

History of Value Creation

Arisawa has contributed to society for 116 years by developing its unique technologies of "weaving, coating, and molding."

First foundation

Starting "weaving" technology

The history of Arisawa began in 1909 with the production and sales of Battenberg lace. As it is said that more than 7,000 people of about 27,000 people of Takada City (presently part of Joetsu City) were engaged in Battenberg lace making, this company's foundation coincided with the trend.

In the same year, the company was renamed Nihon Braid Co. Ltd., which inspired the company's original logo "NB." In 1910, the company established Toyo Braid, a joint-stock company that domestically produced braids (fabric tapes)—the basic material for Battenberg lace—which had previously been imported, leading to the invention of "weaving" technology. The company had 800 weaving machines and 600 artisans at its peak and was renamed again to Nihon Braid in 1919.

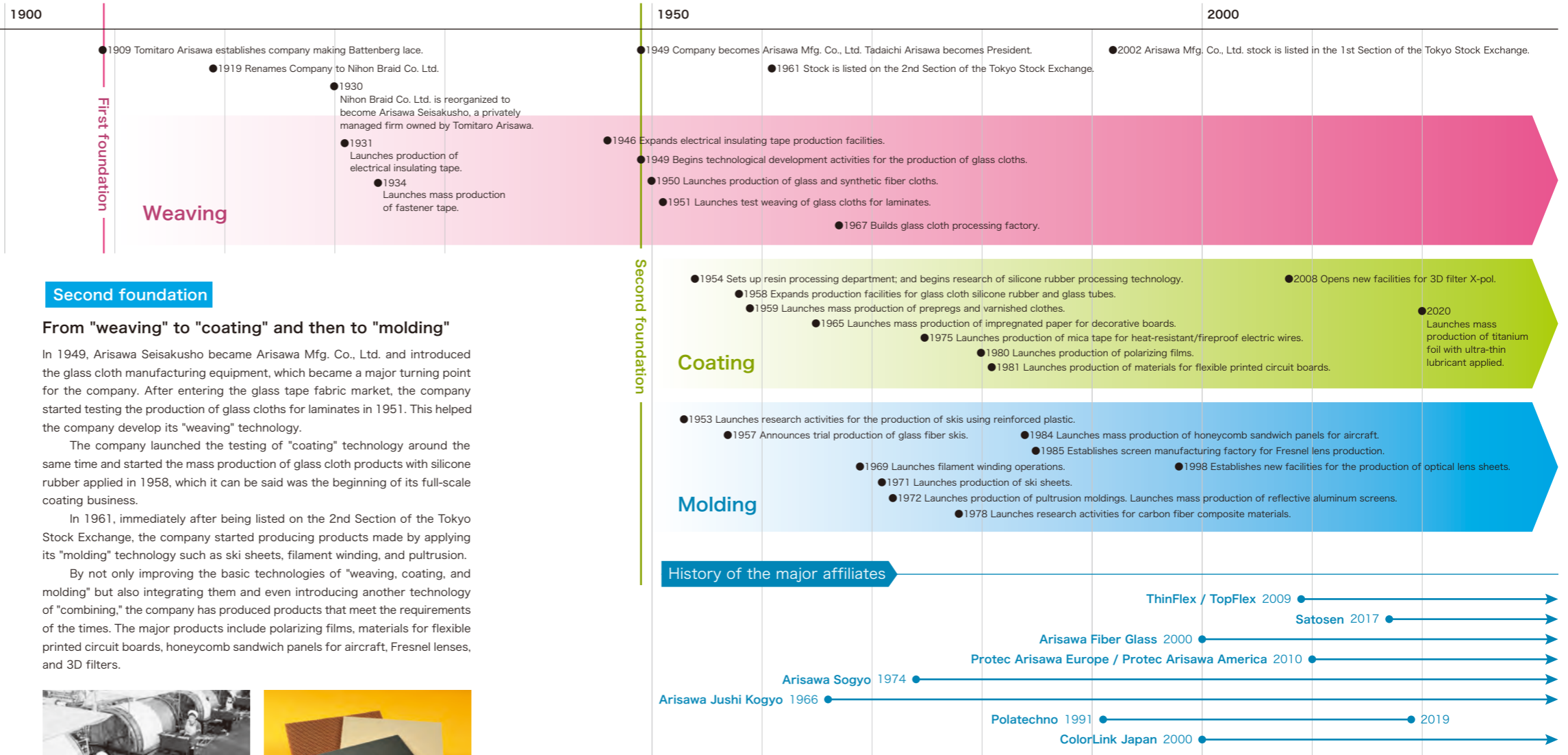
Affected by the aftermath of the Great Depression, Nihon Braid was forced to be reorganized due partially to the rise of low-priced Chinese Battenberg lace. When Nihon Braid was reorganized to become a privately managed firm, Arisawa Seisakusho, in 1930, Japanese industries were at the bottom. However, as the encouragement policy set by the Japanese government for such domestic products as electrical insulating tapes provided a supportive backdrop, the company gained top-rating clients, such as Toshiba and Mitsubishi, and established the foundation of what Arisawa is today.



Arisawa at the time of its foundation



Battenberg lace



Second foundation

From "weaving" to "coating" and then to "molding"

In 1949, Arisawa Seisakusho became Arisawa Mfg. Co., Ltd. and introduced the glass cloth manufacturing equipment, which became a major turning point for the company. After entering the glass tape fabric market, the company started testing the production of glass cloths for laminates in 1951. This helped the company develop its "weaving" technology.

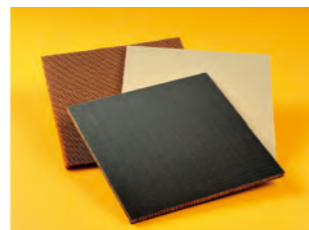
The company launched the testing of "coating" technology around the same time and started the mass production of glass cloth products with silicone rubber applied in 1958, which it can be said was the beginning of its full-scale coating business.

In 1961, immediately after being listed on the 2nd Section of the Tokyo Stock Exchange, the company started producing products made by applying its "molding" technology such as ski sheets, filament winding, and pultrusion.

By not only improving the basic technologies of "weaving, coating, and molding" but also integrating them and even introducing another technology of "combining," the company has produced products that meet the requirements of the times. The major products include polarizing films, materials for flexible printed circuit boards, honeycomb sandwich panels for aircraft, Fresnel lenses, and 3D filters.

