



# YKK AP Integrated Report 2023

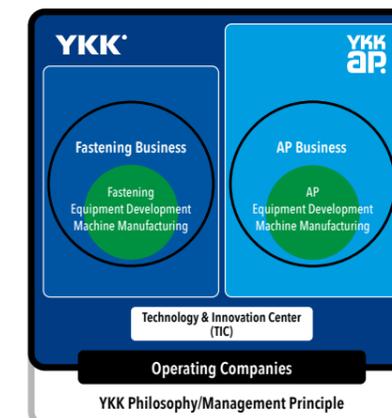


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**YKK Group Management Structure**



Since 1934, when YKK founder Tadao Yoshida began processing and selling fasteners, the YKK Group has developed its business by creating new value in fasteners through the establishment of an integrated production system and overseas expansion. Today, the YKK Group is a group of companies that share the YKK philosophy of "Cycle of Goodness" and the Management Principle, "YKK seeks corporate value of higher significance," with YKK's fastening business and YKK AP's AP business at its core. While sharing common ideas and philosophies, we are enhancing our business competitiveness through management structures that are best suited to each of our businesses.

# YKK Group and YKK AP Philosophy

## The Philosophy We Cherish

YKK's founder, Tadao Yoshida made the "Cycle of Goodness" the central philosophy of all business activities. Based on this philosophy, and in keeping with the times, Tadao Yoshida, the second YKK president and YKK AP's founder, established the Management Principle, "YKK seeks corporate value of higher significance." These are the shared philosophies of the YKK Group, which we continue to cherish and pass on to future generations.

Meanwhile, at YKK AP, the purpose of our existence is that "We Build a Better Society Through Architectural Products," a Purpose that was formulated on the basis of these philosophies.

"AP (Architectural Products)" in our company name embodies the company's founding ideal of "always continuing to pursue the highest levels of art and technology, two elements that have formed the basis of architectural culture throughout history." In addition to the spirit of curiosity and exploration toward art and technology that we have always fostered, we are aiming to create "Architectural Products" that have value in their time period, and thereby help build a better society. Our Purpose expresses these ideals of our employees in words. With these philosophies in mind, YKK AP is taking on the challenges presented by this new era.

## YKK Philosophy

**Cycle of Goodness®: "No one prospers without rendering benefit to others."**



As an important member of society, a company survives through coexistence. When the benefits are shared, the value of the company's existence will be recognized by society. When pursuing his business, YKK's founder, Tadao Yoshida was most concerned with that aspect, and would find a path leading to mutual prosperity. He believed that using ingenuity and inventiveness in business activities and constantly creating new value would lead to the prosperity of clients and business partners, making it possible to contribute to society. This way of thinking is referred to as the "Cycle of Goodness," and has always served as the foundation of our business activities. We have inherited this way of thinking and have established this as the YKK Philosophy.



YKK's founder  
**Tadao Yoshida** (1908-1993)

## Management Principle

**"YKK seeks corporate value of higher significance."**



Seeking corporate value of higher significance, YKK will pursue innovative quality in the seven key areas shown above.

The YKK Group's Management Principle, based on the spirit of the "Cycle of Goodness," is to "seek corporate value of higher significance." We aspire to become a company that is appreciated by our customers, valued by society, and where all employees are able to work with pride and pleasure. As a means to achieve this, we will enhance the quality of our products, technology, and management. In putting these into practice, we always place Fairness at the foundation of all our business activities. This Management Principle was formulated in 1994 by Tadao Yoshida, then president of YKK and YKK AP.



YKK AP's founder, Currently Corporate Advisor of YKK and YKK AP  
**Tadao Yoshida**

## Purpose

*We Build a Better Society  
Through Architectural Products*

With a spirit of curiosity and exploration, we develop architectural products of true value that connect people, planet, and the future.  
We want to create a better society, while remaining committed to the art and technology that have always been fundamental to architectural culture.

