

AGC Report 2013



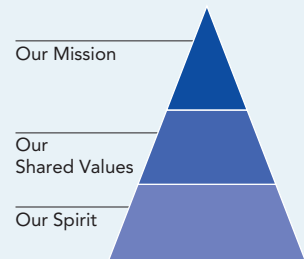
“Look Beyond”

Our Mission—We, the AGC Group, “Look Beyond” to make the world a brighter place.

We will continuously:

- “Look Beyond”** ... Anticipate and envision the future,
- “Look Beyond”** ... Have perspectives beyond our own fields of expertise,
- “Look Beyond”** ... Pursue innovations, not becoming complacent with the status quo.

We will continue to create value worldwide, demonstrating the vast potential of the Group’s entire organization.



Our Shared Values

Innovation & Operational Excellence

- We will seek innovations in technology, product and services beyond conventional concepts and frameworks.
- We will create value directed at our current and potential customer needs, accounting for changes in the business environment and, social and market evolution.
- We will continuously improve all aspects of our operations striving to achieve benchmark performance.

Diversity

- We will respect individual diversity of varied capabilities and personalities.
- We will respect cultural diversity of race, ethnicity, religion, language and nationality.
- We will respect different perspectives and opinions at all times.

Environment

- We will contribute to creation of a sustainable society in harmony with nature as a successful and responsible global citizen.
- We will strive to ensure and further improve occupational health and safety in our working environment.

Integrity

- We will build open and fair relationships with all of our stakeholders based on the highest ethical standards.
- We will comply with all applicable laws and regulations.
- We will fulfill our contractual and legal responsibilities to achieve customer satisfaction and trust.

AGC Group Vision and Policies

Group Vision “Look Beyond”

The Group Vision “Look Beyond” is at the root of all business operations and social activities of the AGC Group. This corporate philosophy will be carried on into the future.

Management Policy

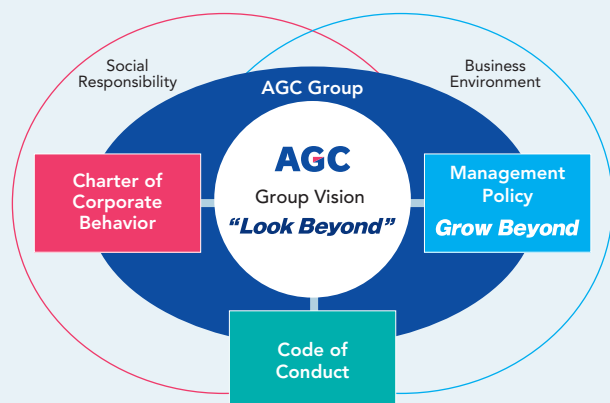
The Management Policy sets the course of action for all of the Group’s business activities providing social and business aspirations, guidelines and directives. It is revised as necessary to reflect changes in the business environment and circumstances of the Group.

AGC Group Charter of Corporate Behavior

The Group Charter sets forth and declares the perspectives that form the basis of our behavior to ensure that the AGC Group will remain a good corporate citizen.

AGC Group Code of Conduct

The Code of Conduct sets forth standards to be observed by all Group members from the perspective of “Integrity” in Our Shared Values under the AGC Group Vision “Look Beyond”.



Contents

AGC Group Vision 1
 Contents/Editorial Policy 2

CEO Message 3

**Towards a Truly Strong
 AGC Group**
**We Are Now Pursuing
 a New Growth Path Under
 the Theme of "Change"**



Special Feature 9

Transforming to Become a Truly Strong AGC Group



The AGC Group's New Business Domains 11
 Initiative 1 13
Cultivating New Growth Markets
 Initiative 2 15
**Accelerating Growth through
 Regional Strategies Tailored to the
 Characteristics of every Market**
 Initiative 3 17
**Combining Glass and Chemical
 Technologies to Offer New Solutions**



Editorial Policy

As a centerpiece of the **"Look Beyond"** Group Vision, the AGC Group has set our mission: "Look Beyond" to make the world a brighter place. On the basis of this mission, the AGC Report 2013 is intended to comprehensibly and clearly report on the Group's corporate vision and business activities during the fiscal year to stakeholders. The report covers specific

Responsibility to Stakeholders 19
 Organizational Governance 21
 Human Rights and Labor Practices 25
 The Environment 31
 Fair Operating Practices 35
 Community Involvement and
 Development 38



Corporate Governance 41



Internal Audits/Risk Management 44



Financial and Non-Financial Highlights 45
 Overview of the AGC Group 47
 Global Network 49
 Board of Directors, Corporate Auditors and
 Executive Officers 51
 Milestones 52

measures and initiatives of the mid-term management plan, **"Grow Beyond-2015"** which aims to realize a truly strong AGC Group, as well as important tasks for fulfilling responsibilities to stakeholders based on the core subjects of ISO 26000 standards.

**Toward a Truly Strong AGC Group
We Are Now Pursuing a New Growth Path Under the Theme of “Change”**



Kazuhiko Ishimura
President & CEO

Taking a Sustainable Approach in Our Pursuit of AGC Group Expansion

In February 2010, the AGC Group formulated its "Aspirations for 2020" as a group-wide vision for the future.

AGC's Aspirations for 2020

The AGC Group aspires to excel as a highly profitable and fast-growing global enterprise making contributions to a sustainable society by:

- Having strong and differentiated technologies
- Incorporating environmental friendliness not only in our products but also in our production processes and business activities
- Contributing to the development of fast-growing regions

In line with these aspirations, the AGC Group has devised a growth strategy that fully incorporates the perspective of sustainability. In concrete terms, we aim to achieve net sales in excess of two trillion yen, boost the earnings power of new products, environment-related products and products for emerging markets, and attain a net sales ratio of over 30% for each of these product categories. At the same time, we will work to excel as a highly profitable and growing global enterprise that also contributes to the realization of a sustainable society.

I want the AGC Group to achieve this from two perspectives. First, we are working to help make the global environment more sustainable. The global environment—including aspects such as environmental protection and energy and food security—forms the basis of a healthy society. Accordingly, the AGC Group

will continue to seek out business opportunities that lead to solutions for pressing global environmental issues, while also creating the value that society expects through environment-related products.

The second perspective is to increase material comfort within society. The desire for comfort and abundance in everyday life is universal. We will make the most of the AGC Group's technological strengths to produce a broad range of new products that can help create more a comfortable living environment. We will promote these products not only in developed countries but also in emerging markets.

By pursuing innovation in working toward these goals, I am confident that the AGC Group can make a significant contribution to realizing a sustainable society.

What Should or Should Not Change in Our Pursuit of "Change"

In order to realize AGC's Aspirations for 2020, we will continue to move forward with our three existing strategies: to be a Glass-technology-driven Company; providing Technology Solutions for Environment and Energy; and pursuing a Second Round of Globalization. While our business environment has undergone major changes over the past few years, there will be no change in our policy of pursuing growth via these three strategies.

That said, recognizing the need to squarely confront the challenges posed by our operating environment, we will be bold about modifying our approach to implementing these strategies as well as the markets in which we pursue them. To that end, I have designated fiscal 2013 as a "Year of Change" and have reorganized the Group's business domains accordingly.

Business Domains that Capitalize on Growing Business Opportunities

In the past, the AGC Group operated in the three business domains of Glazing, Displays, and Electronics & Energy, targeting customers in four industries: building and housing, automotive, electronics, and energy.



Nevertheless, we are now seeing the birth of unprecedented new businesses spanning conventional boundaries, one after the other, as exemplified by Smart

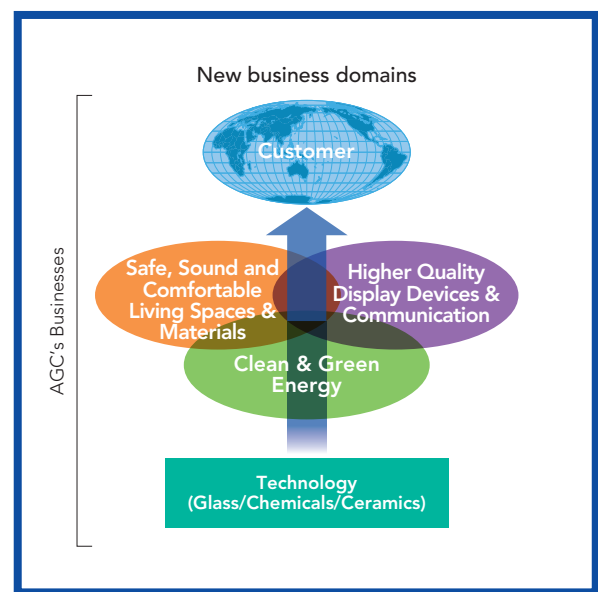
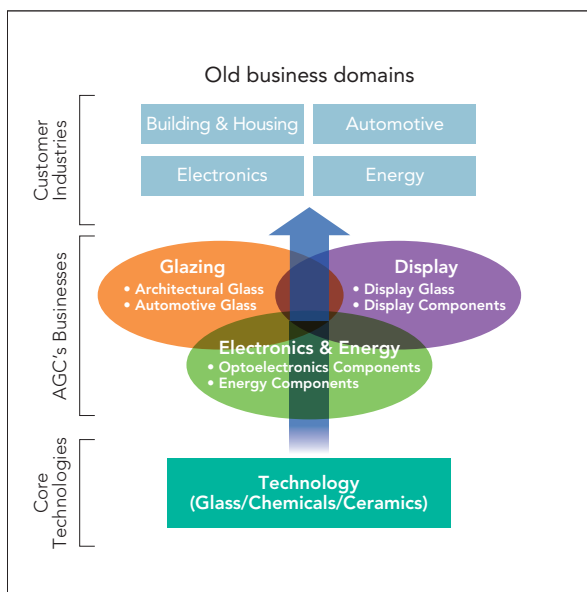
Cities and other cross-industrial projects. For this reason, it is increasingly difficult to navigate the dynamic currents in today's business through conventional ways of thinking. Even within the AGC Group, technologies are becoming increasingly sophisticated and integrated beyond the framework of individual business divisions, as evidenced by its development and marketing of products fusing glass and chemicals technologies.

In light of these circumstances, as opposed to our previous stance of positioning our business domains as

core technologies linked to customer businesses, we have revised our business domains from the following three viewpoints in order to seize business opportunities that are growing beyond our conventional framework of "four industries x three components."

First of all, we have made it clear that we will solely focus on the business areas in which we can make the most of our core technologies of glass, chemicals and ceramics, without considering any other areas of business. Secondly, we have identified business domains that are expected to lead to long-term growth and have designated "Safe, Sound and Comfortable Living Spaces & Materials," "Higher Quality Display Devices & Communications" and "Clean & Green Energy" as the three business domains in which we should focus resources. Lastly, by identifying customers in these new domains, we will strengthen our relationships with them while creating closer ties and promoting mutual growth.

Looking ahead, we will leverage the comprehensive strengths of the AGC Group in these new business domains to offer value that transcends the bounds of each business division.

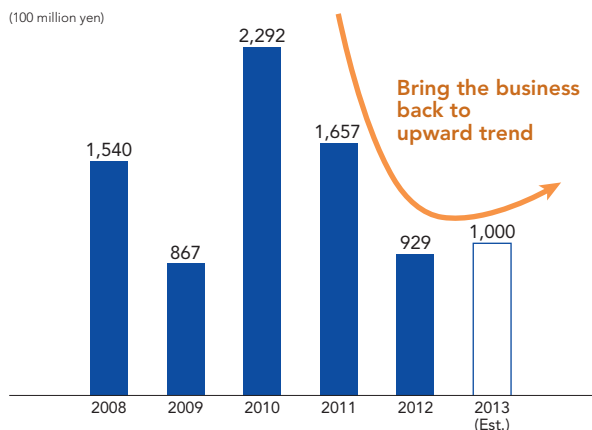


A New Mid-Term Management Plan “Grow Beyond-2015” : for a Truly Strong AGC Group

The mid-term management plan “**Grow Beyond-2015**” outlines the measures we will implement in these new business domains between 2013 and 2015 as part of the process of realizing AGC’s Aspirations for 2020. Our biggest goals over these three years are to deal successfully with major changes in the business environment in order to become a truly strong AGC Group, and to return the Group’s performance to a growth track. As we strive for a balance between growth and financial soundness, we are targeting a return on equity of 12% and a debt-to-equity ratio of no more than 0.5.

In the previous mid-term management plan, “**Grow Beyond-2012**”, the AGC Group did a thorough job of preparing the ground and planting seeds, and now several of those seeds have begun to sprout. From this point on, we will tend them carefully and nurture their growth, even as we continue to sow new seeds.

Projected Changes in Operating Income



Strengthening and Establishing Growth Foundations

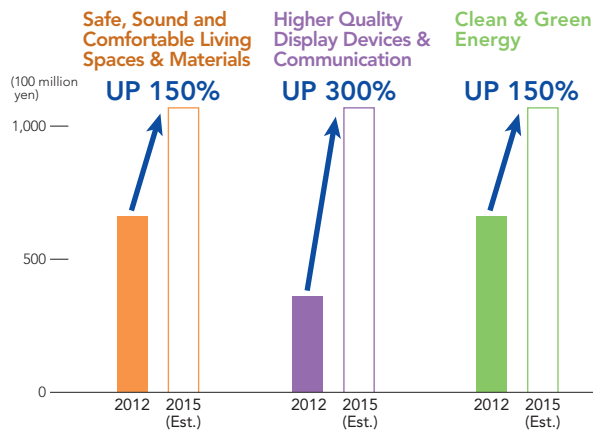
Focusing on Three Business Domains with Growth Potential while Investing Management Resources in Emerging Markets

Designed to realize a truly strong AGC Group, “**Grow Beyond-2015**” sets out two tasks: strengthening and generating substantial results from growth foundations, and putting our business back on an upward trend.

To strengthen and establish foundations that will drive future growth, we will deploy the Group’s three strategies across new business domains, cultivating a new mainstay for growth to follow our flat panel display business.

Examples of products in the Safe, Sound and Comfortable Living Spaces & Materials domain include highly efficient heat insulating/shielding glass, fluoropolymer film, and high-performance automotive glass that cuts ultraviolet and infrared rays. Other examples include life science-related products, such as pharmaceutical and agrochemical intermediates as well as active ingredients that utilize fluorine chemical technology. The AGC Group aims to expand new product sales in these new business domains by 150% over the next three years.

New Product Sales in Each Business Domain



A promising product in the area of Higher Quality Display Devices & Communication is specialty glass for chemical strengthening, the use of which is expanding rapidly in smartphones and other devices. At the same time, as the trend toward higher resolution displays continues, demand for lower thermal shrinkage is increasing in the market for small and medium-sized displays for smartphones. In response to this trend, we have further reduced the thermal shrinkage of our glass substrates for high-resolution liquid crystal displays. I am confident that the AGC Group is the only company that can deliver a product that offers this kind of outstanding performance. Over the next three years, we will work to increase sales of new products in this business domain by 300%.

In the area of Clean & Green Energy, one promising example is the solar PV unit for vertical installation. By focusing on popularizing this product, we will help create clean energy. The novel concept of a vertical panel is that it absorbs light on two surfaces, making it possible to generate power efficiently by—for example—installing the panels as highway noise barriers, or in any other place where light will strike them from all sides. Over the next three years, we expect new product sales to increase by 150%.

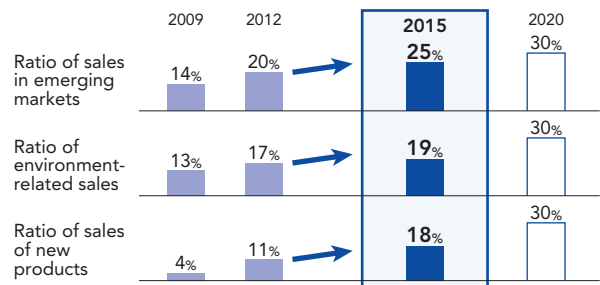
In addition, I anticipate great growth for specialty glass for chemical strengthening in the other two

business domains, as well as in the Higher Quality Display Devices & Communication domain. By expanding applications from displays to homes and automobiles, we aim to increase sales by 500% in three years.

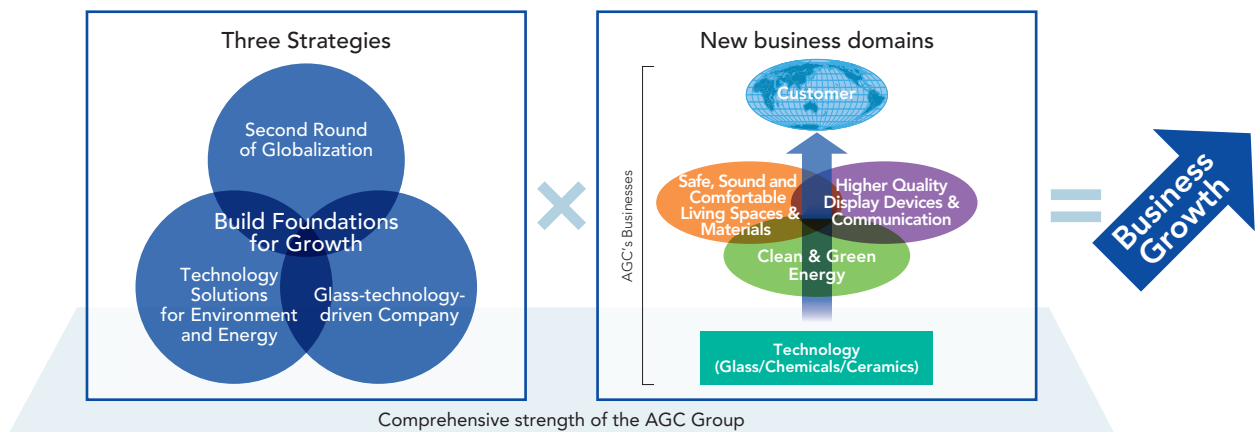
We will also step up our regional strategies. In addition to strengthening operations in Russia and Brazil, we will establish a new regional headquarters in Singapore in 2013. From this base, we will further bolster the AGC Group's presence in Southeast Asia, in which we have an overwhelming share of the market for products including flat glass, automotive glass, and caustic soda.

By implementing these measures, we project sales in emerging markets will account for 25% of total net sales in 2015, environment-related sales for 19%, and sales of new products for 18%.

Projected Sales Ratio in 2015



**Strengthen and Generate Substantial Results from Growth Foundations
—Group's Three Strategies in the New Business Domains—**



Using Glass and Chemicals, in Addition to the High Profitability in Electronics, as a Growth Axis

Returning the Group's Performance to a Growth Track

In our efforts to return our performance to a growth track, we will deploy the following two measures in each of our core businesses: expanding sales by establishing a solid revenue stream from growth foundations, and boosting profits by strengthening the Group's earnings structure.

The Group's Electronics operations is positioned to recover and retain the profitability of the flat-panel display business by launching high-value-added products, including glass substrates for high-resolution liquid crystal displays and ultra-thin flat glass, and by converting to high-efficiency manufacturing equipment that will dramatically improve the productivity of furnaces.

The Glass operations will steadily take advantage of expanding demand from emerging markets, while accelerating the launch of high-value-added products, including architectural energy-saving glass and high-performance automotive glass. We are also aiming for an early recovery of performance in Europe and the United States by building a production and operation structure that reflects demand, and by concentrating on specific sales territories.

The Group's Chemicals operations is set to steadily expand profits from their foundations for growth by expanding operations in Southeast Asia, increasing sales of high-performance fluorine-related products, and strengthening the life science business.

Through these measures, I believe we can make an assured recovery from our lowest point in 2012 by making the Glass and Chemicals Divisions the axes of future growth while maintaining the high profitability of the Electronics Division.

Integrating Our Unique Diversity to Generate Group-wide Comprehensive Strength

Sharing the Joy of Growth with Stakeholders

To strengthen and generate substantial results from growth foundations and put our business back on an upward trend, we will fully leverage the unique strengths of the AGC Group.

These strengths lie in the rich *diversity* cultivated over the AGC Group's 100-year history. The first is our knowledge and expertise regarding *diverse* materials and technologies in glass, chemicals and ceramics.

The second is our insights and capabilities to enter *diverse* markets accumulated through dialogue with its customers over a



broad range of industries. The third is our strong business foundations cultivated in *diverse* geographical areas, which have been expanded by exercising our strengths in Southeast Asia since we first ventured into India in 1956. In addition, the Group has *diverse* human resources who create new value based on their *diversity*. We are not simply adding these strengths together. Through multiplying them, we generate synergy and turn them into the AGC Group's powerful, comprehensive strengths.