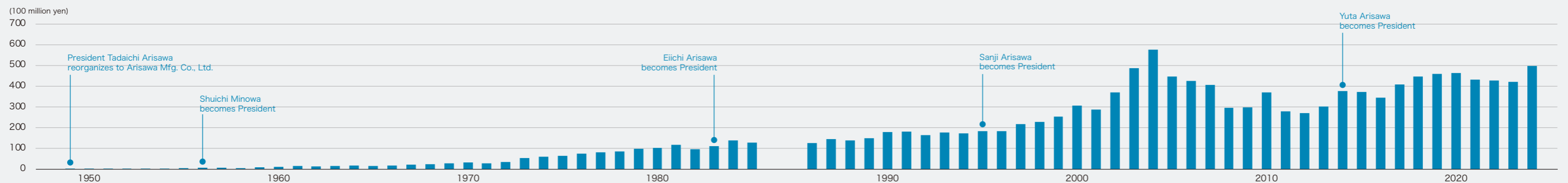


Glass cloth warping factory



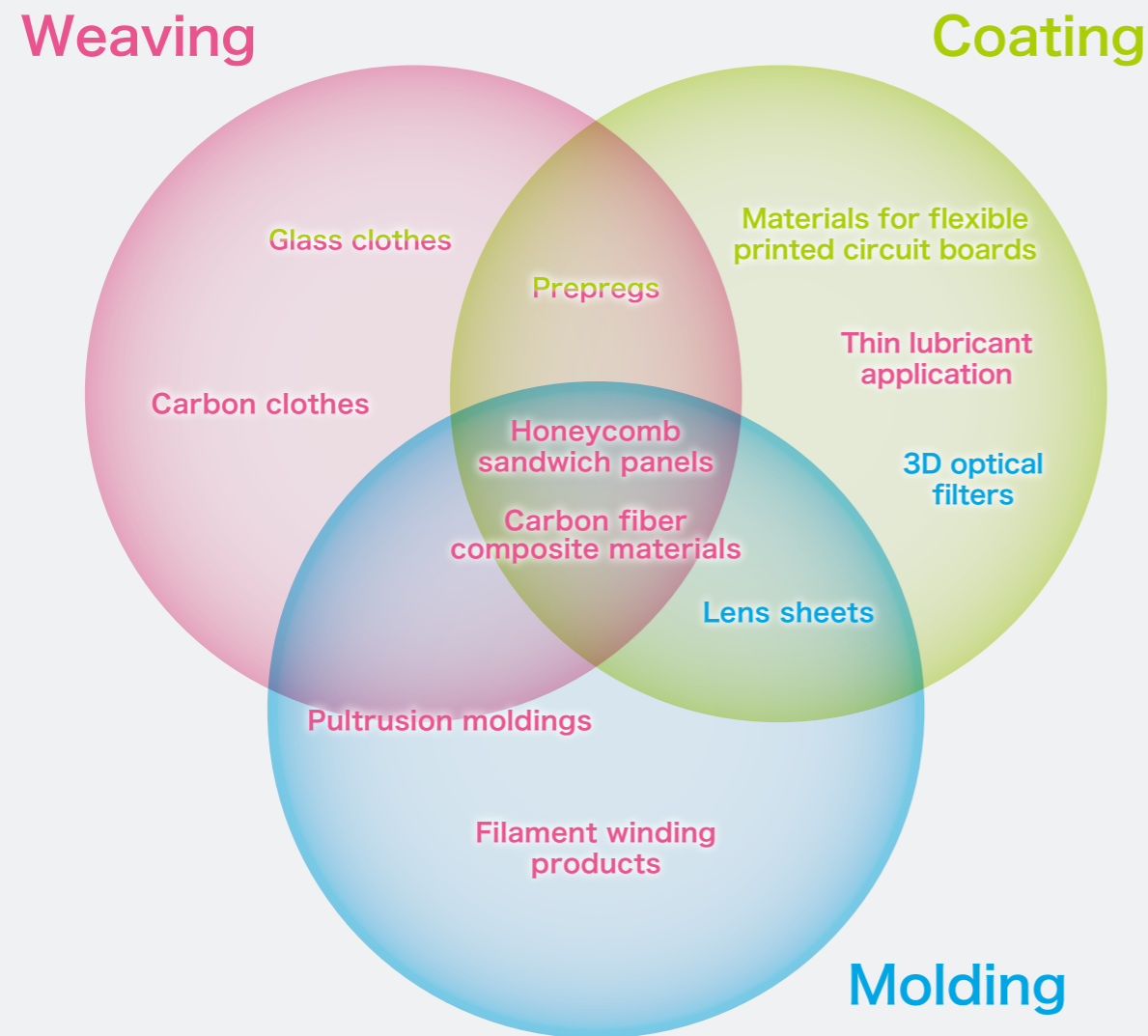
Honeycomb sandwich panels

Trends in sales



History of Value Creation

Keeping developing technologies of "weaving," "coating," and "molding" and combining them gives rise to infinite possibilities.



■ Electronic materials | ■ Industrial structural materials/Electrical insulating materials | ■ Display materials |

*The product names in the diagram are color-coded by segment.

For details on the products developed through the combination of key technologies, see page 37 (Businesses / Outline of Each Segment).

Weaving "Weaving" technology, which is the starting point of our innovation

Arisawa makes unique clothes from glass fiber, aramid fiber, and carbon fiber by using various weaving methods, such as plain weaving, twill weaving, and satin weaving. One of our strengths is capable of weaving clothes that meet the needs of clients. We offer an integrated service from thread selection to weaving design and manufacturing. We have also developed processing technologies on our own that make the most of woven clothes and tapes. There are various types of processing available to produce

high-performance clothes: "opening processing," which makes clothes thinner by spreading threads evenly, and "surface processing," which enhances adhesiveness to other materials. These high-performance clothes are applied in a wide range of areas, such as printed circuit board materials for electronic devices and automobiles, electrical insulating materials for motors and heavy electrical machines, materials for aircraft, and sports and leisure materials.

Coating "Coating" technology to produce new functions through unique resin development

Applications of coating technology allow us to produce products with functions, such as electric insulation and fire resistance, while maximizing the characteristics of materials. We specialize in "thin film coating," which coats any material thinly and evenly, and in-house development of "high-functional resins," which are optimized according to the purpose of use. We have produced thousands of products by mixing hundreds of resin recipes. Among these, our coating products, which are composed of glass clothes or films and made through the combination of

various resins, are highly acclaimed in various industries. Materials for flexible printed circuit boards are used to increase the performance of electronic devices, prepregs made of carbon clothes are used to make aircraft lighter and stronger, and electrical insulating materials are used not only for motors and generators but also to help develop nuclear fusion power plant technology. We also manufacture 3D display optical filters using fine alignment technology.