YKK AP's Purpose expresses our desire to be a company that contributes to society through our products and services. That is, to continue to meet the desires of our customers and business partners with the Architectural Products that form the structural elements of houses and buildings. In doing so, we continue to be a company that contributes to customers, business partners, and society at large. While carrying on the ideals embodied in the company name "YKK AP," we aspire to remain an integral and essential part of this ever-changing society.





**President's Message**

**Akira Uozu, President Representative Director**

# Become a Global Leading Company Through the Evolution of Architectural Products

In April of this year, YKK AP transitioned to a new management structure. Following in the footsteps of the founder and first president Tadahiro Yoshida and the second president Hidemitsu Hori, I am once again humbled by the great responsibility of ensuring the sustainable growth of the business.

From the time I joined the company in 1985 until FY2021, I have dedicated myself to the sales of architectural products. From my experience as a sales representative, I have come to believe that our first priority is to solve issues faced by our business partners and generate profits for them, and that our products are the means to that end. Since FY2012, I have been responsible for the window business and have been promoting vinyl windows nationwide. By continuing to communicate that vinyl windows, which were not yet widely accepted in the market, would benefit our business partners and contribute to homeowners' healthy and comfortable lives, I laid the foundation for the current window business. Thereafter, I took charge of international business as Executive Vice President in FY2022 before I assumed the presidency.

As my personal motto, "moving forward" suggests, I have been pressing ahead with enthusiasm, placing the highest priority on providing value to homeowners and our business partners. As president, I am determined to move the company onward with even more vigor and strength than before.

**Developing the "Evolution 2030" vision**

In March of this year, upon assuming the position of president, I developed "Evolution 2030," which sets a global leading company, as a vision for "how we seek to be in 2030 and how we ought to be," and defines how to make that vision a reality. For the past 12 years since 2011, former president Hori has pursued monozukuri and achieved sustainable growth under the policy of being "a company committed to products and manufacturing." It is my aim to uphold this policy and become a global leading company through the evolution of Architectural Products.

Specifically, focusing on the three key themes of "contributing to the global environment," "creating new value for our customers," and "prioritizing employee well being and

engagement," we have set out such targets as reducing internal CO<sub>2</sub> emissions by 80% (relative to FY2013), achieving a 100% recycling rate of aluminum from external suppliers (in Japan), and increasing our overseas sales rate from the current 17% to 30% by FY2030.

In order to provide new customer value, we will also proceed with the transformation of our business model. One example is the "Integrated insulated building envelope solutions," which starts with high thermal insulation windows and combines products with insulating structures for the building envelope, such as walls and roofs, with design, installation methods, and consulting services. As a high value-added curtain wall (CW) for commercial buildings, we are also working on development and proposals of "unitized CWs" for mid-rise buildings, which contribute to labor savings and shortened installation periods.

Active investment will be essential to achieve these goals. From FY2023 to FY2030, we expect to make a total of 50 billion yen in domestic and overseas sustainability-related investments, and 100 billion yen in overseas investments. Particularly with respect to overseas investments, we intend to renew aging facilities, introduce automation equipment, etc., and rebuild buildings. The need for mid- to long-term investment planning in foreign countries is something I became keenly aware of while actually visiting the areas concerned.

**The Three Policies of Evolution 2030**



→ Overseas sales ratio P56

→ Unitized CWs P45

→ Investment plan P11



### Fostering an organizational culture in which a diverse range of employees can thrive

In terms of "Prioritize employee well being and engagement," in accordance with the YKK philosophy of the "Cycle of Goodness," we aim to become a company that is chosen by a diverse range of individuals by creating a comfortable work environment, investing in our employees, providing opportunities for growth, and running a business cycle that creates jobs. As a basic premise for this approach, we established the "YKK AP Human Rights Policy" in April. Although we have been striving to respect human rights in accordance with the "YKK Group Human Rights Policy," this time, the policy was established independently to reflect our company's business activities. Furthermore, we would like to lay the groundwork for an environment in which a diverse range of personnel can play an active role, and raise the proportion of management positions held by women from the current level of approximately 6% to the same level as the proportion of women among our employees.