In my view, the mission of management is to create products and services in response to society's expectations, contribute to a sustainable society, and share the joy of growing with all stakeholders. We will carry out this mission by maximizing our comprehensive strengths and realize our vision of a truly strong AGC Group.

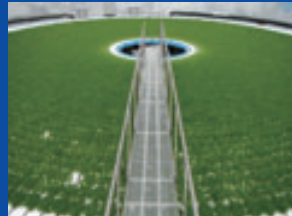
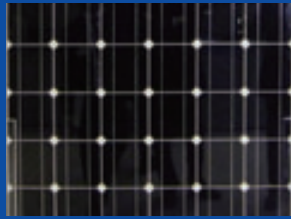
K. Ishimura

Kazuhiko Ishimura
President & CEO

Special
Feature

Transforming to Become a Truly Strong AGC Group

We now live in an era of major economic and social upheavals. Recognizing the scope of these changes, the AGC Group has given serious consideration to how it will move forward in the future to continue growing as a truly strong corporate enterprise. Consequently, it is beginning to take on all-new challenges, capitalizing on the opportunities created by the major shifts in the business environment by applying growth strategies that leverage the Group's comprehensive strengths.



Enhancing its Comprehensive Strengths, the Group Will Respond to the Changing Business Environment with Speed and Precision

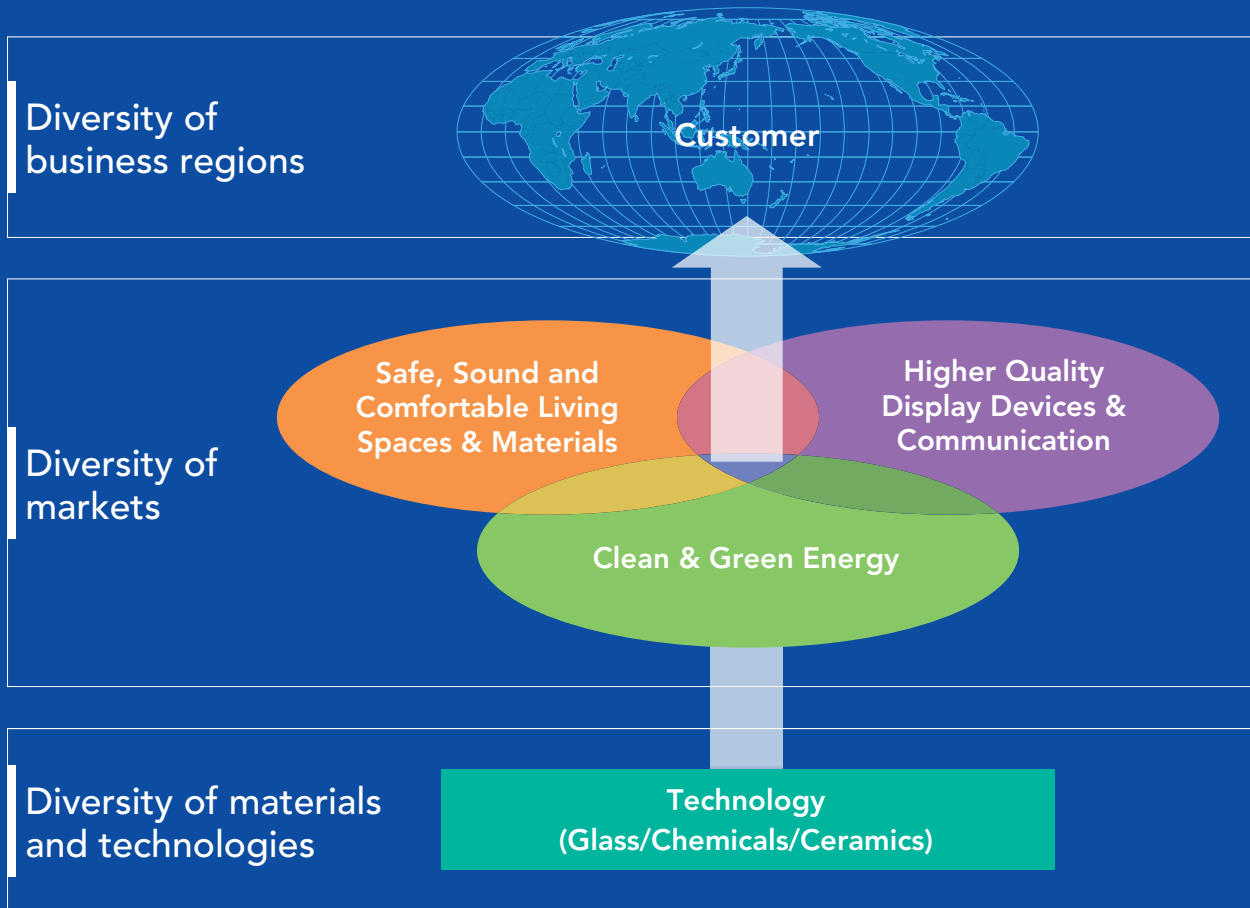
With a view to achieve the AGC Group's Aspirations for 2020 (see page 4 for details), we are undertaking two tasks set out in our mid-term management plan, **"Grow Beyond-2015"**

:strengthening and generating substantial results from growth foundations, and putting our business back on an upward trend. To successfully complete these tasks and become a truly strong corporate enterprise, it is essential that the AGC Group draw on its accomplishments over its 100-year history and respond to the changing business environment with speed and precision.

Yoshinori Hirai

Executive Officer, GM of
Business Development Office

Based on this approach, we intend to pursue a wide range of measures designed to maximize the Group's comprehensive strengths beyond the limits of its In-house Companies in markets and regions that are projected to expand. As part of these efforts, in 2011 we established a Business Development Office to pursue new business opportunities in areas where the domains of the In-house Companies intersect. We took this initiative because the globalization of business and integration of industries is now happening at an accelerating pace, so the Group must respond to new business trends outside the realms of its In-house Company system. Furthermore, we reorganized the Group's business domains in 2013 to clearly designate the markets that it should focus on and the value it can provide to consumers (see page 11 for details). Under this framework, the AGC Group can make the most of its comprehensive strengths in various businesses that extend beyond the confines of specific industries.



Offering Unique Value by Capitalizing on Three Kinds of Diversity

As the business climate continues to shift, the AGC Group is drawing on its comprehensive strengths and leveraging them as competitive advantages.

One of these strengths is its diversity of materials and technologies, particularly in the areas of glass, chemistry and ceramics. It may be no exaggeration to say that the AGC Group is the only corporate enterprise in the world that possesses such a differentiated and wide range of materials and technologies. Furthermore, our policy is to carry out continuous investment in research and technology as a basis for this strength, and enhance this technological foundation in the future.

Another key strength is our ability to operate in diverse markets. Through its extensive experience in dealing with customers from a broad spectrum of industries, the AGC Group has developed the ability to discern and gain access to diverse markets. By leveraging this strength, the Group has succeeded in expanding applications of its specialty glass for

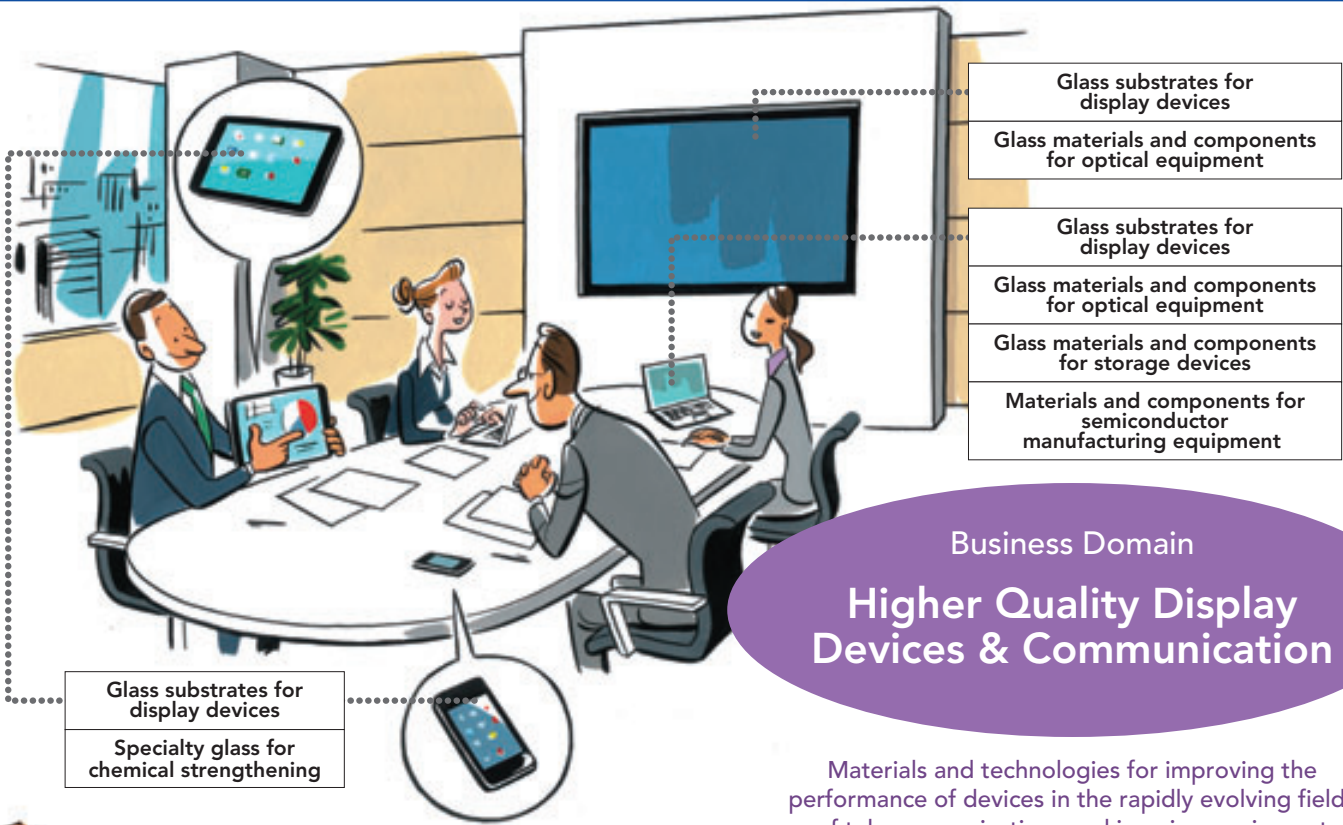
chemical strengthening in numerous industries, even having it adopted as cover glass for smartphones.

With the diversity of business regions that have taken shape around the world, we recognize that it is essential to focus on growing markets. Urban development, the implementation of environmental regulations and the spread of information and communications technologies are all happening simultaneously in emerging markets. Since the AGC Group has gained a solid foothold in these markets, it is now in a position to capitalize on the many business opportunities that arise with market growth.

By capitalizing on these three areas of diversity, the AGC Group intends to demonstrate its unique comprehensive strengths to continue creating the value needed in our era and become a truly strong corporate enterprise.

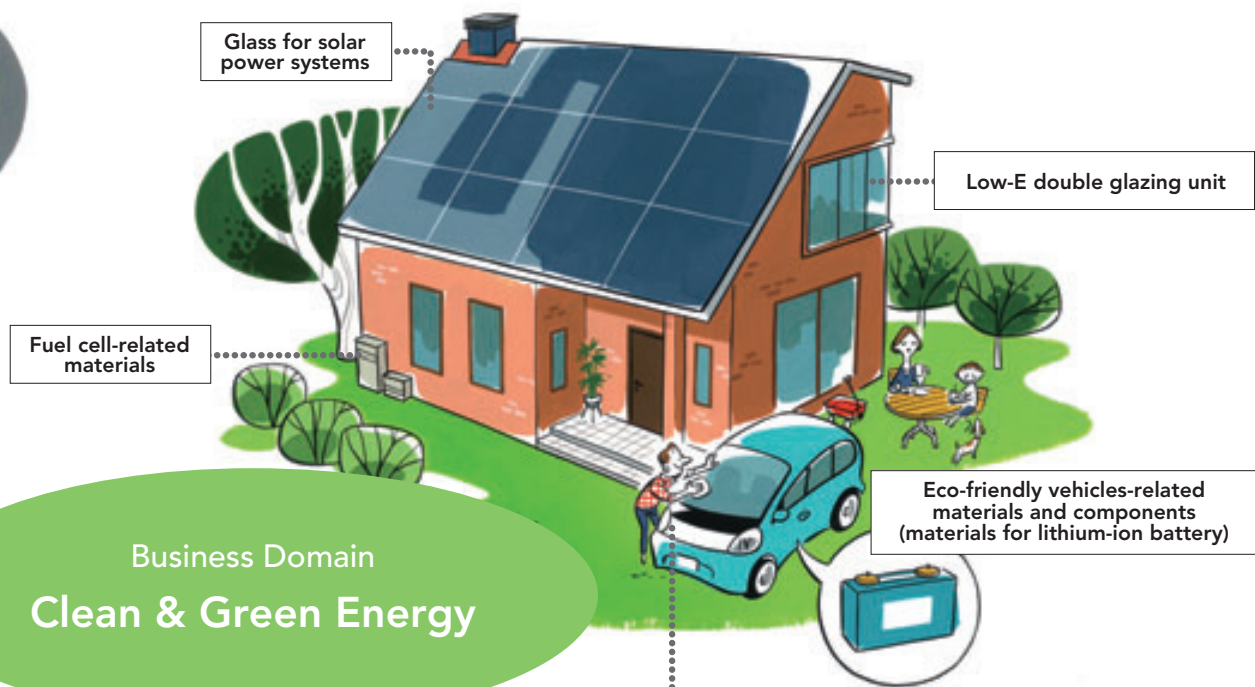
AGC Group's New Business Domains to Capitalize on Opportunities Outside of Previous Frameworks





Business Domain
Higher Quality Display Devices & Communication

Materials and technologies for improving the performance of devices in the rapidly evolving fields of telecommunications and imaging equipment



Business Domain
Clean & Green Energy

Materials and technologies designed to save energy and make it cleaner

Diversity of business regions

Diversity of markets

Diversity of materials and technologies

Initiative 1: Cultivating New Growth Markets

Applying Specialty Glass for Chemical Strengthening to Bring New Innovations to Society

The AGC Group's diversity of materials and technologies is an advantage that it utilized to develop specialty glass for chemical strengthening. This product is scratch resistant and exhibits exceptional strength unattainable by conventional glass. As such, the Group has been supplying it to meet growing market demand as a cover glass for smartphones and other display devices. Moreover, by leveraging the capability to operate in a diversity of markets, the AGC Group seeks to develop new applications for the glass as a high-value-added material that is thin, strong, and resistant to cracking.

Residential

Developing a Lighter and more Compact Glass with Improved Energy-Saving Performance

Utilizing the characteristics of Leoflex™, the AGC Group is developing triple glazing unit that markedly enhance insulation performance with lightweight, pliable and energy-saving features.



For Residences

Railway

Making Train Travel more Pleasant with Energy-Saving Windows that Control the Effects of Sunlight

By employing Leoflex™ light control double glazing unit for window panes in express trains, the weight of the glass can be reduced by 20% compared to conventional glass, thereby helping save energy.



For Trains



Safe, Sound and Comfortable Living Spaces & Material

Automotive

Realizing more Comfortable and Reliable Instrument Operability with Touch Panels

Instruments in vehicles are expected to increasingly feature touch panel operations in the future, and technologies are being developed to integrate the operations of various equipment such as car stereos and air conditioners. Due to the high strength, scratch resistance, and anti-reflective properties of Dragontrail™, it is now being adopted as a cover glass for such console panels.



For Automobiles



Striving to Offer New Value in All Business Domains by Maximizing the Potential of High-Value-Added Materials

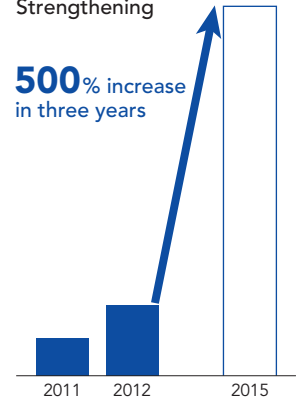
AGC's Dragontrail™, a specialty glass for chemical strengthening¹ developed by utilizing the Group's glass materials design capabilities, has been widely used as cover glass for smartphones, tablet computers and other devices. In addition to exhibiting superior strength and excellent scratch resistance unattainable by resin-based materials, Dragontrail™ can be produced using the float method, which is highly efficient for manufacturing glass. This allows the Group to ensure a very stable supply to customers.

In 2012, the AGC Group unveiled Leoflex™, a chemically strengthened specialty glass for versatile applications. Leveraging its technological expertise and understanding of a broad range of market needs, the Group is promoting applications of Leoflex™ as a strong glass that is hard to break despite its thinness and light weight, thereby creating new value in all business domains.

The AGC Group has positioned its products involving specialty glass for chemical strengthening as growth drivers going forward, and is aiming to increase sales of these products by five times the current level over a three-year period through to 2015.

¹ This is a technique for chemically strengthening the surface of glass by soaking the glass sheets in a chemical solution.

Projected Sales for Specialty Glass for Chemical Strengthening



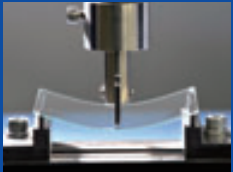
For Displays

**Displays
Dragontrail™ Used in a Wide Array of Touch Panels from Smartphones to Personal Computers**

Renowned for its superior strength, scratch resistance, and stable supply, Dragontrail™ has been adopted by world-leading brands—as well as those in fast-growing countries—as cover glass in smartphones, tablets, notebooks, Ultrabooks™ and all-in-one PCs.



Specialty glass for chemical strengthening

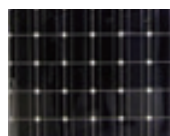


Higher Quality Display Devices & Communication

Clean & Green Energy

**Solar Power Generation
Making Solar Panels Easier to Install by Drastically Reducing the Weight of Solar Panels**

The AGC Group has enabled the weight of solar panels to be reduced by half compared to previous models by using Leoflex™ for the cover glass. This makes it easier for solar panels to be effectively utilized in spaces where installation is difficult due to weight restrictions.



For Solar Power Panels

Diversity of business regions

Diversity of markets

Diversity of materials and
technologies

Initiative 2: Accelerating Growth through Regional Strategies Tailored to the Characteristics of Every Market

Realizing the Potential for Chemicals Operations to Expand Globally

From basic to functional chemical products, the AGC Group's Chemicals operations provides products that make valuable contributions to society and a broad range of industries. While working to enhance its regional strategies tailored to market needs, the Group is capitalizing on the diversity of business regions and leveraging the diversity of its materials and technologies to proactively develop high-value-added products by combining glass and chemistry technologies.

Basic Chemical Products

Strengthening Locally Based Manufacturing and Sales Organizations to Meet Growing Demand in Southeast Asia

The AGC Group supplies numerous basic chemical products, such as caustic soda¹ and sodium bicarbonate, which are essential for various industries and people's livelihoods. The Group expanded internationally at an early stage, setting up electrolysis² plants in Thailand in the 1960s and Indonesia in the 1980s. The AGC Group now has a major presence in Southeast Asia, a dynamic region experiencing robust demand for infrastructure development, as the number-one manufacturer in the caustic soda market. It upgraded its electrolysis facilities to expand production capacity in Thailand and Indonesia in 2011 and 2013, respectively.

Looking ahead, the AGC Group intends to make the most of its diversity of business regions to accelerate business expansion while contributing to the ongoing development of each country where it operates by providing a stable supply of basic chemical products.

¹ A basic industrial chemical used as a material for chemical textile fibers, an ingredient in soap and detergents, and bleach for pulp and paper, among other applications

² Electrolysis to produce caustic soda and chlorine



PT Asahimas Chemical in Indonesia has increased the electrolysis capacity by 30%

Pursuing "Chemistry for a Blue Planet"

Creating Original Added Value by Utilizing Chemistry to Minimize the Burden on the Environment

When the AGC Group launched Chemical operations with the production of soda ash, a principal raw material for glass, it adopted a unique vision summed up by the slogan, "Chemistry for a Blue Planet." Through this approach, the segment has developed products that are useful to society while also minimizing its burden on the environment. For example, it makes full use of byproducts generated by chemical reaction processes to eliminate waste. As a result, Chemicals operations has not only developed basic chemicals but also functional chemicals such as fluorine, thereby creating original high-added-value products. Moreover, the segment collects and recycles chlorofluorocarbon (CFC) in cities and develops environmental products as a way to help reduce environmental load.