Molding "Molding" technology to maximize the performance of FRPs

Molding by mixing fibers with resins allows us to produce molding materials appropriate for the purpose of use. Various technologies are used according to the purpose of use to mold products and maximize their performance as requested by clients: press molding, which molds a prepreg into a plate, FW (filament winding) molding, which molds into a pipe through the impregnation of resin into a glass fiber or carbon fiber, and pultrusion molding, which molds by continuous pultrusion. Utilizing its characteristics,

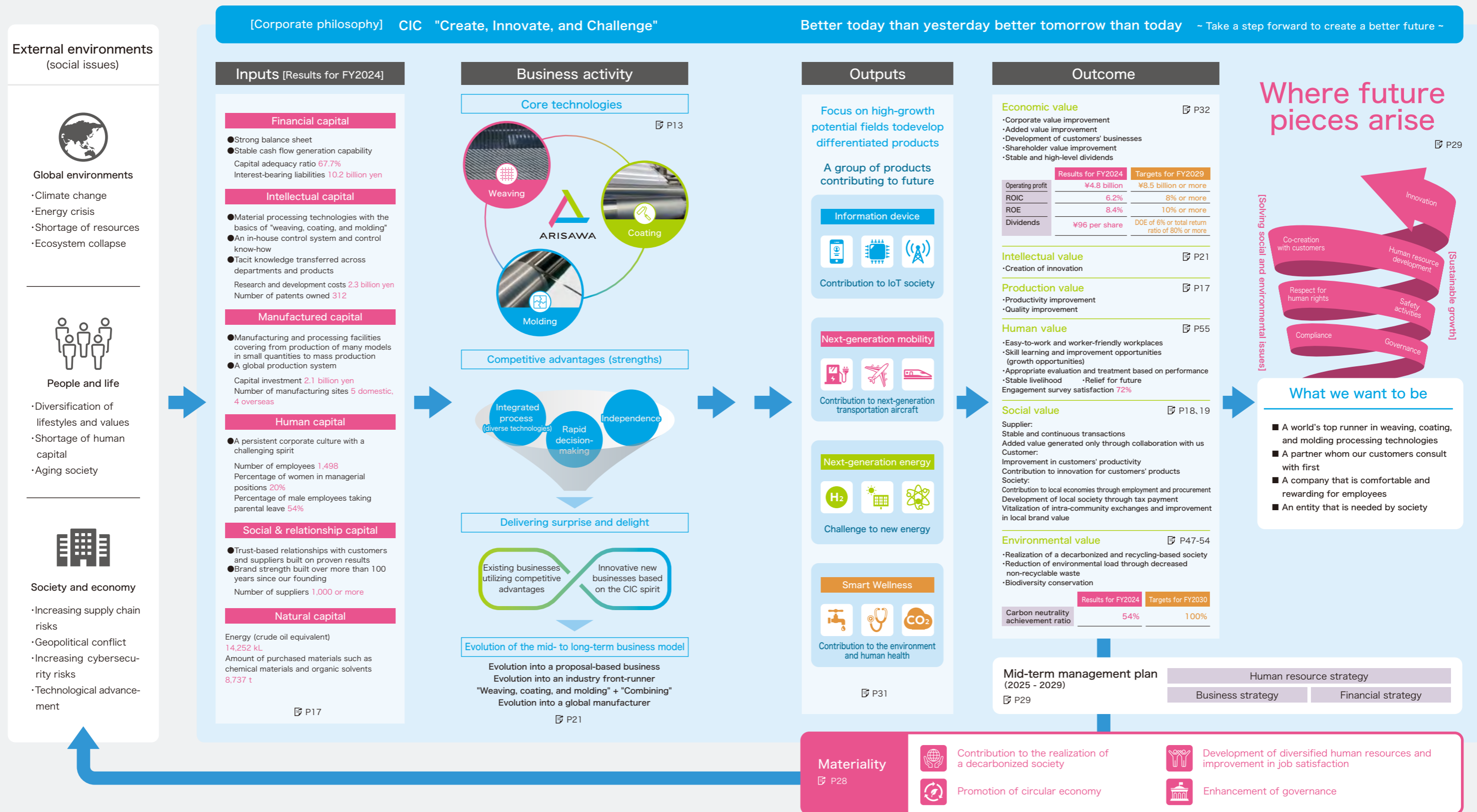
such as lightweight, easiness to handle, superior corrosion and weather resistance, and higher mechanical strength, the FRP (fiber reinforced plastic) is used for materials for aircraft interiors, pressure vessels for water treatment, materials for civil engineering constructions, and electrical insulating materials. We also manufacture optical lenses and projector screens using minute molding technology.

Value Creation Process

With responsibility and pride as a company involved in the initial stage of product-making, we will refine the techniques of "weaving, coating, and molding" and move forward more smoothly and actively to change product-making around the world for the better in the next 100 years.

Our group's current major product segments include electronic materials, industrial structural materials, electrical insulating materials,

and display materials. Through value-creation activities to support these segments, we offer products and services that help people have richer lives. We are committed to creating social and economic values by tackling the four issues "contribution to the realization of a decarbonized society," "development of diversified human resources and improvement in job satisfaction," "promotion of circular economy," and "enhancement of governance" through activities to be a strong company that can achieve sustainable growth.



Management Capital for Value Creation

With the capital built up through repeated growth as our foundation, we will further increase our competitive advantages. While evolving the value creation process through business strategy management and active initiatives on ESG issues, we raise our corporate value.

Financial capital

We have not only working capital but also financial capital that allows stable and flexible operation to implement capital investment, M&A, and DX investment for growth as necessary. Major financial resources are flexibly gained from cash flow from sales activities and borrowings from financial institutions.

We set an ROIC goal of 8% and an ROE goal of 10% in our mid-term management plan, aiming for profitability enhancement

and capital efficiency improvement. Specifically, we first maintain a healthy cash flow through business activities and secure financial soundness, and then actively allocate the capital to new business investment and research and development investment for further growth. We will return the resulting surplus appropriately to our stakeholders.