By steadily implementing these measures, we aim to

become a leading company with net sales on the order of one trillion yen. We have set this ambitious number in the hope that each employee will energize their ideas and activities by backcasting from there to think "what I can do to make it happen?"

I was also impressed by the fact that when, in the process of developing the vision, I mentioned specific numerical targets in front of the employees, the relevant departments immediately moved to explore the possibility of realizing them. Former president Hori once told me, "A single word from the president can encourage employees," and once again I am made aware of the president's responsibilities and the importance of presenting figures.

### Expanding production capacity, enhancing our ability to respond to demand

In FY2022, net sales reached 508.6 billion yen, a record high for the second consecutive year, with significant growth both in Japan and overseas. In response to soaring material prices, which have been a major issue in Japan, we have steadily

→ [Human rights and human resources](#)  
P29-32

→ [YKK philosophy – "Cycle of Goodness"](#)  
P4

→ [The 6th Mid-term Business Plan](#)  
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→ [Overseas AP Business](#)  
P48-49

→ [Expansion of production capacity for inner windows](#)  
P43

→ [DX Promotion](#)  
P41

→ [Labor-saving in installation work](#)  
P54

implemented price revisions. Operating income was 17.8 billion yen, or 103% of the previous year's level, thanks to strong growth in the overseas AP business, marking the first time in four years that both revenues and profits have increased.

Currently, demand for remodeling and renovation is rapidly increasing due to the "Housing Energy Conservation 2023 Campaign," a subsidy scheme to strengthen support for energy conservation in housing through collaboration between three ministries: the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment. Delivery delays have occurred due to an unexpected surge in order volumes, and we apologize for the inconvenience caused to our customers and business partners. Currently, we are tackling the urgent issue of expanding our production capacity by adding equipment for glass and remodeling products such as inner windows.

Meanwhile, the manufacturing sites are responding to the sudden demand by changing their work schedules, working overtime, and working on holidays. If this continues, we will not

be able to avoid a decline in employee engagement. In addition to promoting labor savings through automation equipment, we will take every possible measure, including outsourcing assembly operations, to meet demand while creating an environment in which employees can work comfortably and feel fulfilled.

Looking to FY2023 and beyond, further material price hikes are expected due to such factors as increased demand for materials in China. There may also be steep rises in electricity prices and labor shortages in the logistics and construction industries. We will assess the situation and take measures as appropriate. To address the labor shortage in the logistics industry, which has been called the "2024 problem," we have a plan to stock products in locations close to where they are needed and transport them to sites in a state close to that of finished products. Internally, we will focus on training engineers while increasing the number of mid-career hires in order to acquire talented engineers in design and installation management.

### YKK AP's strength lies in its people. Pursuing evolution under the philosophy of the "Cycle of Goodness"

I believe that our greatest strength lies in the character of our employees. We are a group of people who can act in accordance with the "Cycle of Goodness" philosophy – that is, the spirit of rendering benefit to others. This is demonstrated by the fact that our Purpose, "We Build a Better Society Through Architectural Products," developed by our employees in 2021, shares a common foundation with the "Cycle of Goodness." As mentioned at the beginning of this section, I have been able to improve our results by solving the issues of our business partners. I am of the firm belief that the "Cycle of Goodness" provides us with a competitive advantage.