**Chemistry
for a Blue Planet**
AGC Chemicals

Creating a safe, secure,
comfortable and environmentally
friendly world with chemical
technology.

Functional Chemicals

Supplying World-Leading Fluorochemicals Globally and Realizing High-Value-Added Glass through Chemical Technologies

The world's top-level fluorochemical products are at the core of the AGC Group's functional chemicals business. The Group supplies a wide spectrum of industries with highly advanced fluorine-based materials that exhibit extremes of temperature, chemical and weather resistance at levels unattainable by conventional resins. The Group's life science business is also applying fluorochemicals as active ingredients for glaucoma treatment. Many of the Group's fluorochemical products have gained prominence worldwide with high global market shares, particularly high-performance fluoropolymer film.

Taking advantage of the diversity of business regions, the AGC Group is currently working to enhance its manufacturing and sales sites in Europe and the United States, and to expand its global supply network to include fast-growing countries such as China and Brazil.

Looking forward, the Group will make full use of its chemical technologies to proactively add more value to its glass products. With its diversity of materials and technologies, the AGC Group will work to realize the potential of new businesses that only it can pursue.



Lumiflon™, highly weather-resistant fluoropolymer resin for coating, was used to coat the Tokyo Sky Tree tower³.

Lumiflon™ exhibits excellent anti-corrosiveness and weather resistance so coatings can last long periods without deteriorating, even outdoors. By reducing the need for frequent recoating, the product helps to reduce waste and conserve resources, meaning less CO₂ is emitted.

³ Business operators: Tobu Railway Co., Ltd. and Tobu Tower Sky Tree Co., Ltd.
Photo by Shinkenchiku-sha



AGC's high-performance fluoropolymer film is used for air-supported domes covering plantations in the city of Rikuzentakata, Japan.

For its lightweight and outstanding performance in terms of weather resistance, light transmission and design flexibility, high-performance fluoropolymer film is employed in a wide range of applications from buildings to greenhouses.

Diversity of business regions

Diversity of markets

Diversity of materials and
technologies**Initiative 3: Combining Glass and Chemical Technologies
to Offer New Solutions**

Self-Adhesive Glass for Optical Bonding Improves the Image Quality of Displays

The AGC Group has developed new technologies that enable cover glass to be directly attached to display devices with ease. The ability to combine glass and chemical technologies via the Group's research and development platform made these technologies possible. Through their application, the AGC Group has successfully commercialized self-adhesive glass for optical bonding¹. This product represents a new solution for significantly improving the image quality of displays.

¹ Used with cover glass and display devices, optical bonding optimizes the refractive index of resin to minimize the loss of light for enhanced visibility.



Back: Conventional LCD with air layer (see page 18)

Front: LCD using self-adhesive glass for optical bonding

Compared with the conventional device, higher contrast and clearer reproduction of dark sections are realized.

Product Highlights

Eliminating the Layer of Air to Improve Display Image Quality

In recent years, cover glass has been widely used for displays in mobile devices and televisions, as a means to enable touch panel operations and protect the screens. Existing units, however, were built with a layer of air (see green text box at right) between the cover glass and display device, increasing the reflection of ambient light and diminishing contrast.

This problem can be solved with self-adhesive glass for optical bonding. This product employs a highly transparent layer of resin that nearly matches the cover glass' refractive index of light. Since it is directly bonded to the display device, it eliminates the air layer (see blue section at right), resulting in higher image quality via the display by reducing the amount of reflected ambient light.

This cover glass is expected to be used in applications for displays of various sizes and purposes, including tablet computers, notebook computers, automotive display panels, wide-screen televisions, and electronic signboards. Looking ahead, the AGC Group will take sales of the product full swing.

Strong Technology Base of the AGC Group

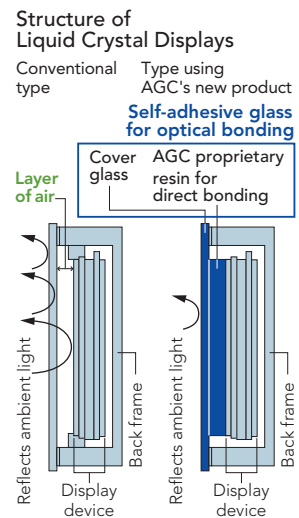
Leveraging an Array of Materials and Technologies to Develop Solutions that only the AGC Group Can Offer

The AGC Group has developed self-adhesive glass for optical bonding by applying its esteemed core technologies in glass materials, organic materials, coating, and glass processing. The resin used for the direct bonding process is a material that could not have been developed without the long-established technologies accumulated in its Chemical operations. The resin is designed to automatically absorb air bubbles that arise when cover glass is laminated to the display device. A solid bond is thereby maintained without any voids or spaces.

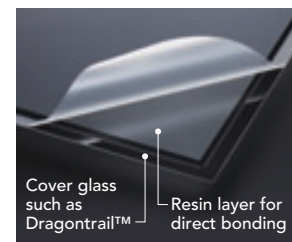
This cover glass is also suitable for IPS mode LCD devices². This type of LCD device is vulnerable to pressure, and conventional bonding methods tend to affect image uniformity when cover glass is attached. AGC's self-adhesive glass is highly compatible with IPS mode LCDs, effectively solving this technical issue.

The cover glass can be removed and re-laminated even after it has been optically bonded. Moreover, the processes for directly bonding the cover glass during production are relatively simple as compared to previous methods, so AGC's self-adhesive glass will help manufacturers lower their workloads and rationalize production.

² IPS stands for "In-Plane Switching," an IPS panel is a type of liquid crystal display that has been widely adopted, especially for mobile devices.



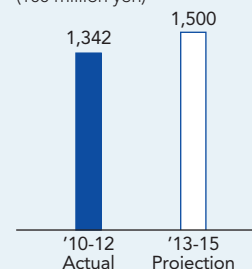
Self-Adhesive Glass for Optical Bonding (As Seen from the Adhesive Side)



R&D Strategies Designed to Support a Solid Technology Platform for the AGC Group

Continuous research and development from a medium- to long-term perspective is essential to build foundations for growth going forward. The AGC Group regularly formulates a Technology Outlook that takes into account long-term global shift related to such factors as energy, raw materials, population and industry trends in its business domains, in order to envision the technologies and products that will be needed in the future. On this basis, the Group maps out a Technology Roadmap to provide direction for its global technology strategies. Moreover, in its mid-term management plan, "Grow Beyond-2015" the AGC Group has designated important research and development areas with the goals of creating new products for the display market and environment- and energy-related markets, and developing manufacturing processes that can significantly improve productivity and energy conservation. By fiscal 2015, the Group plans to spend 150 billion yen on research and development, more than in the last three years.


R&D during the MTP Period (100 million yen)



Responsibility to Stakeholders

In order to fulfill the mission set forth in the Group Vision, the AGG Group adopts behaviors based on "Our Shared Values" (see page 1) with an aim to gain the trust and meet the expectations of society, while contributing to the creation of a sustainable society.

In addition, the AGG Group has established the "AGG Group Charter of Corporate Behavior" to more concretely demonstrate values-based conduct."

 "Charter of Corporate Behavior (full text)" [CSR Information Supplement \(PDF\) P. 1](#)

Proactive Communication with Stakeholders

The corporate behavior of the AGG Group is based in its relations, not only with customers, but with all stakeholders, including shareholders, investors, business partners, governments, NPOs/NGOs, local communities, and employees and their families.

The AGG Group actively discloses corporate information to stakeholders in a timely and appropriate manner. To manage the prompt disclosure of information, the Timely

Information Disclosure Committee holds regular meetings to deliberate and decide on the need to disclose information related to matters under discussion by the Management Committee and Board of Directors, based on disclosure rules of the stock exchange. Furthermore, the AGG Group is promoting interactive communication with stakeholders, providing various opportunities to incorporate their opinions into management plans.

- Information dissemination with press releases
- Exhibition booths at trade shows
- AGG studio showroom
- Customer centers Etc.



Holding a seminar at AGG studio

- Regular stockholders' meetings
- Financial settlement briefings
- Information sessions for investors
- Facility tours
- The newsletter for shareholders, AGG Review Etc.



Earnings presentation (Japan)

- The Group's in-house magazine, We are AGG!
- Information over the Intranet
- Opportunities to exchange views directly with the CEO
- Employee satisfaction surveys
- Help Lines
- Labor-management talks Etc.



The Group's in-house magazine, We are AGG!

Communication with Stakeholders



- Satisfaction surveys
- Social gatherings
- Dialogue through the Asahi Glass Supplier's Association Etc.



Meeting with business partners (Japan)

- Plant tours, job training
- Employee participation in local events
- Social contribution activities Etc.



Volunteer activities (South Korea)

- Periodic opinion exchanges
- Cooperation on individual projects Etc.



Site dialogue (Thailand)

- Dialogue through economic organizations and industry associations
- Dialogue and cooperation with local governments
- Social contribution activities Etc.



Receiving the CSR-DIW Contribution Award (Thailand)

 For more information on stakeholder communication (detail) www.agc.com/english/csr/communication/



About the icons on each page:



Related information can be found on the CSR Website



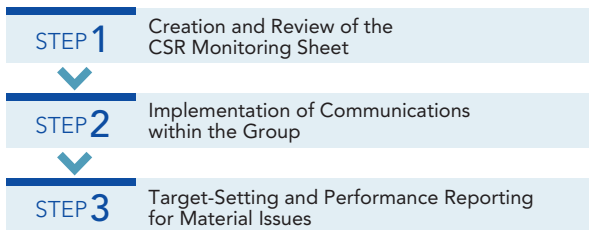
Related data can be found in the CSR Information Supplement (PDF) www.agc.com/english/csr/book/

Developing the CSR Monitoring Framework from a Stakeholder Perspective

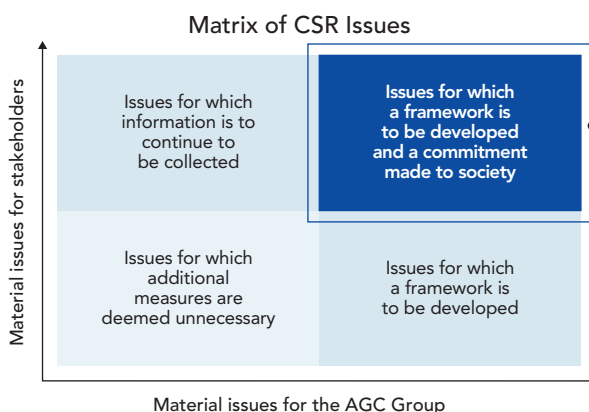
In fiscal 2011, the AGC Group began to develop a CSR monitoring framework based on ISO 26000 to assess the Group's CSR activities from the perspective of stakeholders and strengthen measures and policies that benefit the community. Within the matrix of CSR issues established in this framework, targets and results regarding issues for which frameworks must be developed and commitments to society made are reported to stakeholders through the AGC Report and other channels.

In addition, CSR issues are periodically reviewed to reflect social and business trends. In fiscal 2012, Sustainable resource use and Promoting social responsibility in the value chain were elevated within the matrix to "Issues for which a framework is to be developed and a commitment made to society."

CSR Monitoring Framework



[CSR Promotion System, CSR Monitoring Framework \(detail\)](http://www.agc.com/english/csr/agcgroupcsr/system.html)



Issues for which a Framework Is to be Developed and a Commitment Made to Society

Material Issues 1
 Core subjects
Organizational Governance ▶ P. 21
 Issues: • Decision-making processes and structures

Material Issues 2
 Core subjects
Human Rights and Labor Practices ▶ P. 25
 Issues: • Conditions of work and social protection
 • Human development and training in the workplace
 • Health and safety at work




Material Issues 3
 Core subjects
The Environment ▶ P. 31
 Issues: • Prevention of pollution
 • Climate change mitigation and adaptation
 • Sustainable resource use NEW

Material Issues 4
 Core subjects
Fair Operating Practices ▶ P. 35
 Issues: • Fair competition
 • Anti-corruption
 • Promoting social responsibility in the value chain NEW

Note: Core subjects and issues are based on ISO 26000.

Organizational Governance

The management of the AGC Group strives to achieve efficient and fully transparent operations as it works to undertake proper and effective decision-making and management execution.

Plan	Do
Fiscal 2012 targets	Fiscal 2012 major initiative results
<p>1  Continue to ensure effective communications in and outside the Group</p> <ul style="list-style-type: none"> • Continue to gain society's trust by conducting timely and appropriate disclosure • Publish an integrated report to further clarify the AGC Group's stance and efforts regarding the promotion of business and CSR initiatives as a single entity • Enhance communications both in and outside the Group to establish a stronger basis for CSR activities 	<ul style="list-style-type: none"> • Implementation of timely information delivery regarding performance and measures to stakeholders outside the company through PR and IR functions • Publication of the AGC Report 2012, an integrated version of the former AGC Report (information regarding the company and its business) and the CSR Report • Selection by the DJSI World Index, a major international socially responsible investing (SRI) index • Revision of the AGC Group Charter of Corporate Behavior in response to changes in social trends. Revised content is shared within the Group through In-house magazines and other methods
<p>2  Implementing effective audits and promoting the PDCA cycle</p> <ul style="list-style-type: none"> • Continue audits related to the global antitrust law observance system and the creation of mechanisms to prevent leakage of confidential information • Conduct theme audits targeting the completion and application of the business continuity plan (BCP) across Group companies in Asia including Japan 	<ul style="list-style-type: none"> • Conducted internal audits at 57 sites in the Group, placing particular importance on the Group's global uniformity and covering the establishment of a framework for complying with antitrust laws and protecting confidential information • Conducted 23 theme audits targeting the completion and application status of the BCPs across Group companies in Asia including Japan
<p>3  Continue to promote compliance</p> <ul style="list-style-type: none"> • Revise the Group Code of Conduct • Conduct ongoing compliance training and online training programs for all Group employees • Further expand the scope of Group employees requested to submit Personal Certifications on the Code of Conduct 	<ul style="list-style-type: none"> • Revision of the AGC Group Code of Conduct and creation of booklets in editions geared for major countries and regions • Approximately 12,000 employees (Japan) and 1,200 employees (North America) received online training (e-learning) and 3,200 employees (Japan) and 3,400 employees (Europe and America) received group training in compliance¹ • Number of employees subject to submitting Personal Certifications on the Code of Conduct is about 40,000, representing 81% of all Group employees

¹ Indicates training implemented directly by the compliance committee office in Asia including Japan, Europe and North America only. Training implemented by Group companies is not included.

AGC Flat Glass (Thailand) Public CSR Recognized by the Ministry of Industry in Thailand

In 2009, AGC Flat Glass (Thailand) Public (AFT) obtained the CSR-DIW certification, the standard based on ISO 26000 in Thailand set by the Ministry of Industry's Department of Industrial Works (DIW). AFT has since been taking a leading role in encouraging Thai industry to engage in CSR activities, and has helped expand the number of companies obtaining CSR-DIW certification. In recognition of these efforts, AFT received the CSR-DIW Contribution Award for the third consecutive year in fiscal 2012. The award was given to only 200 (0.14 %) among about 140,000 companies operating factories in Thailand.

AFT will continue its participation in the CSR-DIW initiative as it further develops its CSR activities.



CSR-DIW Contribution Award

Electronics Company Compliance Training in South Korea

At Hanwook Techno Glass, all employees undertake compliance training on a continuous basis. The training includes devices to pique trainee's interest and increase understanding, such as using the local news and uniquely produced visuals as training materials.

In fiscal 2012, the training made use of actual cases for ease of understanding, such as an incident involving the embezzlement of public funds in South Korea. In addition, a PDCA cycle is being implemented: trainees are given a test at the end of the training to gauge their level of understanding, and the resulting information is put to use in the following year's training. This system is being introduced at other Korean Group companies as well.



The Compliance Training

Check Self- evaluation	Act Fiscal 2013 targets	ISO 26000 related actions and expectations (major issues)
A	<p>Continue to ensure effective communications in and outside the Group</p> <ul style="list-style-type: none"> • Use the AGC Report to communicate the stance and efforts of the AGC Group with regard to promoting business and CSR activities in a way that is easier to understand • Be selected by major SRI Indexes by appropriately responding to the demands of society through communications with stockholders, investors and the media, and by moving forward with information disclosure 	<p>Decision-making processes and structures</p> <ul style="list-style-type: none"> • Nurture an environment in which the principle of social responsibility (accountability, transparency) is practiced
A	<p>Implementing effective audits and promoting the PDCA cycle</p> <ul style="list-style-type: none"> • Continue conducting audits of the creation of frameworks in the Group for observing antitrust laws and measures for preventing leakage of confidential information • Conduct theme audits targeting the completion and application of the BCPs across Group companies in Asia including Japan 	<p>Decision-making processes and structures</p> <ul style="list-style-type: none"> • Periodically review and evaluate the governance process
A	<p>Continue to promote compliance</p> <ul style="list-style-type: none"> • Complete revisions of the AGC Group Code of Conduct (12 types in 18 languages) and promote them throughout the Group • Continue to conduct ongoing compliance training and online training programs for Group employees • Further expand the scope of Group employees requested to submit Personal Certifications on the Code of Conduct (employees subject to alternate policies if the system renders the submission of certifications difficult) 	<p>Decision-making processes and structures</p> <ul style="list-style-type: none"> • Nurture an environment in which the principle of social responsibility (ethical behavior, respect for the rule of law) is practiced

Criteria for Self-evaluation A: Satisfactory level, in which the intended target has been achieved
 B: Almost satisfactory level, in which a part of the intended target has not yet been achieved and some issues still remain
 C: Unsatisfactory level, in which the intended target has not been achieved

Key Performance Data

Approximately 40,000 Members, 81% of All Employees, Are Set as Subject to Submission of Personal Certification on the Code of Conduct

In order to renew awareness of compliance and to take a fresh look at business affairs and workplaces, the AGC Group requires employees to periodically submit written pledges to observe the AGC Group Code of Conduct.

In fiscal 2012, 40,000 employees are set as subject to personal certification submissions, which is equivalent to 81% of all Group employees.



Percentage of Employees Subject to Personal Certification Submissions

81 % (approx. 40,000)

“Shared Compliance Training for Shop-Floor Workers in Europe”

Emmanuel Hazard
 AGC Glass Europe
 Vice-President, Public Affairs & Risk Management Director
 Chairman of Europe Compliance Committee


Compliance training specifically for shop-floor workers has been developed by AGC Glass Europe. It is aimed at ensuring common knowledge and awareness of ethics, regardless of country or plant.



This training uses original material designed to make compliance more appealing: the code of conduct is illustrated with cartoons and focuses on worker-relevant content. Qualified internal instructors are to train the workers through a quiz-based program, making compliance training more enjoyable.

Training has successfully started in the pilot automotive plant of Fleurus (Belgium) and should be implemented throughout Europe in 2013.

Organizational Governance

 **Continue to ensure effective communications in and outside the Group** Self-evaluation
A

Participation in External Initiative

The AGC Group is a member of the World Business Council for Sustainable Development (WBCSD) along with about 200 other companies around the world.




Additionally, AGC Flat Glass (Thailand) Public participated in the CSR-DIW Initiative promoted by the Thailand Ministry of Industry's Department of Industrial Works (DIW) to gain CSR certification based on ISO 26000 standards. Asahi Glass is a member of the Council for Better Corporate Citizenship (CBCC) and Group companies are also actively involved in initiatives in their respective countries and regions.

Participating in Environmental Conservation Initiatives as a WBCSD Member Company

The AGC Group is a member of the Swiss-based WBCSD and participates in activities closely related to the Group.

In fiscal 2012, the Group continued its participation in the Urban Infrastructure Initiative (UII), proposing urban planning, sewer improvements, and other aspects of sustainable city creation in areas such as the state of Gujarat in India. In this project, inherent needs are uncovered through dialogue with cities, and the Group cooperates with other participating corporations that specialize in various fields to find optimal solutions.

Although the UII project ends in fiscal 2013, the Group will also participate in Energy Efficiency in Buildings Phase II (EEB 2.0), a project that promotes ways to make buildings more energy-efficient.