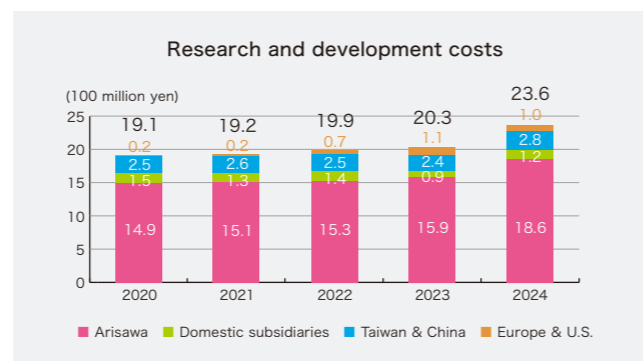
Intellectual capital

Since our foundation, we have improved our core technologies of "weaving, coating, molding," and "combining" through trial and error to fulfill customers' needs. We have many experienced engineers who have been involved in development to highly integrate these technologies and optimize the functions.

Our unique technologies made through research and development with new innovations based on the experiences passed down from senior employees to junior employees are positioned as important assets that contribute to the growth of customers' businesses. By understanding the characteristics of products required by customers and the in-house manufacturing process and incorporating our core technologies cultivated over the years, we proceed with obtaining an optimized design.

To achieve sustainable growth, we have set a target for new products to account for 50% or more of the total sales (with the counting period being 3 years after the launch). We also set up a program called the "new product development award," which is one of the incentives for employees who contribute to the development of new products, and in FY2018, we introduced a "15% culture," where employees engaged in development can spend

15 percent of their working hours studying what they like. Several products developed through this "15% culture" program have actually led to sales improvements. We will continue to improve the environment so that more new products and businesses are born.



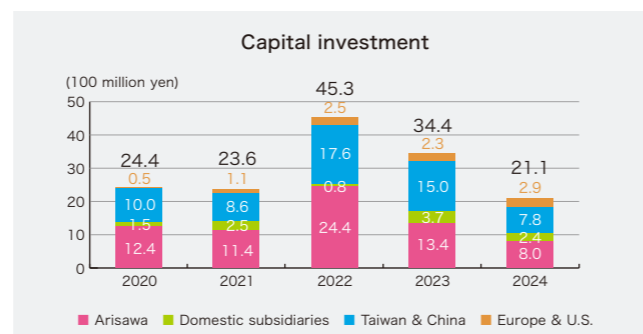
*"Combining" refers to a technology that continuously laminates multiple thin materials together, such as a two-layer, double-sided CCL (one of the materials for flexible printed circuit boards), or precisely laminates a 3D filter to an LCD panel. Technologies derived from this "combining" help us develop various kinds of products.

Manufactured capital

We use facilities that can produce many models in small quantities to better cater to various customers' needs. Having facilities that can handle medium to mass production with our sights set on the expansion of the scale of customers' businesses and an integrated production system, from pre- and post-processes to inspection, we deliver advanced quality control and stable supply. In addition, in-house development of a control system for production facilities achieves production efficiency improvement and cost reduction.

We discuss quality at a daily meeting called "Hiruichi" ("ichi" means a "market" where people gather) held at 1 p.m. to prevent problems and issues from being carried over to the following day. The managers and staff of the Manufacturing Division, the Quality Assurance Department, and the Manufacturing Engineering Department gather to share daily issues and data and work

together to find solutions through discussions on defect causes and yield rates. This communication helps support field skills.

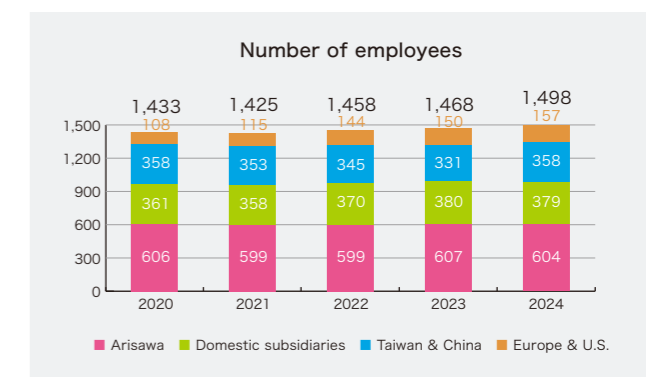


*Until last fiscal year, we reported capital expenditures limited to tangible fixed assets. From this fiscal year onward, intangible fixed assets are included in the scope of reporting.

Human capital

Our executives and employees are traditionally serious, sincere, honest, patient, and hungry for challenges, which has supported more than 100 years of our history. By integrating knowledge and technologies cultivated since our foundation step by step through trial and error, we have offered highly reliable products to customers.

We have multi-skilled operators who can handle various products, trained operators with adapting capabilities, and development specialists, and many of them have been long employed. We enhance added value and improve productivity by strengthening this talent base and building an even stronger professional network.



Social & relationship capital

Based on the relationship of trust with suppliers, we grasp the circumstances of each industry and take such measures as advanced acquisition of materials that have procurement risks. We have also diversified suppliers to establish a stable supply chain.

Promoting CSR procurement with respect for human rights, labor rights, and the environment while ensuring material quality and stable supply allows high-quality and stable product-making. With the importance placed on continuous partnerships with suppliers based on trust, we conduct procurement for mutual sustainable growth.

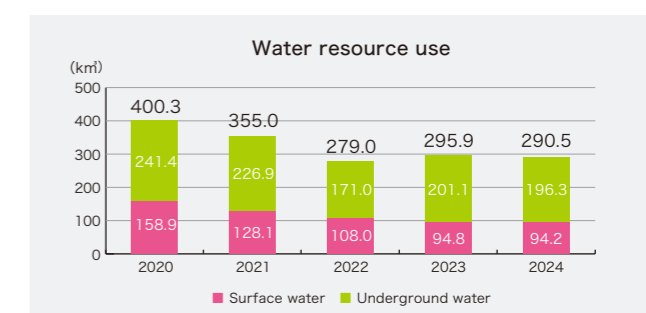
At the time of our entry into the FRP field, when we only had weaving technology, we sincerely focused on prototype-making to materialize requests while being given technical advice by heavy electric manufacturers. These experiences helped us build a strong relationship of trust with clients. A person from a trading company once told me, "Mr. Arisawa, your company is a department store of prototypes."

We would like to cherish the relationship with clients who contact us first in the consideration or prototyping phase, which is a great asset to us.