Accordingly, human resource development is one of our key

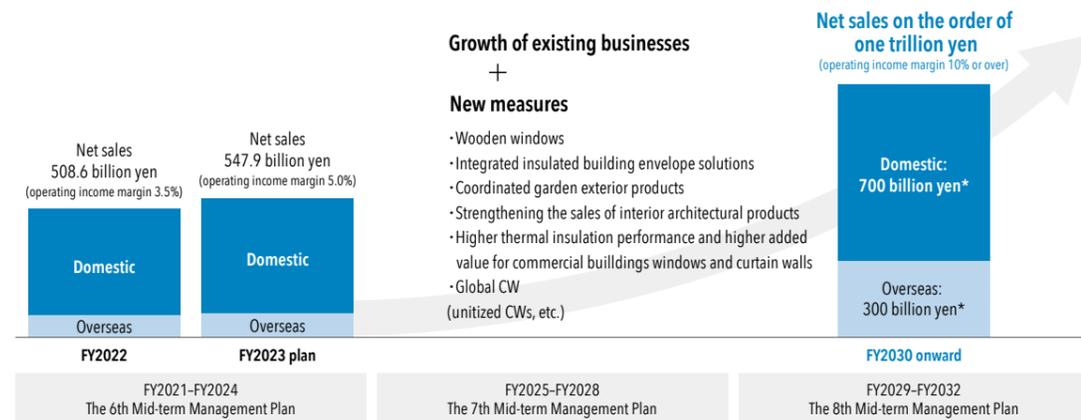
priorities. To enable employees to feel fulfilled and fully demonstrate their abilities, in addition to the aforementioned labor-saving measures at work sites, we are proactively reviewing our salary structure and expanding position and qualification allowances.

Efforts to develop human resources across departments have also begun, led by the Chief Human Resources Officer (CHRO), a position established in 2021. We invite ideas for new businesses from within the company, and employees who come up with innovative and promising ideas are asked to work on the actual launch of the business.

The next stage is "Evolution." Together with our diverse workforce, we will move forward to become a global leading company.

- [YKK philosophy – the "Cycle of Goodness"](#) P4
- [Open call for new business themes and promotion leaders](#) P32
- [Purpose](#) P5
- [Human resources strategy](#) P31

### Targets set in "Evolution 2030"



\*External sales

- [Evolution 2030](#) P7
- [Rate of sales from overseas businesses](#) P56

- [Smart factory](#) P41



President Representative Director

### Akira Uozu

Joined YKK AP in 1985. Since joining the company, he has been engaged in architectural products sales. After serving as Vice President and General Manager of the Sales Division's Window Business Planning Department, Head of the Residential Business Division, Head of the Sales Division, and Director and Executive Vice President for International Business, he has been in his current position since April 2023.

### Message from the Financial Officer

## Building a foundation for growth through mid- to long-term strategic investment

### Maximizing capital efficiency to strengthen financial base

For YKK AP to continue to grow, it must respond flexibly to the changing times through appropriate investment and cash flow management. When making decisions about whether or not to invest large amounts of capital, we place importance on the returns that can be obtained over the medium to long term. Therefore, we are focusing on return on assets (ROA) as a financial indicator, with an indicator of 6-7% (3.5% in FY2022). We conduct constant reviews to ensure that we are making investments that will lead to sustainable increases in corporate value.

Profitability as a percentage of net sales is an important factor in improving ROA. As such, we require the managers of each business to consciously improve their operating income margins. We will subdivide each business into smaller segments to increase their respective earning power. We will set KPIs to achieve an operating income margin of 5% for all businesses first, and in the future, an operating income margin of 10% for the entire company.

As strategic investments that anticipate future growth, we are also mindful of the growth rate of each individual field. Over the last decade or so, we have increased our domestic market share by investing aggressively in our window business. Going forward, we will invest capital in areas such as exteriors and interiors, where there is significant room for expansion.

In addition, under our vision "Evolution 2030," we aim to increase the proportion of our sales generated from overseas business from 17% to 30%. To achieve this goal, we envision a scenario in which Japan first takes the lead in encouraging independence, followed by each company growing through their own unique strategies that take regional characteristics into account.