 **Implementing effective audits and promoting the PDCA cycle** Self-evaluation
A

Establishment of Global Priority Audit Items

In order to maintain the independence of internal auditing divisions and implement effective and efficient auditing, based on the internal audit system (see page 44), the auditing divisions promote the improvement of the organization by monitoring them, while the global leader promptly reports the results to the Group CEO and periodically submits reports to the Board of Corporate Auditors and the Board of Directors.

The Group gives global priority to certain audit items. In fiscal 2012, for the second fiscal year in a row, observance of antitrust law and management of confidential information were set as priority items. In addition, on top of each organization's regular audits, the region of Asia including Japan is implementing theme audits, in which a theme is established and the regulation status is audited across the organization. In fiscal 2012, audits of the maintenance and application status of the BCP regarding natural disasters were implemented at 23 locations in four countries.

In 2011, the Group began implementing pre-operation audits, in which the development status of new companies' internal controls is audited before the companies begin operating. In 2012, pre-operation audits were implemented for new companies in China and Brazil.

In Focus

AGC Group Selected for the Dow Jones Sustainability World Index

As in 2011, the AGC Group was continuously selected for the Dow Jones Sustainability World Index (DJSI World)¹, one of the major indexes for Socially Responsible Investment (SRI).

Every year, the DJSI comprehensively evaluates approximately 2,500 companies around the world with high total market values from the perspectives of economic, environmental and social sustainability, selecting the top 10% for its World Index. In 2012, 340 companies (including 20 Japanese corporations) were selected. As the AGC

Group is expected to show sustainable long-term growth, it was continuously selected as an Index member brand.

¹ DJSI is the SRI index created jointly by Dow Jones in the United States and Sustainability Asset Management (SAM) in Switzerland.





Continue to promote compliance



Establishment of Global Compliance System

The AGC Group has established three compliance committees in the regions of Europe, North America and Asia including Japan, below the Global Compliance Leader. Each compliance committee plans, prepares and implements compliance programs and then monitors its region's compliance efforts. Further, the committees hold global compliance meetings to draw up policies, measures and other matters for the Group as a whole, the results of which are reported to the Board of Directors. In addition, the AGC Group has established a guideline for reporting compliance issues to promptly report information on serious violations of compliance to top management.

Global Compliance System [CSR Information Supplement P. 3](#)

Revision of the AGC Group Code of Conduct

The AGC Group Code of Conduct was established in June 2008 to ensure that all members of the AGC Group share the same values. The code comprises global requirements of business conduct for all employees in the Group to follow, as well as regional supplements that take into account the differing laws and business customs of respective countries and regions and include items to supplement the global requirements.

In fiscal 2012, the Code of Conduct was revised based on changes in social conditions and on revisions to laws in countries where the Group operates, while Group-wide needs were taken into consideration from the perspective of compliance.



Code of Conduct (Items for global requirements) [CSR Information Supplement P. 3](#)

Globally Establishing Help Lines

The AGC Group has established compliance help lines² for the Group as a whole and for each individual company to serve as a consultation service on compliance-related issues. To encourage employees to use the service, the Group protects the anonymity of callers and strictly forbids any act of retaliation against anyone who makes a report in good faith. When users offer their real names, efforts are made to facilitate effective two-way communication and provide feedback on the status and results of handling reported problems.

² National and regional help lines have been set up in Europe, North America, China, Japan, South Korea, and Taiwan.

Number of help line consultations [CSR Information Supplement P. 3](#)

Implementing Compliance Training

In order to promote its Code of Conduct globally, the AGC Group provides various training opportunities to its employees around the world.

For example, principally in Japan, Europe and North America, online training is continuously implemented for those with e-mail addresses. In Japan, questions from a previous session for which the rate of correct answers had been low were incorporated again in fiscal 2012, with the goal of strengthening understanding. In Europe and North America, the Group implements online training on a predetermined theme on a regular basis.

In Europe, in addition to online training, the AGC Group strives to train the leaders of each group as compliance instructors, who will lead to conduct classroom training for their subordinates. Materials incorporate illustrations and quizzes and are designed to be easy to understand.



The illustrated explanation of the Code of Conduct

Compliance training results [CSR Information Supplement P. 3](#)

Please refer to "Corporate Governance" on page 41 and "Internal Audits/Risk Management" on page 44

Content published on the Web: www.agc.com/english/csr/integrity/

Risk Management

- Measures for Pandemic Influenza
- Formulating a BCP in Accordance with the AGC Group Basic Principle to Cope with Natural Disasters

Internal Audits




- Implementation of Environmental Safety and Security Audits

[Download Code of Conduct](#)

Human Rights and Labor Practices

The AGC Group is working to create a workplace environment that is safe and rewarding, while achieving continuous growth with mutual respect among employees.

Workplace Environment and Human Resource Development

Plan Fiscal 2012 targets	Do Fiscal 2012 major initiative results
<p>1  Create a work environment where employees can work with satisfaction and pride</p> <ul style="list-style-type: none"> • Implement a second voluntary self-inspection of human rights and labor practices within the Group • Promote the Group-wide development of measures to improve employee satisfaction, and create opportunities to regularly review related activities undertaken at each In-house organization • Continue to implement the award system while making improvements as a means to award jointly implemented best practices and efforts to create a work environment that recognizes and appraises achievements. 	<ul style="list-style-type: none"> • The efforts of each organization regarding policies given as the Group-wide development of measures to improve employee satisfaction and their status were shared through the company intranet and In-house magazines • The overall number of awards was increased by 6%. Awards given outside Japan increased by 16%, and, in particular, the number of efforts in China and Indonesia, which are positioned as fast-growing markets, increased
<p>2  Develop human resources that can drive the Group forward</p> <ul style="list-style-type: none"> • Improve the content of next-generation leader training • Continue employing global management staff¹ 	<ul style="list-style-type: none"> • Improved the content of next-generation leader training and continued implementation • Began working to hire local university graduates overseas as well as in Japan
<p>3  Enhance employee education and training programs</p> <ul style="list-style-type: none"> • Develop new training programs that make use of online training • Expand the scope of the AGC Group improvement activities 	<ul style="list-style-type: none"> • Began providing training programs using Web systems, beginning with English and Chinese language training • At the end of December 2012, activities were taking place at 1.6 times more locations globally than in 2011

¹ Human resources whose achievement at a global level is expected.

AGC Automotive (Thailand)
Thailand's Best Practice Workplace on Labor Relations and Labor Welfare Award Won for 9th Consecutive Year

In September 2012, AGC Automotive (Thailand) (AATH) won a Best Practice Workplace on Labor Relations and Labor Welfare Award from the Thai Government. The government annually chooses the award winners by sending officials from the Department of Labor Protection and Welfare to assess and interview both their management and employees. This is AATH's ninth consecutive win since 2004.

At AATH, management and employee representatives strive for mutual understanding by staying in close communication. At monthly meetings, management seeks to foster understanding of company policy, while employees have the opportunity to express their opinions and make requests. Employee feedback is then incorporated into improvement plans, with progress tracked monthly. Practices such as these have allowed us to create a positive long-term labor-management relationship. The award was received in recognition of such efforts.

Electronics Company
Global Leader Training Initiatives in South Korea and Taiwan

To encourage the localization of Group company operations, the Electronics Company is actively promoting the fusion of different cultures and cultivation of global leaders. As part of these efforts, local leaders from overseas locations have been invited to Japan for training and practical exercises since 2011. (Two trainees from Taiwan and one from South Korea in fiscal 2012.)

The goal of the training is to impart knowledge of the AGC Group's overall image and of the decision-making processes at the head office, as well as to give trainees the skills to handle all aspects of division management as local leaders. It is also intended to improve motivation of the trainees by expanding their workplace authority following the training.

Check Self-evaluation	Act Fiscal 2013 targets	ISO 26000 related actions and expectations (major issues)
B ²	<p>Create a work environment where employees can work with satisfaction and pride</p> <ul style="list-style-type: none"> • Implement voluntary self-inspections of human rights and labor practices within the Group • Implement the fourth ES survey • Continue to implement the award system while making improvements as a means to award jointly implemented best practices and efforts to create a work environment that recognizes and appraises achievements 	<p>Conditions of work and social protection</p> <ul style="list-style-type: none"> • Confirm the compliance of work condition with national laws and regulations and international labor standards • Comply with any obligation concerning the provision of protection for workers in the country of operation • Comply with the working hours established in laws or regulations
A	<p>Enhance employee education and training programs</p> <ul style="list-style-type: none"> • Improve the content of next-generation leader training • Expand the scope of registrants of Skill Map (see Key Performance Data below) • Clearly indicate the locations at which AGC Group improvement activities will be developed, then implement efficient development • Create an environment in which efficient learning may take place with no time or location constraints 	<p>Human development and training in the workplace</p> <ul style="list-style-type: none"> • Provide all workers at all stages of their work experience with access to skills development, training and apprenticeships • Provide all workers at all stages of their work experience with access to opportunities for career advancement
A		

Criteria for Self-evaluation A: Satisfactory level, in which the intended target has been achieved
 B: Almost satisfactory level, in which a part of the intended target has not yet been achieved and some issues still remain
 C: Unsatisfactory level, in which the intended target has not been achieved


² Because no voluntary self-inspection of human rights and labor practices within the Group has been performed.

Key Performance Data

Registration in Skill Map Personnel Database

In 2010, the AGC Group began applying Skill Map, a personnel database in which its employees around the world are registered by specialization (26 technical categories, 13 sales and administrative categories).

The purpose of Skill Map is to encourage interaction among personnel beyond national, regional and divisional boundaries, and to further strengthen individual abilities and the Group's competitiveness. By the end of December 2012, approximately 7,300 employees had been registered.

 **Skill Map Registrants**
 Approx. **7,300** employees




“Learning New Approaches in the Head Office to Improve Safety Management in Thailand”

Rattanavichayalert Duangkamon
 Glass Company Japan/Asia Pacific CSR Office

I have been in charge of safety management since transferring to the Japan head office from AGC Flat Glass (Thailand) Public (AFT) in October 2012. I found the Japanese self-driven in working towards common goals and noticed AGC's prominent efforts to promote different work methods and diversity among employees. I hope to return to Thailand with refined expertise in safety, management skills and the values system of diversity to help make AFT be more productive, effective and creative.



Occupational Health and Safety

Plan	Do
Fiscal 2012 targets	Fiscal 2012 major initiative results
<p>1  Foster the Group's safety management activities</p> <ul style="list-style-type: none"> • Improve the effectiveness of the OHSMS¹ • Reduce action-related accidents and accidents involving elderly workers • Continue to enhance education on health and safety, including safety promotion activities • Raise the level of hygiene management 	<ul style="list-style-type: none"> • Obtained third-party certification of the OHSMS at 85 plants globally as of December 31, 2012 • Serious Accident Eradication Project launched • In addition to globally sharing a textbook on human error prevention and using it in safety training at manufacturing sites, the mental and physical functions of elderly workers were measured with cooperation from specialized agencies • In Japan, approximately 140 Core Safety Facilitators were trained over four years through safety promotion activities • In Japan, a stratified mental health seminar was introduced, and the Group began a mental health project and implemented status surveys at major locations
<p>2  Reduce risks by improving health and safety audits</p> <ul style="list-style-type: none"> • Conduct audits particularly at plants with high health and safety risks while developing a more global auditing system 	
<p>3  Promote and ensure machinery safety</p> <ul style="list-style-type: none"> • Improve the efficiency of the Prior Safety Assessment System of manufacturing equipment • Expand the implementation of education related to machinery safety 	

¹ The Occupational Health & Safety Management System

AGC Group

Hosting Safety and Health Symposium in China

In May 2012, the OHS Global Symposium was held at AGC Flat Glass (Suzhou) Co., Ltd in China. Approximately 80 employees from Group companies in various countries participated, sharing policies, issues and best practices regarding safety and health.

At the meeting, particular emphasis was placed on lowering the risk of serious accidents, and participants confirmed the policy of promoting preventative measures across the AGC Group, and promotion methods. In addition, they discussed the use of a textbook on human error prevention, which categorizes unsafe actions and summarizes prevention methods in each category.



Members of the OHS Global Symposium

AGC Glass Europe

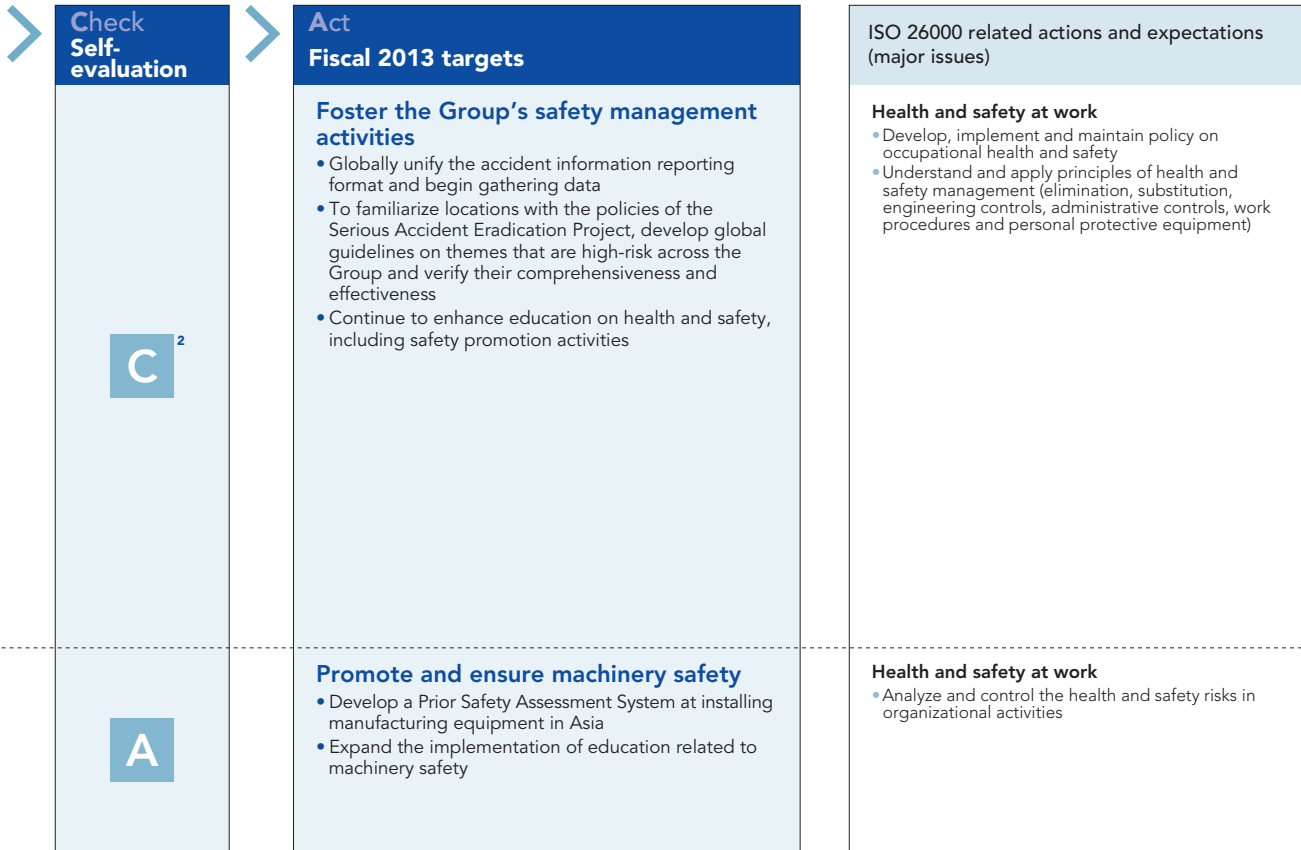
Improving Safety Practices Based on a 360° Assessment

In 2012, AGC Glass Europe (AGEU) launched a 360° assessment to evaluate its safety management. Based on assessment results of 15 plants around Europe, AGEU created a 360° Master Plan on Safety to proactively lower the risk of occupational accidents. AGEU also initiated a training program for top managers from Belgium and the Netherlands in December 2012. The program is set to be rolled out in all AGEU countries in 2013.

Furthermore, AGEU established its Charter of 10 Safety Principles with the aim to promote uniform safety standards company-wide. It has continued raising awareness of safety through a wide range of measures.



Participants in the "Stepping Up for Safety" training for top managers



Criteria for Self-evaluation A: Satisfactory level, in which the intended target has been achieved
 B: Almost satisfactory level, in which a part of the intended target has not yet been achieved and some issues still remain
 C: Unsatisfactory level, in which the intended target has not been achieved

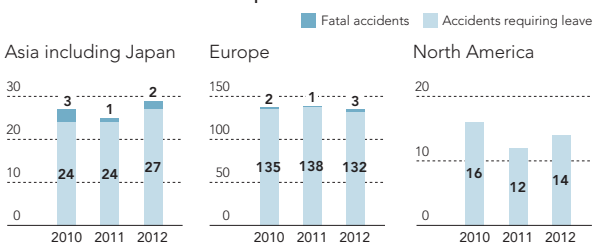
² Due to the occurrence of five fatal accidents within the AGC Group

Key Performance Data

Serious Work-Related Accidents by the Numbers

In fiscal 2012, there were five fatal accidents (two in Asia and three in Europe). To improve the situation, the AGC Group is promoting the Serious Accident Eradication Project (see page 30).

Trends in Number of Occupational Accidents



Note: The Assessment Criteria for Accident Classification for accidents requiring leave differ between Japan/Asia, Europe and North America, so it is impossible to perform a simple comparison of incidents.


“Thorough Preventative Measures Are What’s Important, Not Corrective Measures”

Dr. Masao Mukaidono
 Doctor of Engineering, Professor Emeritus, Meiji University



Focusing on major industrial accident risks and preventing these accidents is of primary importance in safety management. The AGC Group has launched the Serious Accident Eradication Project and is focusing on major incidents and preventing accidents from both “hard” (machinery) and “soft” (human) angles. I highly approve of this course of action. However, the number of major accidents increased in fiscal 2012, which means, unfortunately, that a problem exists. Correcting it will take continuous, painstaking effort. To this end, please clarify Group policy and steadily introduce counter-measures. I look forward to positive results.

Workplace Environment and Human Resource Development


 **Create a work environment where employees can work with satisfaction and pride** Self-evaluation **B**

Respect for Human Rights and Sufficient Labor Practices

As specified in the Respect for People principles of the AGC Group Charter of Corporate Behavior, the AGC Group strives to respect human rights while forbidding discrimination forced labor, child labor, or any violation of human rights. In 2010, to determine the level of compliance with the Charter at each of its Group companies, the AGC Group created a survey form for Group-wide distribution. Using this form, 157 companies conducted voluntary inspections and, based on the results, necessary corrective measures were quickly implemented. In order to ensure continued compliance, inspections will be carried out again in 2013 using a new form updated to reflect societal trends. In the event that problems related to human rights or labor issues occur, they will be addressed jointly by the human resources department and the workplaces involved. Meanwhile, issues reported via the Group's help lines are handled by those in charge of compliance.

Making the Most of Diversity

Based on its management outlook and business development strategies, in February 2011 the AGC Group began drawing a big picture of its organization and human resources in 2020 with the aim to draw on its diversity —the source of the Group's competitiveness over the long term. In fiscal 2011, following a tally of the total number of managers and employees working in the Group at present, the number of employees needed in each segment and country to implement its strategies for 2020 was determined. Based on these results, the Group set priority tasks over the medium to long term and is carrying out an array of initiatives designed to complete these tasks.

 Employee composition, and recruitment and labor data [CSR Information Supplement P. 6-7](#)

 **Enhance employee education and training programs** Self-evaluation **A**

Developing the Employee Education and Training System

The AGC Group is committed to the idea that Our People are Our Strength, as found in its management policy, and is taking steps to develop an education system to help its employees grow. In addition to stratified training in necessary skills and techniques, the Group is establishing a training system geared for issues specific to each In-house Company.

In addition, due to recognition of the fact that both individual techniques and production management technology are important in strengthening business, a specialized division was established in fiscal 2012 to promote the improvement of production management technology beyond the boundaries of each of the Group companies. It also started offering training lectures based on the latest knowledge and scientific methods.

AGC Group will continue supporting the effective growth of employees by reviewing the education system and its content.