Natural capital

As climate change countermeasures, we introduce renewable energy and improve energy use efficiency to reduce CO₂ emissions.

We are also working on reducing water resource use and waste disposal as measures for resource circulation and global environmental conservation. Regarding reductions in water resource use, we have enhanced water intake management by installing a flowmeter and have introduced aboveground piping to prevent leaking.



*In the reports up until last year, sewage usage was included in surface water usage. We have corrected it retroactively for previous years to reflect surface water usage only.

TOPICS

APS Circle Activities of the Year 2024

On May 21, the presentations and awards for the "APS* Circle Activities of the Year" 2024 were held at the Nakadahara Cafeteria Building. The APS Circle Activities are an organized initiative undertaken by the Manufacturing Division since 2002, building on traditional bottom-up activities. Each team from the Manufacturing Division addressed issues identified for productivity improvement, and presented on three carefully selected cases, covering their effects and key points in the improvement process. The accumulation and expansion of these activities lead to our strengths.

*The abbreviation of Arisawa Production System (our production management system)

APS Circle Activities
Awarded themes

Improvement in the work efficiency of overlay inspections
(FPC Group)

Reduction of roll cleaning time after coating carbon products
(Coating Group)

Productivity improvement in the weaving process
(Molding Group)

Takao Mochizuki
Senior Operating Officer and Division Chief,
Manufacturing Division

Sources of Value Creation

We aim to create a sustainable society and ensure its growth by creating a business model with originality while tackling social issues and then providing various values to our stakeholders.

Initiatives toward business model evolution

[Enhance dialogue with stakeholders to improve sustainable corporate value]

To efficiently operate business portfolio management for further improvement in corporate value, we focus on capital cost-conscious management with ROIC set as an indicator. It is also important that our management direction is properly understood and empathized by our stakeholders.

We accurately grasp the requests, expectations, and opinions of diverse stakeholders—including shareholders/investors, customers, employees, suppliers (partners), local communities,

and the global environment—through engagement such as dialogue and reflect them in our management. Then, we pursue our sound and sustainable growth and continuous improvement in corporate value.

Furthermore, we enhance the content of our disclosure materials and strive to provide timely, appropriate, and fair information disclosure, thereby fulfilling our corporate accountability.

Stakeholder	Responsibilities to be fulfilled	Main engagement methods	
Shareholder and investor	<ul style="list-style-type: none"> ● Provide timely, appropriate, and fair information disclosure ● Ensure management transparency through continued constructive dialogue ● Enhance dialogue methods ● Share opinions and challenges gained through dialogue within the company and reflect them in management strategies ● Maintain long-term stable dividends and implement flexible return to shareholders 	<ul style="list-style-type: none"> ● General meeting of shareholders ● Earnings briefing for institutional investors and analysts ● One-on-one meetings with institutional investors and analysts ● Meetings with overseas institutional investors ● IR (domestic, overseas) 	<ul style="list-style-type: none"> ● Securities report ● Summary of financial results ● Financial results presentation materials ● Responding to questionnaires from research institutions related to ESG, etc. ● Integrated reports ● Website
Customer	<ul style="list-style-type: none"> ● Provide high-quality products and services that enhance customer satisfaction through consistent quality management based on a quality management system ● Develop and provide advanced technology products to meet the diverse needs of customers 	<ul style="list-style-type: none"> ● Sales activities ● Customer satisfaction survey ● Sustainability-related survey ● Participation in exhibitions 	<ul style="list-style-type: none"> ● Website ● Integrated reports ● Innovation gallery (Innovation Center)
Supplier	<ul style="list-style-type: none"> ● Build and strengthen fair, equitable, and transparent transactions and relationships of trust as a partner committed to mutual growth ● Respect workers' human rights and realize a comfortable work environment that safeguards safety and health ● Achieve sustainable supply chains (including legal compliance) 	<ul style="list-style-type: none"> ● Human rights policy ● Procurement ● CSR Procurement Policy ● Supplier survey 	
Employee	<ul style="list-style-type: none"> ● Establish an environment and systems that respect human rights and diversity and that enable each individual to fully leverage their unique abilities and thrive ● Develop capacity through various educational programs ● Maintain a comfortable work environment that safeguards safety and health, and establish systems to support physical and mental well-being ● Assess employees fairly and impartially ● Establish various measures and systems to achieve work-life balance 	<ul style="list-style-type: none"> ● Labor-management council ● Information dissemination utilizing the internal portal ● Publication of the company newsletter ● Engagement survey ● Compliance consultation services 	<ul style="list-style-type: none"> ● Establishment of various consultation services (mental health, caregiving support, etc.) ● Performance evaluation system and interviews ● Implementation of various training programs ● Occupational safety and health management system
Local community	<ul style="list-style-type: none"> ● Aim to realize a sustainable society with proactive participation of each employee in social contribution activities ● Fulfill our responsibilities as a corporate citizen ● Revitalize the local economy and secure employment 	<ul style="list-style-type: none"> ● Facility tours ● Environmental conservation activities ● Volunteer activities ● Disaster area recovery support 	<ul style="list-style-type: none"> ● Next-generation development support activities (donations for development support funds, etc.) ● Fair and equitable taxation
Global environment	<ul style="list-style-type: none"> ● Conserve natural environment and biodiversity ● Provide products and services that contribute to global environmental conservation ● Reduce environmental load in business activities 	<ul style="list-style-type: none"> ● Disclosure of environmental load information (integrated reports, website, etc.) 	

[Reflection on management]

We have established the system to appropriately report opinions and management issues obtained from shareholders and investors through IR and SR activities, to the President, executives, and the Board of Directors. We thoroughly deliberate on matters of interest to shareholders and investors in forums such as the Board of Directors, incorporate them into our management, and respond to societal expectations and demands.



General meeting of shareholders

The general meeting of shareholders serves as the company's highest decision-making body and as a forum for constructive dialogue with shareholders. We actively disclose information through notices (including English translation) of the meeting and other communications and strive to provide thorough explanations in response to questions from shareholders to demonstrate our accountability.

Dialogue with institutional investors

In addition to quarterly earnings briefings, presentations and meetings are held for domestic and overseas institutional investors. We recognize the importance of SR as well and are advancing dialogue.