### Increasing corporate value through offensive and defensive investments

Our capital investment plan for FY2023 is 50.3 billion yen. In order to make the most of this capital investment, the largest in our history, I believe it is also important to standardize our operations and improve our information infrastructure. By harnessing centralized data, and applying it to the deployment of smart factories and the improvement of services for customers, we will further step up the pace of growth. I believe



Director and Executive Vice President, General & Administration

### Kosuke Iwabuchi

that the centralization of information will also expedite DX and enable swift offensive investment. This enhanced business management infrastructure will also allow for the speedy launch of new businesses.

Meanwhile, the standardization of operations and the development of an information infrastructure will also make operations more visible, which will strengthen internal controls and at the same time help maintain the corporate brand.

As a manufacturer, it is essential for us to invest not only in equipment but also in the people who make that equipment function. By investing in equipment and human resources and developing the infrastructure in parallel, we will encourage further growth in corporate value. "We will develop a long-term investment plan by backcasting, also assuming that we will stop investing if we do not see a return, and make decisions based on data while conducting repeated empirical testing." With this approach, we aim to become a company with net sales of one trillion yen, as indicated in "Evolution 2030." We also place great importance on environmental issues, and we expect to make cumulative sustainability-related investments of 50 billion yen over the eight-year period from 2023 to 2030 to achieve our goal of becoming carbon neutral by 2040, among others.

### FY2023 Investment Plan (based on orders)

		Unit: 100 million yen	
Nature of investment		FY2022 (Results)	FY2023 (Plan)
Japan	Increase production capacity and support new products	60	101
	Streamlining support	44	64
	Digital-related	31	55
	Sustainability-related	29	38
	YKK AP 3D Building, Architectural Products Technology Center (provisional name), etc.	—	76
	Infrastructure development, etc.	36	41
Total		201	378
Overseas	U.S.A.: Increase production capacity, streamlining support, etc.	120	63
	Indonesia, India, etc.: Increase production capacity, streamlining support, etc.	15	61
Total		337	503

Difference from the previous year +166

# Our History of Value Creation

The AP business began in 1959, leveraging our knowledge of aluminum materials acquired through fastener manufacturing. Since then, we have continued to develop and supply products that meet customer needs in every era and also provide new value.

## 1957-1989

Architectural products business begins  
Widespread adoption of aluminum sashes through mass production



Aluminum extruder installed in 1959

Yoshida Shoji Co., Ltd., the company that would eventually become YKK AP, established in 1957 to undertake the sales and exports of fasteners manufactured by Yoshida Kogyo K.K. (now YKK). In 1959, the company began aluminum casting and extrusion operations, marking the beginning of YKK Group's involvement with architectural products. In 1966, the company launched sales of the residential aluminum product "High Sash." This helped to popularize aluminum sashes, which, thanks to the ease of processing and mass production, could meet the large-volume residential demand of the high economic growth period. Product development was also greatly expanded.

- 1959 Aluminum casting and extrusion work begin
- 1961 Manufacture and sales of interior aluminum architectural products begin
- 1962 Manufacture and sales of aluminum window sashes begin
- 1976 Our first overseas affiliate, YKK Industries (Singapore) Pte. Ltd. (now YKK AP Singapore Pte Ltd), established
- 1983 Manufacture and sales of vinyl sashes begin
- 1986 First overseas plant with an integrated production system, YKK Almico Indonesia (now PT YKK AP INDONESIA), established

## 1990-2004

The founding of YKK AP  
Toward a system that responds to needs



President's inaugural press conference in May 1990

In 1990, YKK Architectural Products (abbreviated to YKK AP) was founded out of its parent company, Yoshida Shoji Co., Ltd., as the core company of the YKK Group's architectural products business. The first president, Tadahiro Yoshida (currently a corporate advisor), shifted the company from a mass-production/ mass-market product-out approach to a market-in system, which sought to respond to diversifying customer needs. In 2003, all architectural products businesses in the YKK Group were fully consolidated into one. Business expansion continued overseas and the structure of the company called YKK AP was built.