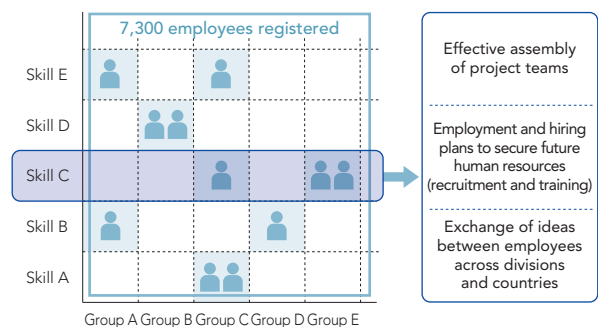
 Employee education and training data [CSR Information Supplement P. 7](#)

Applying the Skill Map Personnel Database

In 2010, the AGC Group began applying the personnel database Skill Map, in which Group employees are registered according to their fields of specialization (26 technical categories, 13 sales and administrative categories). The purpose of Skill Map is to encourage interaction among personnel beyond national, regional and divisional boundaries, and to further strengthen individual abilities and the Group's competitiveness. By the end of December 2012, approximately 7,300 employees were registered.


In addition to utilizing Skill Map to assemble effective teams for cross-divisional projects and to systematically plan the security of human resources, it will be used to improve problem solving at a Group level and to develop expertise in each specialization through in-house conferences and workshops.

The Skill Map System



In Focus

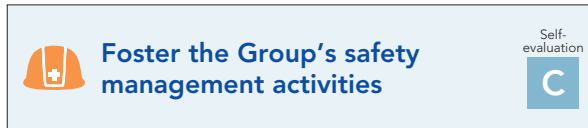
Women's Advancement Initiatives Result in Nadeshiko Brand Selection



Since 2011, Asahi Glass has continued to achieve its goal of recruiting women as 20% of its graduate recruits for career-track positions, and has implemented various initiatives to engage its female employees. In March 2013, the Tokyo Stock Exchange recognized these efforts by selecting Asahi Glass as a Nadeshiko Brand¹ company.

¹ Seventeen companies listed on the first section of the Tokyo Stock Exchange were selected after being evaluated on their promotion of women's participation and their return on equity (ROE).

Occupational Health and Safety



Reducing the Risk of Occupational Accidents

The AGC Group has instituted corrective measures and horizontal deployment for occupational accident prevention and, as a result, their total number has trended downward since 2005. However, the number of fatal accidents or major accidents requiring more than two weeks of leave has increased since the previous fiscal year, and in fiscal 2012, the AGC Group experienced five fatal accidents (two in Asia, three in Europe).

Taking this situation very seriously, the AGC Group is launching the cross-divisional Serious Accident Eradication Project.

In addition, beginning in January 2013, the entire AGC Group including Europe and North America has shared Accident Reports for major accidents requiring leave of more than two weeks. The subjects of this report include business partners as well.

In the future, the AGC Group will work hand-in-hand with its business partners to reduce the risk of occupational accidents and to strengthen safety awareness in every employee.

 Number of Occupational Accidents
CSR Information Supplement P. 9

Serious Accident Eradication Project Begins

In April 2012, the AGC Group launched the Serious Accident Eradication Project in order to eliminate serious work-related accidents including fatal accidents and those accidents requiring leave of two or more weeks, and environmental and industrial safety and security accidents that could result in injury or death and drastically affect the surrounding area. The project will adopt innovative measures in its approach, and on four occupational accident themes and four environmental and industrial safety and security themes (see page 33), the entire AGC Group is formulating preventative measures with regard to risks which are particularly high across the AGC Group.

The AGC Group formed several subcommittees to focus on four work-related accident themes (Forklifts, Palettes, Construction and Work with Equipment, and Caught and Involved), which will closely examine the separate causes and issues and promote separate countermeasures. In the future, the results of their separate activities will be shared within the AGC Group, and serious accidents will be eradicated.

Improving the Level of Safety Awareness

The AGC Group is implementing stratified education to raise safety awareness, focusing on Asia including Japan. For teaching materials, the Group has drafted and uses a textbook on human error prevention which categorizes unsafe actions and summarizes prevention methods in each category.

In fiscal 2012, these teaching materials were translated into multiple languages and shared with every Group location throughout Asia, Europe and America. In addition, 363 managers in Japan took part in Safety Patrol Training, which aims to develop observation of risk factors onsite at production facilities.

In the future, the AGC Group will continue to work to improve safety awareness with the idea that repeated education is important for maintaining high level safety awareness.

 Content published on the Web:
www.agc.com/english/csr/employee/

AGC Group Human Resource Management Targets

Respect for Human Rights and Sufficient Labor Practices

- Measures to Deal with Human Rights Issues and Harassment
- Surveys and Other Initiatives for Improving Employee Satisfaction (ES)
- AGC Group Awards System

Measures Related to Labor Practices

- Work-Life Balance
- Labor-Management Relations

Making the Most of Diversity

- Grooming Global Leaders to Manage Diverse Human Resources

Human Resources and Recruitment Initiatives

- Human Resource Management System
- Employing Global Management Staff

Employment and Recruitment of Women, the Elderly and People with Disabilities

- Further Employment and Promotion of Female Employees
- Employment of Retirees
- Employment of People with Disabilities

Employee Education

- Transfer of Skills from High Performers
- Promoting AGC Group Improvement Activities
- AGC Monozukuri Training Center
- Career Development Support

Occupational Health & Safety

- Basic Idea of Occupational Health & Safety
- Global Health and Safety Management System

Occupational Safety Measures




- Machinery Safety: Introducing Safe Manufacturing Machines
- Implementing Hazard Simulation Training

Occupational Health

- Health Management Policy
- Mental Health Care Initiative

The Environment

The AGC Group has positioned environmental protection as a top management priority, and is working to reduce the environmental impact of its operations. In addition, to contribute to the reduction of the environmental impact of society as a whole, it plans for 30% of its sales to be environment-related by the year 2020.

Plan Fiscal 2012 targets	Do Fiscal 2012 major initiative results	Check Self-evaluation
<p>1  Promoting risk reduction and preventive measures</p>	<ul style="list-style-type: none"> Participation in the integrated Environmental Management System (integrated EMS) was continuously expanded, with 128 locations (of 242 total manufacturing plants) participating worldwide as of the end of December 2012 	<p>A</p>
<p>2  Contributions through business initiatives regarding environmental and energy issues</p> <ul style="list-style-type: none"> Achieve an AGC Environmental Indicator level of 1.3 or less for greenhouse gases Facilitate energy conservation in manufacturing processes, etc. Promote the development of environmental products 	<ul style="list-style-type: none"> The AGC Environmental Indicator level for greenhouse gases was 1.6 Through the scope of Energy Conservation Assessment, the amount of utility-related energy consumption at the major plants in Japan was reduced by 8.5% as compared to 2011 levels The environment-related sales ratio was 17%, a one-point increase over the 2011 ratio 	<p>B¹</p>
<p>3  Promote Zero-landfill (waste) across the Group</p>	<ul style="list-style-type: none"> Forty percent of manufacturing plants achieved Zero-landfill (waste)², an 11-point increase as compared to 2011 	<p>B³</p>

Criteria for Self-evaluation **A:** Satisfactory level, in which the intended target has been achieved
B: Almost satisfactory level, in which a part of the intended target has not yet been achieved and some issues still remain
C: Unsatisfactory level, in which the intended target has not been achieved

¹ Since the AGC Environmental Indicator for greenhouse gases is showing a tendency to worsen.
² Zero-landfill is defined as recycling more than 99% of waste.
³ Since the recycling rate for the entire Group is 96.2%, and Zero-landfill has not yet been achieved globally.

AGC Glass Europe
AGC Glass Europe Acquires High Environmental Certification Ratings for Products and Buildings

Amidst growing interest in environmentally friendly products, buildings are now being certified as “green buildings” from the perspective of reducing waste and efficiently utilizing energy, water, and other resources. Buildings acquiring such certification are expected to increase in the future.

In 2012, AGC Glass Europe had its products assessed in cooperation with various certification organizations. In one case, its Stopray™ Vision 50T glass was certified by the Singapore Green Building Council as “Excellent.” AGC Glass Europe’s new headquarters building, into which it will move in 2013, is also expected to acquire BREEAM (Building Research Establishment Environmental Assessment Method) certification.”

Glass Company
Promoting Glass Cullet Collection and Recycling Overseas

Glass cullets (pulverized glass) can be reused as raw material to conserve resources. Since cullets require less energy to melt than silica sand (the raw material for glass), this conserves energy as well.

The AGC Group was the earliest member of the flat glass industry to begin foreign glass collection in Japan, and the Southeast Asian Group companies also reuse cullets. In addition, the Group is beginning foreign glass collection in Singapore. Group companies in Europe reuse approximately one million tons of cullets annually, the equivalent of saving 1,150,000 tons of raw materials and reducing CO₂ emissions by 300,000 tons.



A glass cullet sorting facility at the plant in Indonesia



Act

Fiscal 2013 targets

Promoting risk reduction and preventive measures

- Expand the number of locations participating in the integrated EMS
- Develop preventative measures for serious environmental and industrial safety and security accidents through the Serious Accident Eradication Project

Contributions through business initiatives regarding environmental and energy issues

- Promote activities to lower the level of the AGC Environmental Indicator for greenhouse gases to 1.3 or less
- Reduce the amount of energy consumption per unit area in major offices to 25% of 2011 values by 2015
- Achieve an environment-related sales ratio of 19% by 2015, and of 30% by 2020

Promote Zero-landfill (waste) across the Group

- By 2020, reduce the total amount of waste generated by basic unit⁴, and promote waste reduction initiatives in order to achieve Zero-landfill across the entire Group

Promotion of sustainable resource use **NEW**

ISO 26000 related actions and expectations (major issues)

Prevention of pollution

- Identify the impact of its decisions and activities on the environment
- Identify the sources of pollution and waste related to the activities
- Measure, record and report on its significant sources of pollution and reduction of pollution, water consumption, waste generation and energy consumption
- Prepare an environmental accident prevention program and an emergency plan involving workers, authorities, local communities and other relevant stakeholders

Climate change mitigation and adaptation

- Identify the sources of direct and indirect GHG emissions and define the scope of its responsibility
- Measure, record and report on its significant GHG emissions, preferably using methods defined in internationally agreed standards
- Implement measures to reduce the direct and indirect GHG emissions within its sphere of influence
- Realize energy savings by purchasing of energy efficient goods and development of energy efficient products

Prevention of pollution

- Implement measures aimed at preventing pollution and waste and properly manage unavoidable pollution and waste

Sustainable resource use

- Identify the sources of energy, water and other resources used
- Measure, record and report on its significant uses of energy, water and other resources
- Implement measures to reduce its use of energy, water and other resources

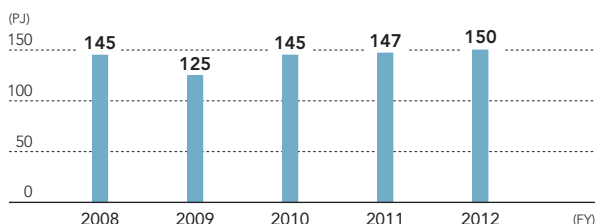
⁴ The amount of waste generated for the amount of resources invested

Key Performance Data

Total Energy Consumption

Due to increased energy use in the Asia region, the AGC Group's total energy consumption rose by 2% as compared to fiscal 2011. In the future, energy-saving activities regarding production processes will be implemented proactively, as set forth in "Technology Solutions for Environment and Energy" strategy in the mid-term management policy **Grow Beyond**.

Changes in Total Energy Consumption (AGC Group)



“The Importance of Preparing Disclosures from a Reader’s Perspective”

Dr. Kohei Urano

Doctor of Engineering, Professor Emeritus,
Yokohama National University

When disclosing environmental performance data, it is important to clearly communicate the company's intent. The reporting medium has changed from an environmental report to an integrated report, with detailed information incorporated into the website. With insufficient exposition, disclosed data tends



to stand on its own. Information may be communicated more accurately by adding considerations regarding environmental performance and, depending on the item, excluding short-term variables such as economic factors. As a result, not only will the company receive fair evaluations from those outside the company, but the information can be reflected in company initiatives during the following fiscal year.

 **Promoting risk reduction and preventive measures** Self-evaluation **A**

Integrated Environmental Management System Operation

The AGC Group has been building on and maintaining its integrated environmental management system (Integrated EMS) since 2003. The objectives of the system are as follows:

1. The Group aims to carry out environmental activities on an operational-wide basis rather than independently at each plant by integrating EMS in each of In-house Companies.
2. The Group aims to determine the effects of its entire operations on the environment in advance, extending from product design and assembly line organization through to manufacturing and transportation, to enable it to reduce the environmental impact of its products over the products' entire lifecycle. Accordingly, it includes the head office, sales departments and R&D divisions in addition to manufacturing plants in the Integrated EMS framework.

Under this system, each organization works to attain the goals and plans set in the Integrated EMS, and progress is evaluated by management through the integrated EMS review. Furthermore, each plant is encouraged to have external inspections based on international standards by the same certification organization, as a way to determine the level of environmental management activities in each country and region where the Group operates. Management makes use of the results of these evaluations and inspections when drafting policies and plans for the following fiscal year to ensure that environmental management activities continuously improve.

242 manufacturing plants



 Promotion structure of Integrated EMS and ISO 14001 certification status [CSR Information Supplement P. 10](#)

Promotion of Risk Reduction Activities at Each Plant

Using risk assessment methods, the AGC Group quantitatively evaluates risk factors hidden in business activities, reducing risk by incorporating countermeasures for high-risk items. In 2012, the Group began to use the Serious Accident Eradication Project (see page 30) to expose issues regarding molten glass leaks and explosions, which are a particularly large risk across the Group, and to propose countermeasures for future use. Looking forward, these efforts will be coordinated with business continuity plans (BCPs) and implemented across the entire group.

 **Contributions through business initiatives regarding environmental and energy issues** Self-evaluation **B**

The AGC Environmental Indicator to Determine Environmental Impact

The AGC Group formulated the AGC Environmental Indicator in 2006 to independently assess the environmental impact of its manufacturing activities (details shown below). By using this indicator, the Group can calculate how much the environment is affected in relation to improvements in its economic performance while making further improvements.

AGC Environmental Indicator Calculation Method

$$\text{AGC Environmental Indicator} = \frac{\text{Environmental impact ratio}}{\text{Economic contribution}} = \frac{\frac{\text{SOC}^1 \text{ emissions by AGC Group (Asahi Glass)}}{\text{SOC emissions in the world (Japan)}}}{\frac{\text{Sales of AGC Group (Asahi Glass)}}{\text{Global (Japan's) GDP}}}$$

¹ Substance of Concern

 [AGC Environmental Indicator Data, Material Balance CSR Information Supplement P. 11](#)

Energy Conservation and Reduction in Greenhouse Gas Emissions

Recognizing that it belongs to an energy-intensive industry, the AGC Group is promoting energy saving in areas such as within its production processes. In this regard, it has set a target value of 1.3 as measured by the AGC Environmental Indicator for greenhouse gas emissions. To meet this target, the Group is making use of fuel conversion and total oxygen combustion to improve production processes, installed cogeneration equipment and implemented energy conservation assessment. In fiscal 2012, due in great part to economic contribution, the denominator of the calculation method, the AGC Environmental Indicator was 1.6.

Energy conservation is also being promoted in the non-manufacturing divisions. For example, ZEB² conversion is moving forward on the head office building into which AGC Glass Europe (AGEU) will move in 2013, and in the field of logistics, every region is working on a modal shift, switching to transportation by rail or ship.

In 2012, the AGC Group assessed its CO₂ emissions, including Scope 3³ emissions. It was calculated that emissions generated through production (Scope 1 and 2) accounted for roughly 60% of the Group's total emissions. Going forward,

priority areas will be selected based on this assessment, and energy conservation measures will continue to be undertaken.

- 2 An abbreviation for Zero Energy Building. A building whose improved energy-saving performance or use of renewable energy compensates for its primary energy use, with the result that its annual primary energy consumption is zero or close to zero.
- 3 The amount of CO₂ emissions stemming from employee business trips and commutes, and goods acquisition and logistics in the supply chain

 Greenhouse Gas Emissions, Energy Consumption in Logistics per Unit
[CSR Information Supplement P. 12](#)

In Focus

Office Energy Conservation Goal Established Globally

The AGC Group manufactures and sells energy-saving architectural glass and other products that contribute to the reduction of greenhouse gas emissions over their entire lifecycle. To promote the spread of these products and to foster an environment in which all of society works together to conserve energy, the Group conducts educational activities through the WBCSD (World Business Council for Sustainable Development) (see page 23). In addition, the Group itself is leading the way by making its own offices energy-efficient, having established a goal of reducing the amount of energy used per unit of area in its major offices to 25% of fiscal 2011 levels by fiscal 2015.

Promote Zero-landfill (waste) across the Group




Waste Reduction

The AGC Group is promoting Zero-landfill (waste)⁴ globally, with a goal to achieve Group-wide Zero-landfill (waste) status by 2020. The Group carefully controls the amount of waste generated at sites and implements sorted collection. It is also making steady progress in recycling waste via the legal systems and recycling infrastructures of the countries and regions in which it operates. In fiscal 2012, the Group's overall recycling rate was 96.2%, and 40% of manufacturing plants had achieved Zero-landfill (waste) status.

- 4 Zero-landfill (waste) is defined as recycling more than 99% of waste.

Sites achieving Zero-landfill (waste) (manufacturing plants)



 Waste Sent to Landfill and the Recycling Rates
[CSR Information Supplement P. 14](#)



Promotion of sustainable resource use

NEW

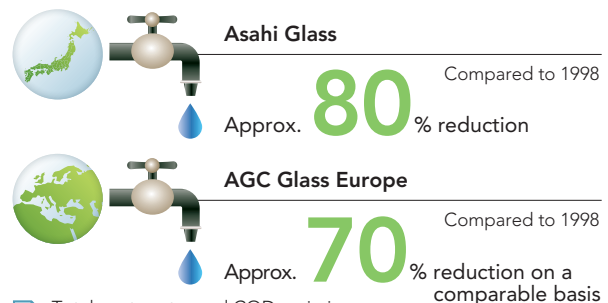
Effective Use of Water Resources and the Prevention of Water Pollution


In order to use its water resources more effectively, the AGC Group is promoting the recycling of cleaning and coolant water used in its manufacturing processes. For example, the latest technology for reducing the amount of water used is being introduced at the AGC Glass Brazil plant currently under construction. The total amount of wastewater in fiscal 2012 was reduced by approximately 80% at Asahi Glass, and, on a comparable basis, by approximately 70% (compared to fiscal 1998) at AGC Glass Europe (AGEU).

Also, by setting environmental indicators, such as COD⁵, that are specific to the characteristics of each site, the Group is working toward the prevention of water pollution.

- 5 Chemical Oxygen Demand is the amount of oxygen consumed to oxidize organic matter in water.

Total Amount of Wastewater



 Total wastewater and COD emissions
[CSR Information Supplement P. 13](#)



Content published on the Web:
www.agc.com/english/csr/env/

Environmental Management

- The AGC Group Basic Environmental Policy

Energy Conservation and Reduction in Greenhouse Gas Emissions

- CO₂ Emission Reduction Initiatives in Individual Countries and Regions
- Reducing Greenhouse Gases Besides CO₂
- Manufacturing Operations Cases
- Non-manufacturing Operations Cases

Life Cycle CO₂ Emissions

Chemical Substances Management

- Compliance with PRTR Act (AGC Group in Japan)
- Considerations for Safety during Chemical Transport
- Proper Management and Treatment of Asbestos
- Proper Management and Treatment of PCBs

Pollution Prevention

- Air Pollution Prevention
- Prevention of Soil and Groundwater Contamination

Biodiversity Conservation



Environment, Safety & Security Education

Environmental Accounting Environmental Products

Industrial Safety & Security

Fair Operating Practices

In addition to conducting business fairly, the AGC Group bases its operations on the principles of fair competition and on related applicable laws and ordinances. The Group is also working to promote social responsibility across the supply chain.

Plan Fiscal 2012 targets	Do Fiscal 2012 major initiative results
<p>1  To further strengthen training and audit for compliance with antitrust laws</p>	<ul style="list-style-type: none"> • About 5,900 employees participated in online training (e-learning) on antitrust laws, about 2,900 employees participated in in-person training • Conducted audits for compliance with the global guidelines in relation to compliance with the antitrust law at 46 Group companies and divisions
<p>2  Anti-corruption</p>	<p>Included in "Organizational Governance: Continue to promote compliance" (see page 21-22)</p>

AGC Group
Implementing Effective Training on Antitrust Laws

The AGC Group has been conducting antitrust law compliance training through various methods, such as online training (e-learning). In fiscal 2012, in-person training using real case examples of violations was conducted so that the participants could learn more effectively, with a focus on Japan and countries in Asia and Europe.