Dialogue history (FY2024)

General meeting of shareholders	Earnings briefing	IR meeting	SR meeting
Once	Twice	87 times	9 times

Key feedback from shareholders and investors	Our actions
To clarify the challenges and improvement measures for enhancing ROIC	Disclosed information in the mid-term management plan (2025–2029) and disclosed the ROIC tree in the integrated report.
To provide information regarding the relationship with creating business value through sustainability management and ESG initiatives	Improved the content of the integrated report.
To enhance disclosure materials and expand opportunities for dialogue	
To strengthen return to shareholders	Improved the policy of return to shareholders (higher of either a total return ratio of 80% or more or a DOE of 6%).
To explain the linkage between human resource strategy and management strategy, and the gap between KGIs (key goal indicators) and the current situation	Explicitly stated in the mid-term management plan (2025–2029) that the human resource strategy forms the foundation for driving both business and financial strategies.
To consider greater communication from outside directors to stakeholders	Included the messages from outside directors in the integrated report 2024.

Quality improvement

Utilizing know-how cultivated through APS (our production management system), we will improve our services and quality including ones in new fields.

New value creation and challenge for new fields through co-creation

We aim to create new value through co-creation enabled by open innovation, continuing to be a good partner for our customers and suppliers. We will also expand our business into new business fields to increase value proposition for further improvement of corporate value.

Promotion of coexistence and shared prosperity with the environment

Toward long-term coexistence and shared prosperity with society, we promote eco-friendly product and technology development to actively create new value.

Promotion of human resource strategy

To keep offering products and services that exceed the expectations of customers and society, we deploy a human resource strategy that encourages, supports, and nudges motivated employees for their growth. We also promote a comprehensive organizational strategy so that employees can work lively under the new Arisawa brand.

Sources of Value Creation

Transforming Our Patent Strategy: From Defense to Offense

To maintain and improve technological innovation and competitiveness, we place importance on owning effective patent rights and know-how. While preventing important technologies from leaking, we acquire the date of notarization for some know-how and secure the right of prior use. Our previous intellectual property strategy focused on preventing other companies from infringing our patents and heightening barriers to entry into our businesses.

Using ai-coater* launched in the year before last, we started promoting open innovation proactively and has captured joint development projects and new OEM projects. This allows us to enhance the cooperative relations with our clients and explore new markets. It also clarifies new technical issues through joint development and accelerates the acquisitions of patents and know-how in the solution-finding process. By properly managing

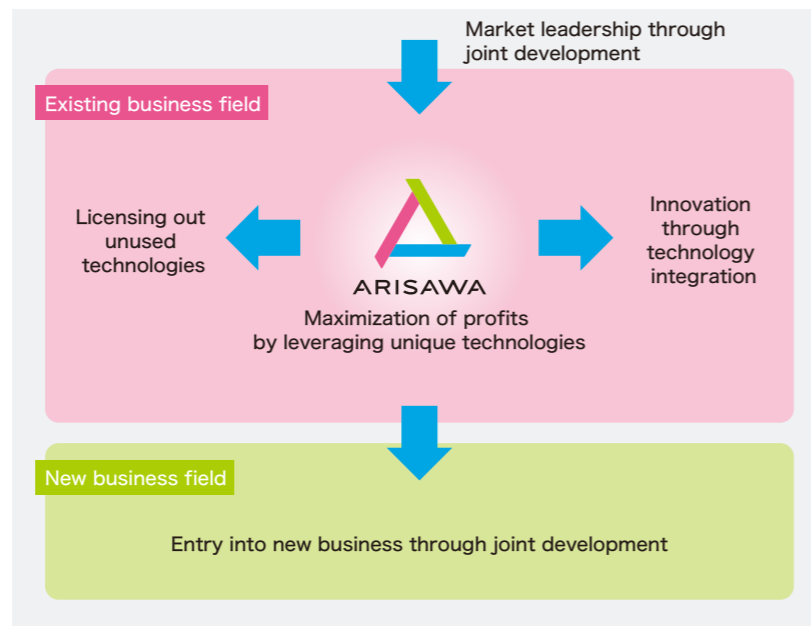
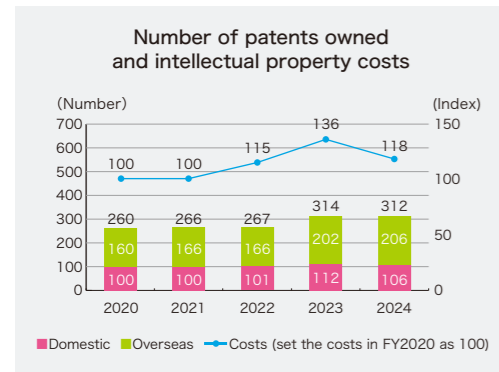
the use of patents and know-how while making joint applications, we continuously improve our technologies and further strengthen our competitiveness.

We also provide internal professional education periodically to cultivate personnel who can present the results of intellectual property and patent information analysis as decision-making materials when executives formulate business strategies. Furthermore, we enhance our employees' awareness of intellectual property rights through a review of our patent acquisition incentive system, thereby strengthening the competitive advantages of the entire Arisawa group. Going forward, we will develop our patents and know-how as powerful assets and utilize them to explore new markets and expand our businesses.

*ai-coater (arisawa innovation - coater): A new small experimental coating machine launched in September 2023

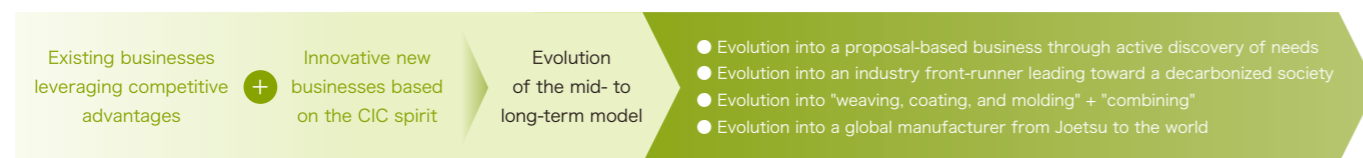
[Open innovation]

- We enhance our corporate value by integrating our originality with that of partner companies and expanding sales channels for both parties.
- By licensing out our underutilized technologies, we aim to increase revenue through licensing fees while also contributing to society.



Direction of business model evolution

We expand the areas of proposal-based business through the active discovery of needs by leveraging the experiences in the existing business fields with competitive advantages. We develop needs with our innovative proposals and high-quality product-making based on the CIC spirit to create new businesses.



New Initiatives for Value Creation

TOPICS

Exhibiting at NEIA Electronica Niigata 2024!