Antitrust law training



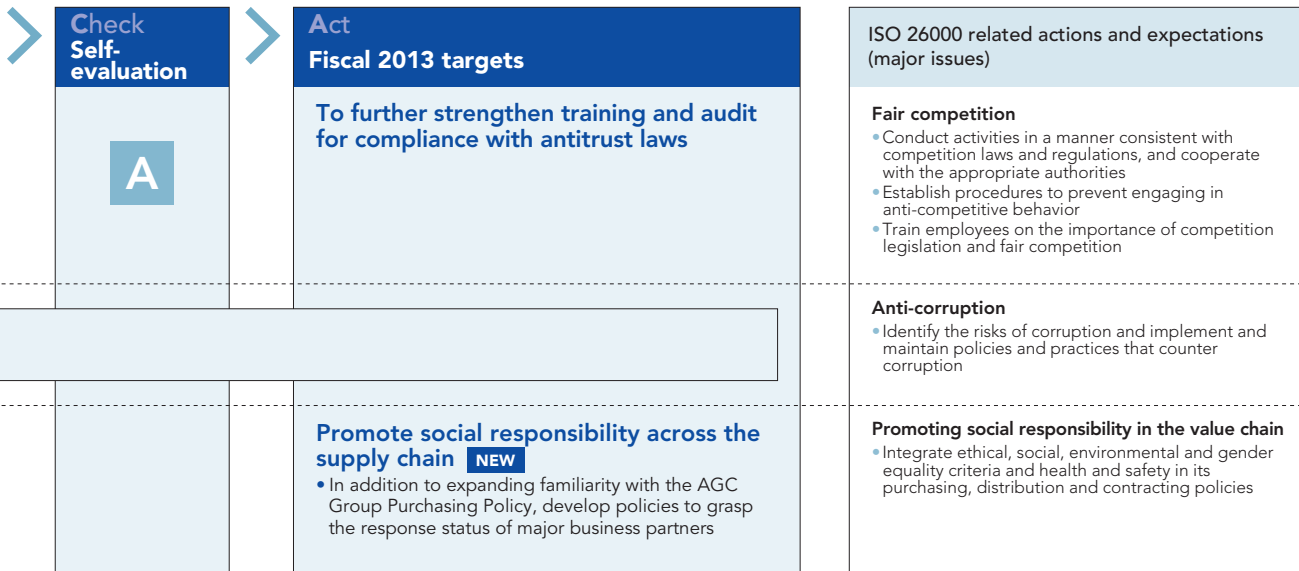
AGC Glass Europe
Promoting Innovations with Business Partners Using the InnoWiz Program

AGC Glass Europe (AGEU) is striving to maintain healthy business together with its suppliers by taking advantage of its InnoWiz program. The program provides a system for evaluating innovative ideas submitted by employees and implementing those that are feasible. Launched in 2008, the program allows anyone to suggest ideas and publish them on its platform.

Taking advantage of this system, in June 2012 AGEU strengthened its partnerships with business partners. AGEU has collected their cost-saving ideas together, then used the InnoWiz system for evaluating and processing the ideas. In addition, AGEU's technical staff work to make sure the ideas could work. With about 75% of the business partners agreeing to participate, AGEU and these partners have created a win-win situation by confronting the harsh business climate together as a team.

Suppliers who join the program receive the added benefit of becoming 'preferred' suppliers, allowing them to take part in a privileged 2-year supply program.





Criteria for Self-evaluation A: Satisfactory level, in which the intended target has been achieved
 B: Almost satisfactory level, in which a part of the intended target has not yet been achieved and some issues still remain
 C: Unsatisfactory level, in which the intended target has not been achieved

Key Performance Data

Fiscal 2012 Main Measures to Prevent Violations of Antitrust Laws

The AGC Group has not only set and put into effect global guidelines for compliance with antitrust laws but has also been conducting antitrust law compliance training with employees through efforts such as online training (e-learning) and in-person training. In addition, compliance with the guidelines is audited by each Group company and division.



Online Training (e-learning)

Approx. **5,900** participants



In-person Training

Approx. **2,900** participants



Onsite Audits

46 Group companies and divisions

“Committed to a Continuous Alignment of Supply Chain Goals Based on CSR and Customer Needs”

Jeff Schmitt
 General Manager, AGC Electronics America



In the US, over 83% of the top U.S. companies list supply chain issues as the number one challenge for 2013. As the General Manager of AGC Electronics America (AEUS), I’m responsible for our active supplier management process that educates, supports, and audits the critical suppliers in our supply chain.

Along with the usual challenges of logistics and risk mitigation, there is increased pressure on U.S. companies to ensure each vendor’s quality management system includes corporate social responsibility and business conduct codes.

There is also increased pressure with our multinational customers who are committed to participating in the Electronics Industry Citizenship Coalition (EICC), a coalition of the world’s leading electronics companies working to improve social, ethical, and environmental responsibility in the global supply chain. This initiative has many similarities with AGC’s CSR program.

AEUS has an infrastructure that has been developed over the years and has undergone repeated customer and supplier audits. AEUS is committed to a continuous alignment of our supply chain goals based on our responsibility under the AGC Group CSR and our customers’ requirements.


 **Improve training and auditing related to compliance with antitrust laws**

Self-evaluation **A**

Compliance with Antitrust Laws

In addition to the Group Code of Conduct, the AGC Group has formulated and implemented global guidelines for compliance with antitrust laws. Under the guidelines, the legitimacy of having a meeting with a competitor company must be thoroughly vetted first. Thereafter, employees are obligated to obtain the permission of superiors in advance of the meeting, and then report in writing the outcome of the meeting. Further, the Group is implementing an array of additional measures, such as antitrust training workshops in each region and organization, monitoring of group enrollment and participation status in trade associations, and auditing of guideline compliance.

 Global legal management system
CSR Information Supplement P. 16

 **Promote social responsibility across the supply chain** **NEW**

Promoting Supply Chain Management

As a corporate enterprise that contributes to a sustainable society, the AGC Group is implementing initiatives designed to address human rights and labor practices, as well as to solve various environmental and social issues across the entire supply chain, including efforts with suppliers. The Group has emphasized the importance of corporate social responsibility in its AGC Group Purchasing Policy, revised in 2009, and is encouraging suppliers to incorporate the policy and cooperate in its enforcement.

In 2012, the Group distributed AGC reports to 276 of its main suppliers, including those outside Japan, as a means to promote the AGC Group Purchasing Policy and request cooperation. The Group plans to survey these main suppliers in 2013 to confirm their progress in enforcing the policy.

 AGC Group Purchasing Policy (full text)
CSR Information Supplement P. 17

AGC Group Purchasing Policy (excerpt)

Items on which the cooperation of business partners is requested with regard to CSR promotion in the supply chain

1. Concentrate to supply products and services with good quality, considering Safety & Environment and Compliance to Laws & Regulations of each country.
2. Secure and proper managing of Proprietary information and Intellectual property.
3. Not to be engaged to forced labor or child labor and never tolerate infringements of human rights.
4. Make efforts to environment preservation and ensuring safety and security.
5. Maintain adequate level of occupational health and safety.

Initiatives Related to Conflict Minerals

Taking Conflict Minerals issue as an important CSR issue, the AGC Group improves transparency in the supply chain together with its business partners, ensures responsible mineral sourcing practices. By doing so, the AGC Group fulfill its social responsibility as a global enterprise.

With the passage of the financial reform bill in the United States in July 2010, targeted companies are now obligated to disclose use of designated minerals (so-called conflict minerals) mined in the Democratic Republic of the Congo and surrounding countries. The AGC Group confirmed at the end of fiscal 2012 that none of its operations used minerals mined in the designated areas in products listed on questionnaires sent by its customers.

 Content published on the Web:
www.agc.com/english/csr/fair/

Fair Operating Practices

- Global Legal Management System
- Legal Employment of Contract/Temporary Workers and Compliance with the Worker Dispatching Act
- Compliance with the Act against Delay in Payment of Subcontract Proceeds, Etc., to Subcontractors
- Prevention of Insider Trading
- Maintaining Information Security
- Protecting and Respecting Intellectual Property Rights

Promoting social responsibility across the supply chain

- Promoting Green Procurement
- Ombudsman System for Purchasing
- Promoting Occupational Health and Safety Education Among Business Partners

Quality Assurance

- Improving the Quality of Products and Services
- Complying with Legal and Regulatory Requirements for Products
- Compliance with the Consumer Products Safety Act
- Implementing Quality Training

Customer Satisfaction

- Pursuit of Customer Satisfaction (CS)
- Implementing Full-Scale CS Training

Community Involvement and Development

The AGC Group promotes activities that contribute to community development, working towards the resolution of social issues deriving from regional business development.

AGC Group Social Contribution Basic Policy

Guided by the AGC Group Social Contribution Basic Policy, the AGC Group carries out activities for helping communities around the world. The Group will promote activities meant to contribute to the resolution of social issues in fast-growing countries in which business activities are being developed.

AGC Group Social Contribution Basic Policy Priority Areas



Support for the Next Generation

We, as a creator of future value, support the development of children, who will carry the future, helping them to live out their dreams.



Harmony with Local Communities

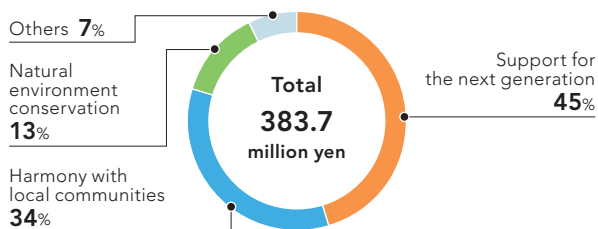
We, as a member of the communities in which we operate, contribute to their sustainable development.



Natural Environment Conservation

We, as a global enterprise, contribute to the solution of global environmental problems.

Expenditures in Fiscal 2012 for Social Contribution Activities



Note Due to rounding, the percentage sum does not amount to 100%.

Total Financial Expenditure on Social Contribution Activities

FY	Amount
2010	525 million yen
2011 ¹	814 million yen
2012	383.7 million yen

¹ Due to expenditures related to the Great East Japan Earthquake, the amount is comparatively greater than other years.

Social Contribution Basic Policy (full text), Detailed data regarding social contribution activity expenditures
[CSR Information Supplement P. 19](#)

In Focus Electronics Company

Continuously Applying the PDCA Cycle to Enhance Social Contribution Activities

The Electronics Company has established an independent policy for guiding its approach to the priority areas of the AGC Group Social Contribution Basic Policy. By making social contribution initiatives a specific mission for site managers, the Electronics Company intends to contribute to local communities and to make these plan meaningful activities meaningful for the Electronics Company as well.

Specifically, the In-house company holds an annual meeting for personnel in charge of social contribution, including those from the In-house company's overseas locations, at which they proactively share tips and ways of resolving issues discovered during the initiatives at each location. In addition, the In-house company has created an original performance index which it uses to find good examples and develop them at other locations. In fiscal 2013, there are plans to expand "The Science of Glass", a traveling class implemented by AGC Electronics with its own products at local elementary and middle schools, to other locations.

Electronics Company Social Contribution Basic Policy (established March 2010)

- Continuity for 10-20 years
- Subjects local communities do not realize
- Involving Volunteer activity
- Low-key efforts in a modest manner





A meeting of personnel in charge of social contribution activities

Fiscal 2012 Social Contribution Initiatives

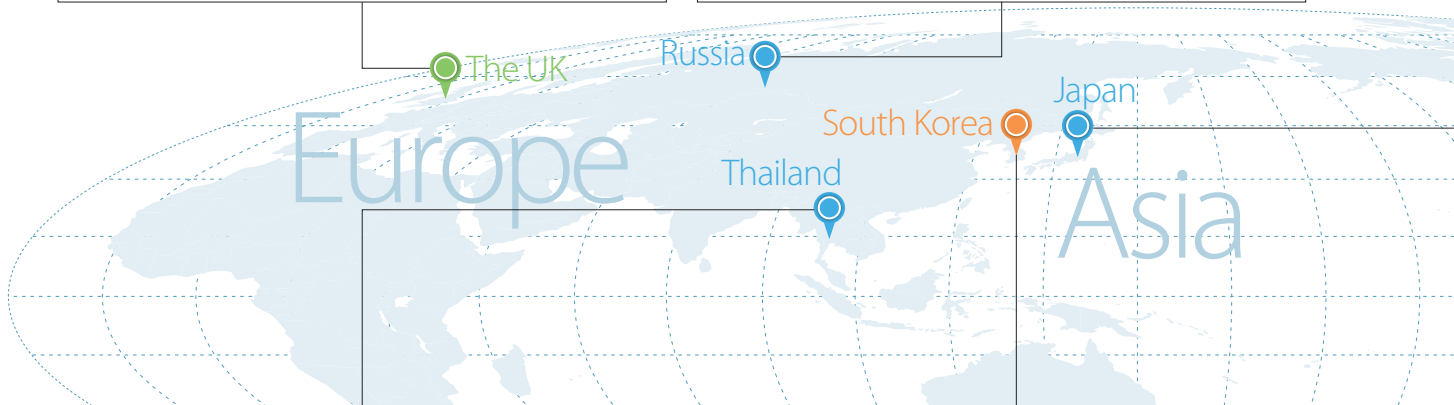


In the UK—
AGC Chemicals Europe

Environmental Workshops for Schoolchildren



In Russia—
AGC Bor Glassworks

AGC Bor Glassworks Engages Community in Local Cleanup



In Thailand—
AGC Flat Glass (Thailand) Public

AFT Supports Art Students with Homeland Development Program



In South Korea—
AGC Display Glass Ochang

Ongoing Volunteer Activities at Orphanages in South Korea



In Japan—

Glass Company

Safety Glass for Natural Disasters Donated to Mouka City, Tochigi Prefecture, Following Tornado Damage



South America

Brazil

In Brazil—

Asahi Glass

Contributing to the Resolution of Education and Poverty Issues to Facilitate Prosperous Coexistence with Brazilian Society



In Focus

One Research Group and One Individual Receive the Blue Planet Prize in 2012


The Blue Planet Prize is an international environmental award that, as of 2012, has been presented a total of 21 times. It is presented annually to two individuals or organizations that make significant contributions in scientific research or applications, and practices to solve global environmental problems.

In 2012, the Blue Planet Prize was awarded jointly to Professor William E. Rees of Canada and Dr. Mathis Wackernagel of Switzerland for their significant contribution to re-assessing the risk of overconsumption through their development of the Ecological Footprint, which indicates how much human beings depend on the natural environment. The prize was also awarded to Dr. Thomas E. Lovejoy of the United States for his considerable influence on environmental conservation worldwide as the first person to scientifically demonstrate the global environmental dangers of biodiversity loss caused by human activities.

The announcement of the prize-winners was made on June 17 at the United Nations Conference on Sustainable Development (Rio+20), held in Rio de Janeiro, Brazil.



Dr. Yoshihiro Hayashi, Chairman of the Selection Committee makes an explanation about the selection process, and the recipients with their families

 Content published on the Web

Social Contribution Activity Cases

-  Support for the Next Generation
www.agc.com/english/csr/social/activity_2.html
-  Harmony with Local Communities
www.agc.com/english/csr/social/activity_3.html
-  Natural Environment Conservation
www.agc.com/english/csr/social/activity_4.html

Corporate Governance

While strengthening corporate governance on an ongoing basis, the AGC Group clearly separates management oversight and execution with the goal of realizing highly efficient and transparent management.



Approach to Corporate Governance

As stated in its basic policy concerning corporate governance, the AGC Group clearly separates the functions of oversight and execution of management, aiming to strengthen the management oversight function.

By establishing a sound and effective system of corporate governance, the Group ensures the appropriate supervision of operations as it strives to realize highly efficient and transparent management.

Framework for Management Oversight

Board of Directors

Opinions and Evaluations of Outside Directors Improve the Transparency and Objectivity of the Board of Directors

The Board of Directors of Asahi Glass comprises seven directors, including three outside directors¹, and is tasked with approving the AGC Group's basic policy and monitoring the execution of its management.

Asahi Glass began employing outside directors in 2002 in an effort to enhance the management oversight function. The appointment of outside directors is carried out in accordance with requirements under the Companies Act of Japan as well as Asahi Glass' own selection criteria designed to ensure director independence (see page 42 for details). The three outside directors also fulfill the criteria for Independent Directors set forth by the securities listing regulations and enforcement rules for the securities listing regulations.

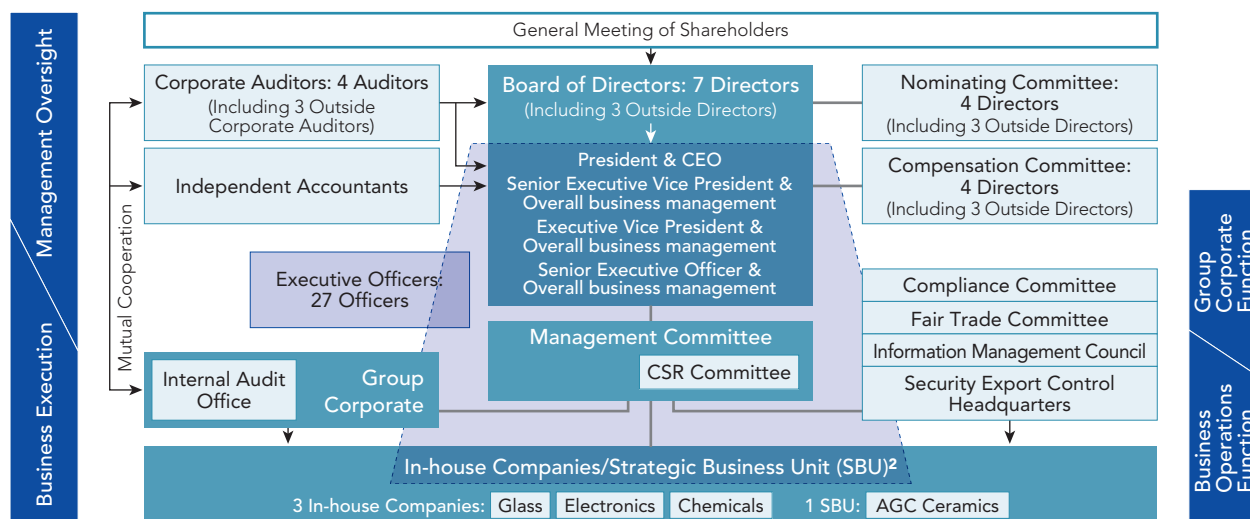
The term of office for outside directors is one year, during which they are expected to draw on their extensive experience in global corporate management to offer proposals in the Board of Directors concerning general management from an independent standpoint.

¹ As of March 28, 2013

Board of Directors Meetings in Fiscal 2012

- Meetings held: 13
- Attendance rate of each director in meetings: 100%

Overview of Corporate Governance Structure (as of March 28, 2013)



² An In-house Company is defined as a business unit with net sales exceeding 200 billion yen which conducts its business globally. At present, there are three In-house Companies: the Glass Company, the Electronics Company and the Chemicals Company. Business units smaller than this are defined as Strategic Business Units (SBUs).

Board of Corporate Auditors

Enhancing the Effectiveness of Audits with Accounting Auditors and the Internal Audit Organization while Auditing the Performance of Directors

Asahi Glass employs corporate auditors who audit the performance of directors by attending important meetings such as management committee sessions and holding regular meetings with representative directors. The corporate auditors also enhance the effectiveness of auditing by exchanging views and obtaining information concerning audit results and other matters in cooperation with accounting auditors and the Internal Audit Office. As of March 28, 2013, Asahi Glass employed four corporate auditors in total, of which three were outside auditors. All three fulfill the requirements of the Companies Act, as well as standards for independence set forth by our company (see list at right). The outside auditors also fulfill the criteria for Independent Auditors set forth by securities listing regulations and the enforcement rules for the securities listing regulations.

Framework for Enhancing the Management Oversight Function

Early Establishment of a Non-Statutory Nominating and Compensation Committees in 2003

Asahi Glass established its Nominating and Compensation Committees in 2003 as voluntary advisory committees of the Board of Directors.