We exhibited at Electronica Niigata 2024, hosted by NEIA (Niigata Electronic Industries Association) held at Hive Nagaoka from Wednesday, November 20 to Thursday, November 21, 2024. 46 companies and organizations based in Niigata Prefecture participated in the event.

At our booth, we showcased our flagship products, displayed posters introducing the Innovation Center, offered 3D viewing experiences, and screened company introduction videos on a 65-inch monitor.



Takeshi Aizawa, Senior Operating Officer and Deputy Division Chief, Administration Division, explaining to attendees



Takahito Tanabe, Senior Operating Officer and Deputy Division Chief, Manufacturing Division, guiding visitors through the 3D viewing experience

Boosting employee awareness through workshops!

To foster a change in employee mindset, the workshops launched in 2020 have been held 74 times, with a total of 1,942 participants. Divisions including the Operations Subcommittee which considers how to operate the Innovation Center actively engaged in the workshops.

"Employees from various divisions actively participated and shared many opinions and ideas that they do not normally have the opportunity to voice. We feel that our determination to change was effectively shared with participating employees." (Message from the Operations Subcommittee)

Themes discussed in the workshops

- Learning about the origin of Arisawa "Battenberg lace"
- Environment that inspires new challenges
- Strengths and improvements of our division
- Let's think about our lifestyle
- Working in the new lab etc.



Members of the Operations Subcommittee

New brand logo object installed!

In December 2024, a large-scale object was installed at the Joetsu Head Office (Minami-honcho Factory), helping to promote awareness of the new brand logo. Some of our visitors took commemorative photos in front of the object. It is also expected to contribute to enhancing employee engagement.



Arisawa expanding across Joetsu City and Niigata Prefecture

With the aim of increasing brand awareness, we placed advertisements on city buses in April 2024, and later on express buses operating between Niigata-Joetsu and Niigata-Nagaoka in September.



Innovation Center

The ARISAWA Innovation Center — a platform shaping the next 100 years — is finally here!



Opening ceremony held

Construction of the ARISAWA Innovation Center, which had been underway for some time, was completed, and a grand opening ceremony was held on September 2.

On the day, more than 100 guests—including customers and suppliers—were invited, and the opening was celebrated in a festive atmosphere. The guests were divided into six groups and participated in a facility tour. During the tour, they were introduced to the center's concept, its environmentally conscious design, and various initiatives to create a more comfortable working environment for employees. Details are described on the following pages.

Gratitude to all those involved

The celebration was held in the center's public area in a lively atmosphere. With the cooperation of leading restaurants in Joetsu, dishes and beverages made with local ingredients were served, providing an opportunity to express our gratitude to all attendees. The ARISAWA Innovation Center is a new hub that will shape our future. From here, we will pursue open innovation and contribute to society. We extend our deepest gratitude to all those involved for their dedicated efforts.

Remarks by the guest representative



Congratulations on the completion of the ARISAWA Innovation Center. Innovation means technological innovation. Today's Arisawa is the result of continuous innovation in response to the demands of the times. For example, Mr. Tadaichi Arisawa, the grandfather of President Yuta Arisawa and a former Chairman and President of Mitsubishi Gas Chemical, pioneered Japan's first methanol production using natural gas by leveraging local resources, thereby bringing innovation to the energy business. Furthermore, Arisawa's weaving technology represents an innovation that draws on the

Battenberg lace techniques developed in the Takada region of Joetsu City and continues to produce glass cloth and other materials that support a wide range of industries. Innovation is not limited to technology; it also includes the effective use of resources and the building of organizations through networks. I look forward to seeing the new technologies and values born from this center contribute to the world.

MITSUBISHI GAS CHEMICAL COMPANY, INC.
Senior Adviser **Toshikiyo Kurai**

Driving growth and development with stakeholders through the effective use of the center

The Innovation Center was established in response to the rapid pace of social change and concerns that relying solely on in-house technologies could eventually reach its limits. To ensure our continued growth, we aim to leverage the expertise and knowledge of our existing and new customers to create a "chemical reaction" with our technologies. Thanks to everyone's support, we now have an excellent facility that serves as the hub for our activities. We continuously advance our technological development with the cooperation of many people. The vision for the center is "open innovation." We want not only our technical staff but all employees to pool their ideas and make full use of this facility.

Just as water becomes stagnant and fish can no longer live when a river stops flowing, people and organizations begin to lose relevance the moment they cease moving forward. We aim to become an even stronger technology-driven company by fully leveraging the Innovation Center while maintaining our development momentum.

We need to develop and grow together with all our stakeholders including our customers, suppliers, and local communities who support us.



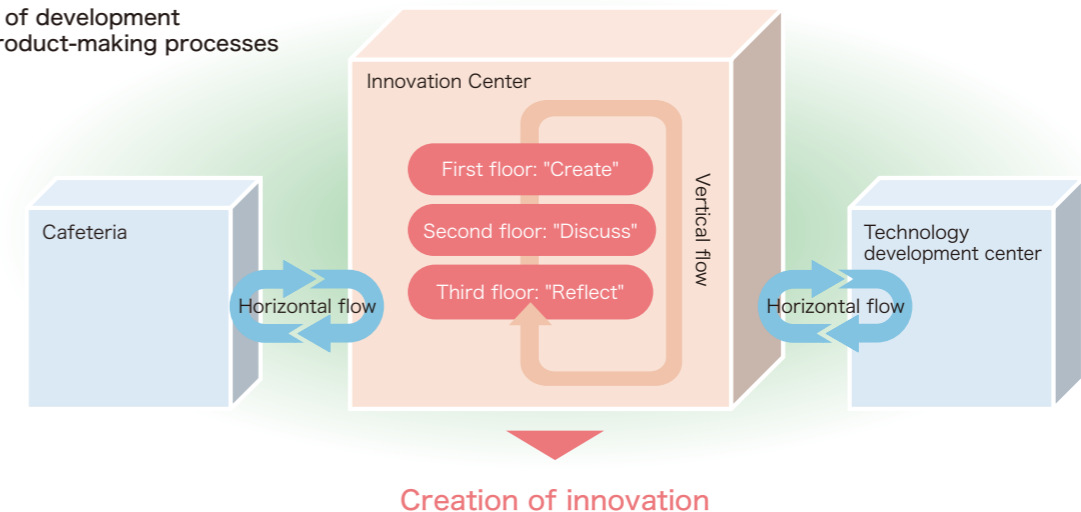
Concept (1) Three-tier structure: "Create," "Discuss," and "Reflect"

The center features a three-tier structure based on the concepts of "Create" on the first floor, "Discuss" on the second floor, and "Reflect" on the third floor. The workflow follows a continuous cycle: create, discuss, reflect, and return to the first floor to revise as needed. It is designed around the vertical axis of the development and manufacturing processes, with a concept that encourages verification and thoughtful reflection through dialogue during development.

Furthermore, the "flow" of people and information is essential for innovation. Within this flow, ideas and opinions intersect, sometimes giving rise to entirely new concepts. As a horizontal axis to facilitate this interaction, the existing technology development center and the cafeteria are connected by a covered walkway. The design concepts—including vertical and horizontal axes, as well as areas of accumulation and flow—incorporate numerous ideas and suggestions collected from employees workshops.



"Flow" of development and product-making processes



Innovation Center



Welcome to the ARISAWA Innovation Center.

Here, we freely exchange ideas and move forward with manufacturing that inspires excitement and anticipation for what lies ahead.

1st FLOOR

Create

The lab has three workshop areas adjacent to each other. Once the results of experiments and prototyping are available, we can discuss them immediately. We aim to accelerate research and development by efficiently cycling through exploration and dialogue.



2nd FLOOR

Discuss

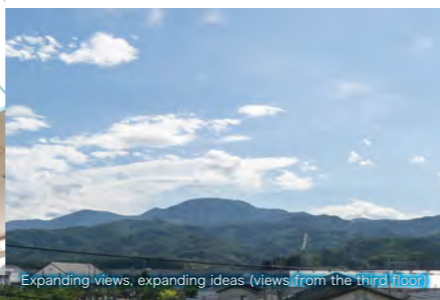
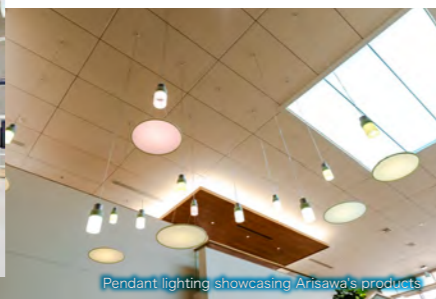
A private area is designed with free-address seating to encourage dialogue across departments and job titles, alongside a public area accessible to everyone. Together, they form a starting point for open innovation where diverse people and ideas converge.



3rd FLOOR

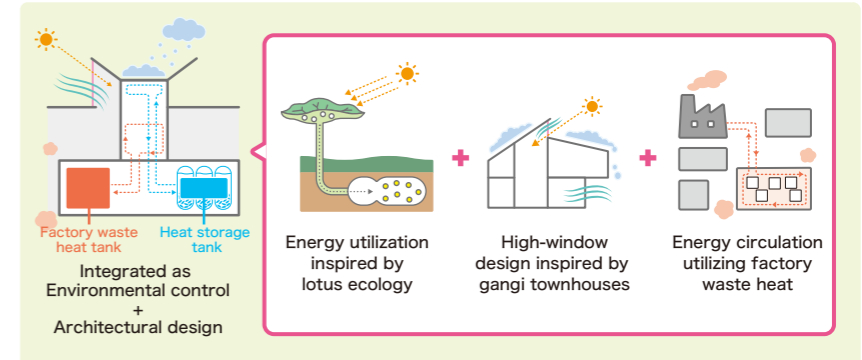
Reflect

To meet the need for spaces that support deep focus, multiple private booths are installed on the third floor. By quietly reflecting on experimental results in these small, secluded rooms, new ideas can emerge.



Concept (2) Ultimate saving energy

Inspired by the lotus flowers at Takada Castle Site Park—often described as the finest in the East—and by the traditional Japanese townhouses with gangi eaves (covered wooden walkways designed to protect pedestrians from snow,) this center was established. The design incorporates the functions of lotus leaves, stems, and roots, makes use of the natural light and breezes found in the gangi townhouses; and repurposes previously discarded factory waste heat—maximizing environmental performance.

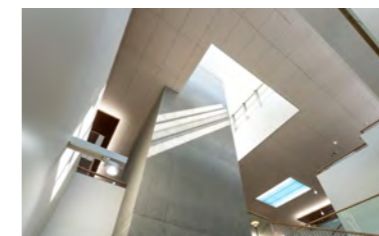


ROOF



The roof, inspired by the lotus leaves motif, extracts cooling energy from collected snow. This energy is then stored in an underground snow-based heat storage tank (the lotus root section) for use in summer air conditioning. By shifting our approach from snow removal and disposal to snow collection, we have created "a modern version of a Yukimuro, traditional snow storage facility."

SHAFT



The shaft serves as a passageway for cooling energy extracted from roof snow as well as for factory waste heat. In summer, the cooling energy stored in the "lotus root" section during winter is used for radiant wall cooling. In winter, recovered factory waste heat is used for radiant wall heating—contributing to energy savings throughout the year.

LOUVER



The louvers, which appropriately blocks sunlight, wind, rain, and external views, are made using pultruded materials from our group company, Arisawa Sogyo. They were specially designed for this center and feature a special surface coating for enhanced weather resistance.

TOPICS

Making the Most of the Innovation Center

Future users of the center shared their aspirations for how they hope to use it.



Myongfa Cho

Sales & Marketing Department, Performance Material Business Division
Customers often say to me, "I didn't know Arisawa made products like this." I hope everyone who visits this center will make many unexpected discoveries. It is a place where each visit brings something new to discover and offers fresh inspiration. That is the vision we have for this center.



Kosuke Ikezoi

Process Technology Department

As we have more opportunities to talk with customers, we can better understand their needs and proactively make proposals. This center is not just for the technical division. By working closely across divisions, I hope to turn our collaboration into product development and meaningful innovation.



Akihito Wakui

Manufacturing Engineering Department

We faced many challenges along the way, such as the hard ground slowing down the piling work and heavy snowfall that required snow removal before construction could continue. However, we are relieved that we can finally "unveil" the project. We are looking forward to seeing how this system, which encourages natural communication, will make a difference.



Shizuka Shiraishi

Innovation Center Operations Office

Our department is like a chef who skillfully prepares delicious dishes using the finest ingredients from across the company—including sales, engineering, production engineering, manufacturing, and support departments. It is truly rewarding work. We are confident that we can turn these ingredients into something exceptional. We also intend to continue holding workshops going forward.