Committee Activities in Fiscal 2012

Committee and members	Duties	Number of meetings held
Nominating Committee: 4 Directors (of which 3 are outside directors)	Deliberate on candidates for director and executive officer positions, and make recommendations to the Board of Directors	5 times
Compensation Committee: 4 Directors (of which 3 are outside directors)	Deliberate on the compensation system for directors and executive officers, directors' compensation limits and bonuses to be reported to the general shareholders meeting, and the amount of compensation for executive officers	6 times

Standards for Independence of Outside Officers

Asahi Glass has set the following standards to ensure the independence of outside directors and outside corporate auditors.

Standards for Independence of Outside Officers (Summary)

- An outside officer shall not be a business executing person from a company competing in the same industries as the AGC Group, a company which has the AGC Group as a major business counterparty or a major business counterparty of the AGC Group (in the past three years), or a major shareholder of Asahi Glass.
- An outside officer will not have received a significant sum of money (in the past three years) from the AGC Group besides compensation designated for their respective position.
- An outside officer shall not have been an employee of an auditing firm that has conducted audits on the AGC Group in the past three years.
- The absence of serious conflicts of interest between the Company and an outside officer, or any matter between the Company and an outside officer that may damage his or her independence.

Note: Please refer to the Corporate Governance Report (submitted to TSE) for the full list of standards.

Support System for Outside Officers

Company Organizations Support Effective Supervision and Auditing

To enable outside directors to effectively oversee operations based on adequate information about the Company, the Office of the President, which serves as the Secretariat of the Board of Directors, notifies them about Board of Directors meetings, distributes related materials beforehand, and provides full explanations of agenda items for the meetings in advance.

Likewise, to enable outside corporate auditors to more effectively perform audits, the Secretariat of the Board of Corporate Auditors holds Board of Corporate Auditors meetings, and assists them in coordinating meetings with representative directors and accounting auditors.

Framework for Management Execution

Executive Officers Perform their Duties Promptly and Appropriately while Each In-House Company Flexibly Manages the Business

At Asahi Glass, the management execution function is the responsibility of executive officers below the president & CEO. As an advisory committee to the president & CEO, Asahi Glass establishes the Management Committees and discusses business management monitoring and decisions regarding management execution. A system of In-house Companies (quasi-subidiaries within the Group) has been introduced and a global consolidated management system is adopted with regard to business execution. Much of the responsibility and authority for business execution has been delegated to the In-house Companies and the Strategic Business Unit.

Compensation System

Basic Philosophy on Compensation System

Establishing an Objective and Highly Transparent Compensation System

In its Compensation Principles, Asahi Glass sets out its basic stances and philosophies on overall compensation for officers as follows.

- The compensation system shall be one that enables the Company to attract, secure and reward diverse and talented personnel, in order to establish and expand the Company's edge over its peers.
- The compensation system shall be one that promotes continued improvement of corporate value, and in this way allows shareholders and management to share gains
- The compensation system shall be one that gives motivations to achieve performance goals relating to management strategies for the AGC Group's continuous development.
- The decision-making process of determining compensation shall be objective and highly transparent.

Composition of Compensation

Outside Directors Receive Fixed Compensation while Inside Directors Receive both Fixed and Performance-Linked Compensation

Under the Company's compensation system, outside directors and corporate auditors receive fixed compensation in the form of monthly compensation. Directors who serve as executive officers receive monthly compensation as well as performance-linked compensation in the form of bonuses and stock compensation-type stock options.

The amount of the Bonuses, which is aimed at motivating recipients to achieve their single-fiscal-year business

Composition of Compensation for Directors and Corporate Auditors

	Type of compensation		Eligible persons
Directors	Fixed compensation	Monthly compensation	All directors
	Performance-linked compensation	Performance-linked bonuses	Directors who also serve as executive officers
		Stock compensation-type stock options	Directors excluding outside directors
Corporate auditors	Fixed compensation	Monthly compensation	All corporate auditors

results goals, varies depending on consolidated business results for a single fiscal year. The Stock Compensation-Type Stock Options are intended to allow recipients to share benefits and risks associated with stock price fluctuations with our shareholders, and enhance their motivation and morale so as to raise business results and corporate value on a medium to long term basis.

Compensation Determination Method

Ensuring the Objectivity and Transparency of the Company's Compensation Decision-Making Process

The Compensation Committee deliberates on matters such as the compensation system and level for directors and executive officers based on the Compensation Principles, makes proposals regarding them to the Board of Directors, and verifies the results of compensation payments in order to increase the objectivity and transparency of the compensation determination process.

Compensation to Directors and Corporate Auditors in Fiscal 2012

	Number of recipients	Total payment (millions of yen)
All directors	7	417
Outside directors only	3	46
All corporate auditors	4	93
Outside corporate auditors only	3	57

Internal Control

Implementing Online Training for Employees to Strengthen Internal Control

In response to the establishment of the Companies Act, Asahi Glass voted on its corporate policy over internal control at the Board of Directors meeting held in May 2006. The aim was to review and ensure the appropriateness of its business operation systems, including the compliance system.

The Company adopted an internal control reporting system in compliance with Japan's Financial Instruments and Exchange Act, and then established the AGC Group Internal Control over Financial Reporting Implementation Regulations. Based on these regulations, the Group maintains, operates and evaluates internal controls for financial reporting.

An external auditor evaluated the Group's internal control systems in fiscal 2011 and 2012, and confirmed that the systems were effective and compliant. In fiscal 2012, an online training program for employees is planned with the aim of strengthening internal control functions.

Internal Audits / Risk Management



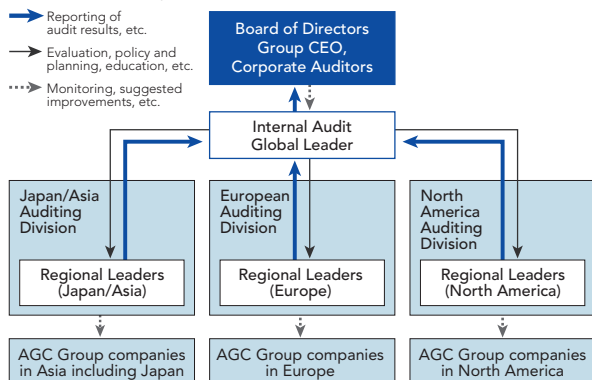
Established an internal audit framework centered on the internal audit global leader and determined major risk factors which are reported and discussed on a regular basis

Internal Audits

Establishment of a Framework which the Internal Audit Global Leader Oversees Regional Leaders

In order to maintain the independence of internal auditing divisions and implement effective and efficient auditing, the AGC Group has set up a framework that assigns the internal audit global leader under the supervision of the Group CEO to oversee the regional leaders of Asia including Japan, Europe and North America. Under this system, each regional auditing division monitors their respective organization and works to make improvements. The global leader in charge of these divisions promptly reports on results to the Group CEO, and periodically submits reports to the Board of Corporate Auditors and the Board of Directors.

Internal Audit System Structure



Examples of Risks Managed by the AGC Group as a whole include Those Related to the Following:

- Natural disasters such as earthquakes
- Environmental regulations
- Market conditions with regard to product demand
- Occupational accidents
- Product liability
- Procurement of resources
- Overseas Business development

Business Continuity Management (BCM) Structure

AGC Group BCP Development Guidelines Published for Use in Establishing Risk-Related BCPs

The AGC Group began formulating its business continuity plan (BCP) in fiscal 2008 to prepare for a large-scale accident or disaster. Additionally, in March 2011, the Group issued the AGC Group Business Continuity Plan (BCP) Development Guideline as guidelines for use by divisions and sites when formulating BCPs for each type of risk. BCPs are reliably implemented and assessed based on the business continuity management process (BCM) for continuously maintaining and improving BCPs.

Measures for Natural Disasters

AGC Group Basic Principle to Cope with Natural Disasters Established to Promote Disaster Preparedness at High-Risk Locations

In March 2011, the Group established the AGC Group Basic Principle to Cope with Natural Disasters to prepare for large-scale natural disasters that might take place in the regions in which the Group operates, and as a means to promote integrated and comprehensive countermeasures at sites in regions around the world where disaster risks are particularly high.

In response to the Great East Japan Earthquake that occurred in March 2011, the Group revised these basic principles in December, 2011 and established Rules for the AGC Group Emergency Headquarters (Natural Disasters Version). Furthermore, simulated drills for carrying out a business continuity plan were jointly conducted by business sites in Japan based on multiple scenarios, including a fiscal 2011 simulation of damage to the head office and other sites caused by three major successive earthquakes occurring in the country's Tokai, Tonankai and Nankai regions, and in fiscal 2012 of an earthquake occurring directly under the Tokyo metropolitan area on a holiday.

Risk Management

Fundamental Approach

Risk Response Action Plan and PDCA Cycle

The AGC Group is united in its efforts regarding risk management. Founded on the corporate policy over internal control determined by the Board of Directors, the AGC Group defines its important risk factors, assesses their management status and reports the results to the Management Committee and the Board of Directors for periodic discussion. Divisions with jurisdiction over specific risk formulate action plans for risk management and develop a Plan, Do, Check and Act (PDCA) cycle in order to continuously improve and reform the level of risk management.

Financial and Non-Financial Highlights

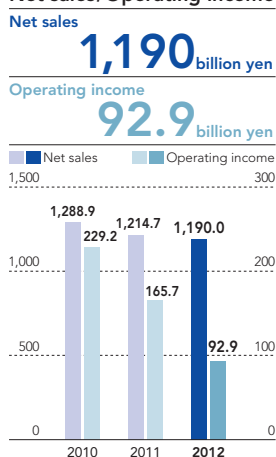
Organizations Covered in the Report: Asahi Glass Co., Ltd. and its consolidated subsidiaries
Reporting Period: Consolidated fiscal year ending December 31

	2010	2011	2012	Increase (Decrease)
Income statement and balance sheet data (million yen)				
Net sales ¹	¥ 1,288,947	¥ 1,214,672	¥ 1,189,956	¥ -24,716
Operating income	229,205	165,663	92,945	-72,718
Net income	123,184	95,290	43,790	-51,500
Total assets	1,764,038	1,691,556	1,899,373	207,817
Total net assets	849,815	850,460	996,949	146,489
Sales by business segment (million yen)				
Glass	¥ 570,921	¥ 554,423	¥ 564,605	¥ 10,182
Electronics	435,301	386,512	344,102	-42,410
Chemicals	260,078	248,573	257,267	8,694
Ceramics/Other	77,305	83,915	87,005	3,090
Sales ratio by business segment (%)¹				
Glass	44	46	47	—
Electronics	34	32	29	—
Chemicals	20	20	21	—
Ceramics/Other	2	2	3	—
Other financial data				
Research and development costs (million yen)	¥ 39,399	¥ 46,442	¥ 48,360	¥ 1,918
Capital expenditures (million yen)	117,439	152,705	155,334	2,629
Return on equity (ROE) (%)	15.8	11.8	5.0	—
Return on assets (ROA) (%) ²	12.9	9.6	5.2	—

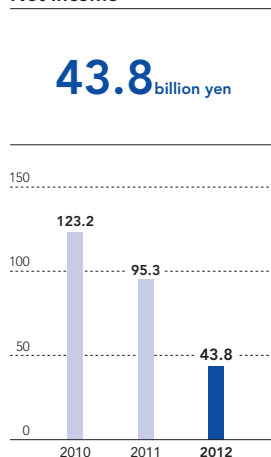
¹ Sales ratios and sales by business segment is calculated using amount of net sales to external customers.

² Based on operating income

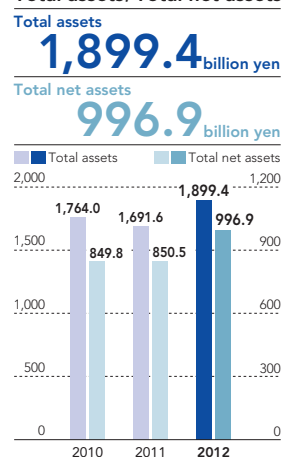
Net sales/Operating income



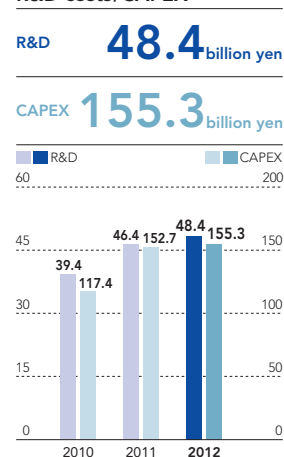
Net income



Total assets/Total net assets



R&D costs/CAPEX

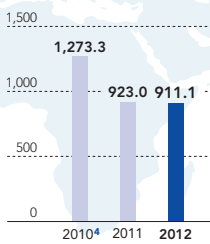


	2010	2011	2012	Increase (Decrease)
Non-financial data				
Number of employees	50,399	50,957	49,961	-996
Total energy consumption (PJ)	145	147	150	3
Greenhouse gas emissions (1,000 tons-CO ₂)	9,220	9,860	10,050	190
Ratio of sales in emerging markets (%)	—	19	20	—
Ratio of environment-related sales (%)	—	16	17	—
Ratio of sales of new products (%)	—	8	11	—

Data by region Japan/Asia³

Net sales

911.1 billion yen



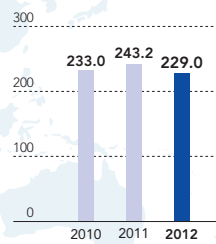
Number of employees and employees ratio



Europe

Net sales

229.0 billion yen



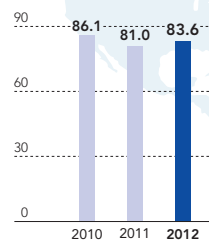
Number of employees and employees ratio



North America

Net sales

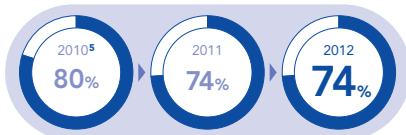
83.6 billion yen



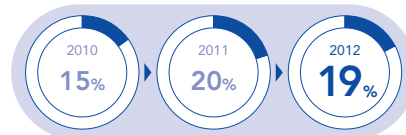
Number of employees and employees ratio



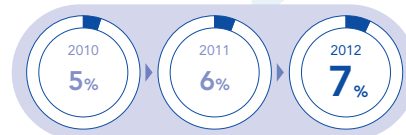
Sales ratio



Sales ratio



Sales ratio

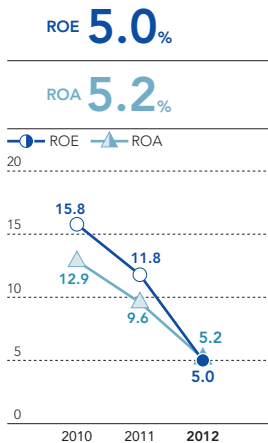


³ From fiscal year 2011, the figure includes both Japan and Asia.

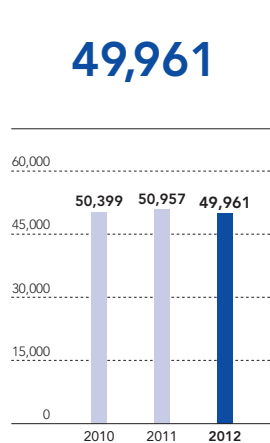
⁴ In fiscal 2010, net sales were 777.6 billion yen in Japan and 495.7 billion yen in Asia.

⁵ In fiscal 2010, the sales ratio was 49% for Japan and 31% for Asia.

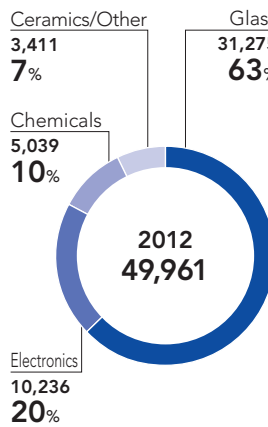
ROE/ROA



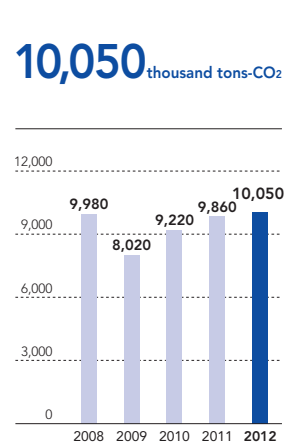
Number of employees



Employees and employee ratio by business segment



Greenhouse gas emissions



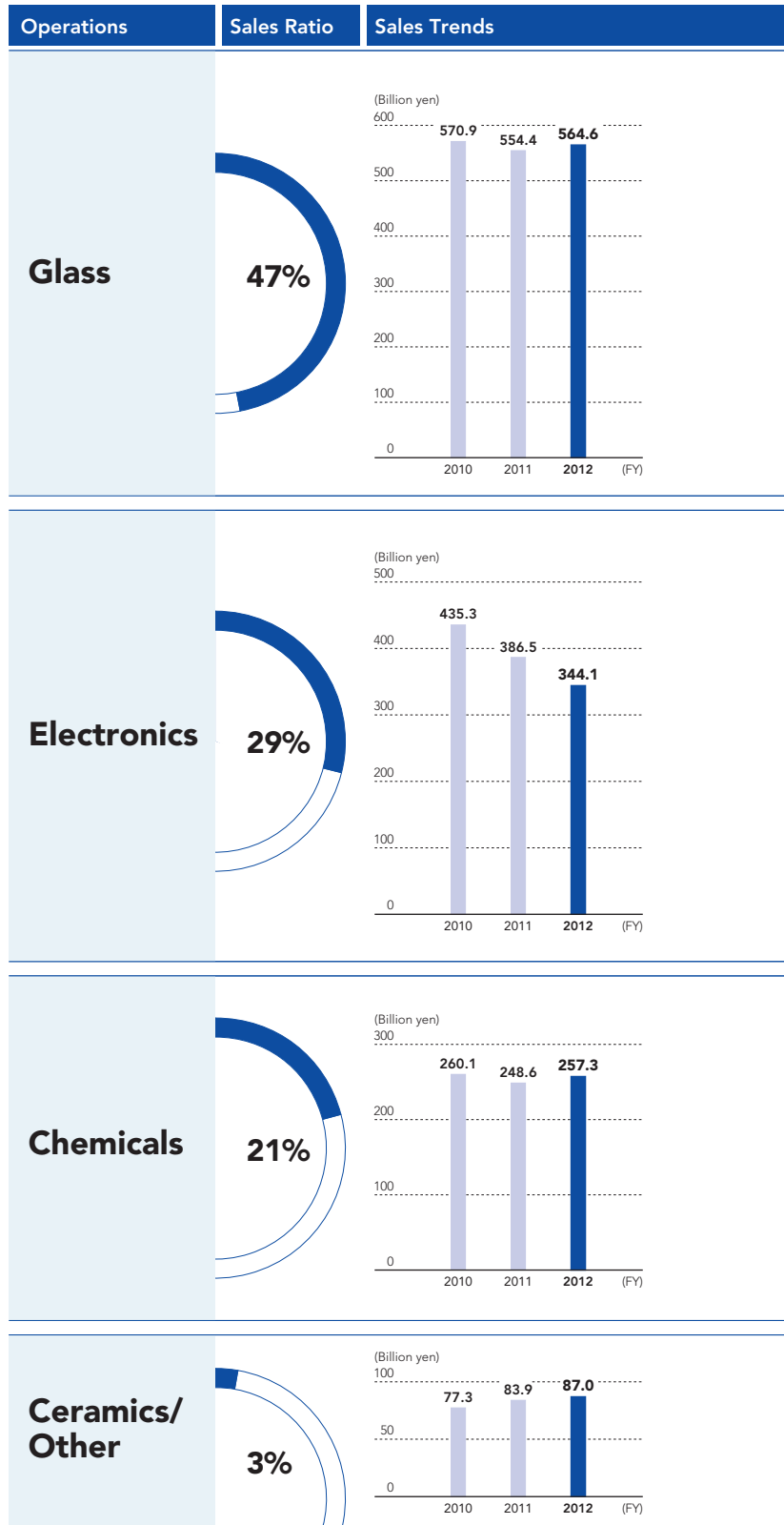
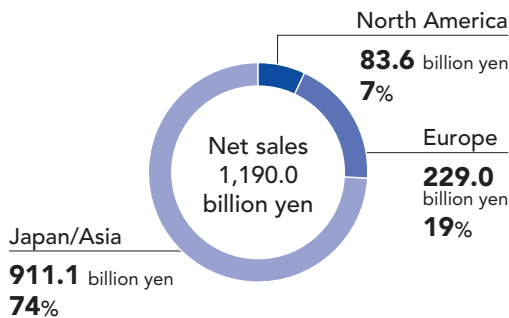
Overview of the AGC Group

Corporate Data

As of the end of December 2012

Name	Asahi Glass Co., Ltd. (Global brand: AGC)
Head Office	1-5-1, Marunouchi, Chiyoda-ku, Tokyo 100-8405 JAPAN
Founded	September 8, 1907
Incorporated	June 1, 1950
Capital	90,873 million yen
Outstanding stock	1,186,705,905 shares
Employees	49,961 (consolidated), 6,374 (non-consolidated)
Consolidated Group companies	202 (165 overseas)

Sales and Sales Ratio by Region



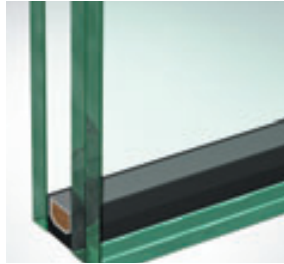
Main Products/Services

- **Flat glass**

Float glass
Low-emissivity (Low-E) glass
Double glazing glass for solar control/heat-insulation
Safety glass
Decorative glass
Glass for solar power systems

- **Automotive glass**

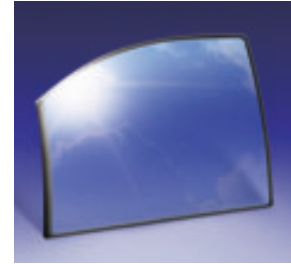
Tempered automotive glass
Laminated automotive glass



Low emissivity (Low-E) double glazing unit



"Stopray™ Ultra-50 on Clearvision"



"UV Verre Premium™" for automotive glass

- **Display glass**

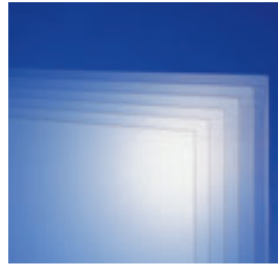
Glass substrates for LCD-TFTs
Glass substrates for PDPs
Specialty glass for display applications
Glass substrates for display devices
Display-related materials

- **Electronics materials and parts**

CMP slurry
Glass frit and paste
Aspherical glass lenses (micro glass)
Carboglass™
Synthetic quartz glass
Optical thin-film products



"Dragontrail™" specialty glass for chemical strengthening



Glass substrates for TFT-LCDs



Synthetic quartz glass

- **Chlor-alkali & urethane**

Raw materials for vinyl chloride monomer and polymer
Caustic soda
Urethane materials

- **Fluorochemicals & specialty chemicals**

Fluoropolymers/films
Fluoronated water and oil repellents
Pharmaceutical and agrochemical intermediates and active ingredients
Iodine-related products
Battery materials



"Fluon® ETFE Film"
Fluoropolymer film



"Lumiflon™" highly weather-resistant fluoropolymer resin for coating



Tafluprost¹ pharmaceutical and agrochemical intermediates and active ingredients

- **Ceramics**

Various refractory materials
Fine ceramics
Sputtering targets

- **Logistics/Engineering**



Fused cast refractory bricks for glass furnace crowns



"THERMOTECT WALL™" high thermal insulation furnace walls



Ceramic sputtering targets



Cement rotary kiln

¹ Tafluprost is glaucoma treatment co-developed with Santen Pharmaceutical Co., Ltd.

Global Network

The AGC Group is expanding its global business by leveraging its extensive networks of companies operating in some 30 countries and regions in Japan, Asia, Europe and America.

AGC Asahi Glass Co., Ltd.

Japan

- AGC Glass Products Co., Ltd
- AGC Glass Kenzai Co., Ltd.
- AGC Okinawa Glass Kenzai Co., Ltd.
- AGC Amenitech Co., Ltd.
- Ryugasaki Glass Co., Ltd.
- AGC Fabritech Co., Ltd.
- AGC Automotive AMC Co., Ltd.
- AGC Automotive Window Systems Co., Ltd.
- Autoglass Co., Ltd.
- AGC Display Glass Yonezawa Co., Ltd.
- AGC Electronics Co., Ltd.
- AGC Techno Glass Co., Ltd.
- AGC Micro Glass Co., Ltd.
- AGC Polycarbonate Co., Ltd.
- Optical Coatings Japan
- ▲ Ise Chemicals Corporation
- ▲ Keiyo Monomer Co., Ltd.
- ▲ AGC Si-Tech Co., Ltd.
- ▲ AGC Engineering Co., Ltd.
- ▲ AGC Seimi Chemical Co., Ltd.
- ▲ AGC Coat-Tech Co., Ltd.
- ▲ AGC Polymer Material Co., Ltd.
- ▲ AGC Green-Tech Co., Ltd.
- ▲ AGC Wakasa Chemicals Co., Ltd.
- ▲ AGC Matex Co., Ltd.
- ▲ AGC Filtech Co., Ltd.
- ▲ Hokkaido Soda Co., Ltd.
- ▲ Kashima Chemical Co., Ltd.
- ◆ AGC Ceramics Co., Ltd.
- ◆ AGC Plibrico Co., Ltd.
- AGC Research Institute, Inc.
- AGC Insurance Management Co., Ltd.
- AGC Finance Co., Ltd.
- AGC Logistics Co., Ltd.
- AGC Technology Solutions Co., Ltd.
- Tokai Kogyo Co., Ltd.

Asia

Thailand

- AGC Flat Glass (Thailand) Public Co., Ltd.
- AGC Automotive (Thailand) Co., Ltd.
- AGC Electronics (Thailand) Co., Ltd.
- AGC Techno Glass (Thailand) Co., Ltd.
- AGC Micro Glass (Thailand) Co., Ltd.
- ▲ AGC Chemicals (Thailand) Co., Ltd.
- ▲ AGC Matex (Thailand) Co., Ltd.
- AGC Technology Solutions (Thailand) Co., Ltd.

Indonesia

- PT Asahimas Flat Glass Tbk
- PT IWAKI Glass Indonesia
- ▲ PT Asahimas Chemical

Singapore

- AGC Flat Glass Asia Pacific Pte., Ltd.
- AGC Electronics Singapore Pte. Ltd.
- ▲ AGC Chemicals Asia Pacific Pte. Ltd.
- AGC Singapore Services Pte. Ltd.

Philippines

- AGC Flat Glass Philippines Inc.
- AGC Automotive Philippines Inc.
- AGC Philippine Ecozone Management Corporation

Taiwan

- AGC Display Glass Taiwan Co., Ltd.
- AGC Electronics Taiwan Co., Ltd.

China

- AGC Flat Glass (Dalian) Co., Ltd.
- AGC Flat Glass (Suzhou) Co., Ltd.
- AGC Flat Glass Protech (Shenzhen) Co., Ltd.
- AGC Flat Glass (Hong Kong) Co., Ltd.
- AGC Automotive China Co., Ltd.
- AGC Automotive Foshan Co., Ltd.
- AGC Glass Substrate (Hong Kong) Co., Ltd.
- AGC Glass Substrate (Guangdong) Co., Ltd.
- AGC Display Glass (Kunshan) Co., Ltd.
- AGC Display Glass (Shenzhen) Co., Ltd.
- ▲ AGC Chemicals Trading (Shanghai) Co., Ltd.
- ▲ Seimi Tongda Lithium Energy Co., Ltd.
- ◆ Zibo Asahi Glass Alumina Materials Co., Ltd.
- ◆ Yixing AGC Ceramics Co., Ltd.
- ◆ Plibrico (Dalian) Industries Co., Ltd.
- AGC(China)Holdings Co., Ltd.
- AGC Shanghai Co., Ltd.
- AGC Technology Solutions (Kunshan) Co., LTD.

Korea

- Hanwook Techno Glass Co., Ltd.
- Asahi Glass Fine Techno Korea Co., Ltd.
- Asahi PD Glass Korea Co., Ltd.
- AGC Display Glass Ochang Co., Ltd.

North America

U.S.A

- AGC Flat Glass North America, Inc.
- AGC Soda Corporation
- AGC Automotive Americas Co.
- AGC Automotive Americas R&D, Inc.
- AGC Electronics America, Inc.
- ▲ AGC Chemicals Americas, Inc.
- ▲ Woodward Iodine Corporation
- AGC America, Inc.
- AGC Capital, Inc.

Canada

- AGC Flat Glass North America, Ltd.
- AGC Automotive Canada, Inc.

Mexico

- AGC Automotive Glass Mexico S.A. de C.V.

South America

Brazil

- AGC Glass Brazil, Inc.

Europe

Belgium

- AGC Glass Europe S.A.
- AGC Glass Europe Sales S.A.
- AGC Automotive Europe S.A.
- AGC Automotive Belgium S.A.
- AGC Europe S.A.

Netherland

- AGC Flat Glass Nederland B.V.

U.K.

- AGC Glass UK Ltd.
- ▲ AGC Chemicals Europe, Ltd.

Czech Republic

- AGC Flat Glass Czech a.s., clen AGC Group
- AGC Automotive Czech a.s.

Russia

- OJSC AGC Bor Glassworks
- AGC Flat Glass Klin LLC

France

- AGC France SAS

Italy

- AGC Flat Glass Italia S.r.l.
- AGC Automotive Italia S.r.l.

Spain

- AGC Flat Glass Iberica S.A.

Germany

- AGC Glass Germany GmbH
- Interpane Glas Industrie AG

Hungary

- AGC Glass Hungary Ltd.

Poland

- AGC Gdansk Sp. z o.o.

Turkey

- AGC Otomotiv Adapazari Üretim, Sanayi Ve Ticaret Anonim Sirketi

- Glass
- Electronics
- ▲ Chemicals
- ◆ Ceramics
- Others

Note: As of December 2012.

News

In Brazil

AGC Asahi Glass Became a 2014 FIFA World Cup™ Branded Licensee

Asahi Glass has signed an agreement to become a branded licensee of the 2014 FIFA World Cup™. Through this license agreement, the Company became the first B-to-B company to market the "Official Licensed Glass Roof of the 2014 FIFA World Cup™ Player Benches."



In the USA

Asahi Glass Invests in Triton Microtechnologies to Promote the Development of Cutting-Edge Via-Fill Technologies

Asahi Glass has invested a total of 2.1 million dollars in Triton Microtechnologies, Inc., a U.S.-based company. Asahi Glass intends to combine its ultra-thin glass-related technologies with the company's via-fill technologies in an effort to accelerate the development of next-generation semiconductors that employ glass.



Glass interposer substrates

In China

A Sales Office for Chemical Products Established in Guangzhou, China

Asahi Glass established and commenced operations of a sales office of AGC Chemicals Trading (Shanghai) Co., Ltd., in the city of Guangzhou, Guangdong Province, to provide services tailored to the Chinese market, where demand is expected to grow. The branch will accelerate business expansion for functional chemicals, particularly fluorinated products.

Main products:

- Fluorinated resin
- Fluorinated elastomer
- Fluoropolymer films
- Fluorinated water and oil repellents
- Fluoropolymer resin for coatings
- Fluorinated solvents Etc.

In Germany

Establishing a Strategic Alliance with a German Glass Manufacturer in the Glass Business

AGC Glass Europe and Interpane Glas Industrie AG have entered an alliance with a view to expand their glass manufacturing and processing facilities, as well as mutually enhance each other's product lineups. Through the alliance, the AGC Group intends to increase its presence in the German flat glass market and improve its glass coating techniques.



Seingbouse plant (France)

Board of Directors, Corporate Auditors and Executive Officers

Board of Directors



Kazuhiko Ishimura
Representative Director



Yuji Nishimi
Representative Director



Yoshiaki Tamura
Representative Director



Takashi Fujino
Director



Hajime Sawabe
Director (Outside)

Appointed in March 2008
Member of the Nominating and
Compensation Committees
Advisor to TDK Corporation
Outside Director of Teijin Limited
Outside Corporate Auditor of
Nikkei Inc.



Masahiro Sakane
Director (Outside)

Appointed in March 2011
Member of the Nominating and
Compensation Committees
Director and Councilor of
Komatsu Ltd.
Outside Director of
Tokyo Electron Limited
Outside Director of
Nomura Holdings, Inc.
Outside Director of
Nomura Securities Co., Ltd.



Hiroshi Kimura
Director (Outside)

Appointed in March 2013
Member of the Nominating and
Compensation Committees
Chairman of the Board of
Japan Tobacco Inc.

Executive Officers

President & CEO
Kazuhiko Ishimura
CEO

**Senior Executive
Vice President**

Yuji Nishimi
Overall business management
(AGC Group Improvement
Activities, electronics business
and business development)

**Executive Vice
Presidents**

Kei Yonamoto
Brazil Global Project
Team Leader

Yoshiaki Tamura
Overall business management
(Technology); GM of Technology
General Division; Deputy leader
of AGC Group Improvement
Activities

**Senior Executive
Officers**

Marehisa Ishiko

President of Glass Company

Jean-François Heris

Regional President of Europe,
Glass Company; President &
CEO of AGC Glass Europe

Takashi Fujino

Overall business management
(Finance); GM of Office of the
President

Yasumasa Nakao

Vice President, Technology,
Glass Company

Takuya Shimamura

President of Electronics
Company

Executive Officers

Tadayuki Oi

GM of Production Technology
Center, Technology General
Division

Shinichi Kawakami

GM of Human Resources &
Administration Office

Tetsuo Tatsuno

GM of Finance & Control Office

Eisuke Yanagisawa

GM of Legal

Tokio Matsuo

GM of CSR Office

Akinobu Shimao

President of AGC Ceramics
Co., Ltd.

Tomoya Takigawa

GM of Research Center,
Technology General Division

Takashi Shimbo

Chief Representative of AGC
Group for China

Shinji Miyaji

Regional President of North
America, Glass Company

Kimikazu Ichikawa

Regional President of Japan/Asia
Pacific, Glass Company

Yoshinori Kobayashi

GM of Electronics General Div.,
Electronics Company

Kazuyoshi Watanabe

GM of Display Glass General Div.,
Electronics Company

Yoshinori Hirai

GM of Business Development
Office

Kihachiro Okamoto

Vice President, Automotive,
Glass Company

Shigekuni Inoue

GM of Electronic Glass General
Div., Electronics Company

Hiroyuki Watanabe

GM of Technology Planning
Office, Technology General
Division

Masao Nemoto

President of Chemicals Company

Takayasu Ide

GM of Technology Management
General Div., Chemicals
Company

Corporate Auditors

Shukichi Umemoto

Izumi Tamai (Outside)

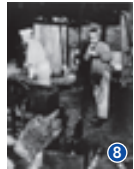
Shigeru Hikuma (Outside)

Kenji Haga (Outside)

As of March 28, 2013

Milestones

	History of AGC Group	Products & Technologies of AGC Group
Toward Global Management	<p>2013 • The new mid-term management plan "Grow Beyond-2015" commenced.</p> <ul style="list-style-type: none"> Architectural and automotive glass production starts in Brazil. (planned) <p>2008 • The management policy "Grow Beyond" introduced.</p> <p>2007 • Group brand unified as "AGC."</p> <ul style="list-style-type: none"> Asahi Glass Company's 100th anniversary celebrated. <p>2004 • The management policy "JIKKO" introduced.</p> <p>2002 • Glaverbel made into a wholly owned subsidiary.</p> <ul style="list-style-type: none"> The AGC Group Vision "Look Beyond" formulated. The Global In-house Company System introduced. 	<p>2013 • "An Wizus™", glass substrates for small to medium-size liquid crystal displays, launched.</p> <p>2012 • "UV Verre Premium Cool on™", tempered glass for automobile doors, launched.</p> <p>2011 • "Dragontrail™", glass for chemical strengthening, launched. (photo 6)</p> <p>2010 • Sales of "FONTEX™", a commercial plastic optical fiber enabling the world's highest transmission speed, launched.</p> <p>2006 • "Fluon® ETE Film" selected for the main stadium and the venue for aquatics games at a global sport event in Beijing.</p>
Era of Growth and Expansion	<p>1992 • U.S. glassmaker AFG Industries, Inc. acquired.</p> <ul style="list-style-type: none"> The "Blue Planet Prize" to honor those who help solve environmental problems created by the Asahi Glass Foundation. <p>1981 • Belgian glassmaker Glaverbel S.A. acquired. (photo 1)</p> <p>1956 • Manufacture of automotive glass begun. (photo 2)</p> <ul style="list-style-type: none"> The Indo-Asahi Glass Co., Ltd. established in India. <p>1954 • Cathode Ray Tube (CRT) glass bulb business begun. (photo 3)</p>	<p>1999 • Mass production of "PD200", glass substrate for plasma display panels (PDPs), begun.</p> <p>1998 • Mass production of a new alkali-free glass for TFT LCDs begun.</p> <p>1990 • "CYTOP™", transparent fluoropolymer, developed.</p> <p>1980 • AZEC System of caustic soda manufacturing using ion-exchange membrane developed.</p> <p>1975 • Production of "Asahi Guard™", fluorinated water and oil repellents, and "Aflon™ COP", fluorinated resins, begun.</p> <ul style="list-style-type: none"> Ion-exchange membrane method for manufacturing caustic soda developed. <p>1966 • Production of float glass begun. (photo 7)</p> <p>1961 • Diversification into organic chemicals, propylene oxide and propylene glycol production started.</p> <p>1954 • Production of double-glazing units (Pairglass™) begun.</p>
The Early Years	<p>1925 • Shoko Glass Co., Ltd. established in China. (photo 4)</p> <p>1916 • Production of refractories begun at the Amagasaki Plant.</p> <p>1907 • Asahi Glass Company founded in Amagasaki, Hyogo Prefecture. (photo 5)</p>	<p>1938 • Production of tempered glass and laminated glass begun.</p> <p>1933 • Caustic soda production using lime process begun.</p> <p>1928 • Production of ordinary sheet glass using the Fourcault process begun.</p> <p>1917 • First production of soda ash using the ammonium method in Japan.</p> <p>1909 • Production of Belgian-type hand-blown sheet glass begun. (photo 8)</p> <ul style="list-style-type: none"> The first sheet glass successfully manufactured in Japan.



Resources that Deepen Group Communication with Stakeholders

<p>Financial Information</p>  <p>Financial Review (PDF file only)</p> <p>Reports the AGC Group's business outline and financial information including consolidated financial statements</p>	<p>The AGC Group's Corporate Vision and Business Activities</p>  <p>AGC Report 2013 (This report)</p>	<p>Non-Financial Information</p>  <p>CSR Website www.agc.com/english/csr/</p> <p>Provides a comprehensive report on the AGC Group's efforts to fulfill its social responsibilities</p>  <p>CSR Information Supplement (PDF file only)</p> <p>Reports on the AGC Group's non-financial data and its various CSR policies and organizations for promoting CSR-related activities</p>
<p>For Comprehensive Information</p>  <p>AGC Group Website http://www.agc-group.com/en</p> <p>Provides information about the AGC Group more widely, timely and in more detail.</p>		

Scope of This Report

- Reporting Period
Fiscal 2012 (Jan.–Dec. 2012)
Some information includes content from both fiscal 2011 and 2013.
- Organizations Covered in the Report
Asahi Glass and its 202 consolidated subsidiaries
(Group companies in and outside Japan)
- Primary Notation and Report Targets Used in the Report

The AGC Group	Same as "Organizations Covered in the Report" mentioned above.
The AGC Group (Japan)	Group companies in Japan including Asahi Glass Co., Ltd.
Asahi Glass/the Company	AGC Asahi Glass Co. Ltd. (on an unconsolidated basis)
The AGC Group (Asia)	Group companies in Asia excluding the AGC Group (Japan)

Non-Financial Information Guidelines

- ISO 26000: 2010 Guidance on social responsibility
- Sustainability Reporting Guidelines Version 3.1 (G3.1), Global Reporting Initiative (GRI)
- Environmental Reporting Guidelines (2012), Japanese Ministry of the Environment
- Discussion Paper on Integrated Reporting, International Integrated Reporting Council (IIRC)

Date of Publication

June 2013 (Last date of publication: June 2012)

Regarding Future Assumption, Forecasts and Plans

Future perspectives described in this report are based on the latest information available to the AGC Group at the time of editing this report. Nevertheless, please note that results and consequences may vary with fluctuations in the business environment.

ASAHI GLASS CO., LTD.

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