- 1990 The company is renamed YKK Architectural Products Inc. (YKK AP)
- 1990 EXIMA system sashes for commercial buildings begin
- 2002 The company is renamed YKK AP Inc.
- 2003 YKK's Architectural Products Manufacturing Group is integrated into YKK AP Inc. and the architectural products business of the YKK Group becomes a fully integrated organization
- 2003 Sales of SYSTEMA series of system sashes for non-residential buildings begin

## 2005-2010

From sash manufacturer to window manufacturer  
Improving Japan's windows



The APW 330, launched in 2009

The company set out to transform itself from a sash manufacturer to a window manufacturer. It turned away from its business supplying knockdown style sashes and began to provide finished window products. The window business brand APW series was launched, driven by a desire to improve windows in Japan. 2009 saw the launch of the APW 330 vinyl window, which helped spread awareness of these products throughout Japan. In 2008, YKK AP Facade Pte. Ltd. was established in Singapore, marking the group's definitive move into the facade business.

- 2005 Proclamation to promote insulating glass for residential windows
- 2006 The window business brand APW series is launched
- 2007 Value Verification Center established
- 2008 YKK AP Facade PTE. LTD. established
- 2009 Sales of APW 330 vinyl windows begin

## 2011-2022

A company committed to products and manufacturing  
An ongoing commitment to monozukuri



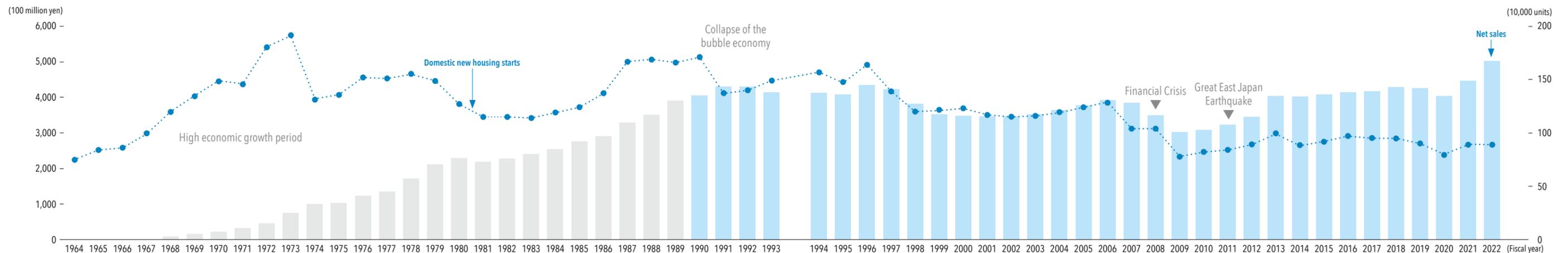
The Saitama MADO (window) Plant, which began operations in 2011

In 2011, YKK AP's second president, Hidemitsu Hori, demonstrated our adherence to monozukuri under the policy of "a company committed to products and manufacturing." We further promoted the window business through our dedicated "MADO (window) Plant" and awareness-raising activities about vinyl windows, expanded our exterior and remodeling product lineup, and strengthened the engineering capabilities of the commercial products business to expand our market share. We also established a structure to adapt to a drastically changing society, including the reorganization of our overseas affiliates in FY2020.

- 2011 Operations begin at the Saitama MADO (window) Plant
- 2012 Sales of the Venato electronic smart door begin
- 2014 Sales of the LUCIAS series of exterior products begin
- 2016 YKK AP R&D Center is opened
- 2020 Reorganized overseas AP business and integrated capital relations and business operations of overseas affiliated companies into YKK AP
- 2021 Part of the YKK Machinery & Engineering Group is transferred and the "Machinery & Engineering Department" established

## 2023- Become a Global Leading Company Through the Evolution of Architectural Products

When Akira Uozu assumed the office of president in 2023, a review was conducted of "how we seek to be in 2030 and how we ought to be," and the vision "Evolution 2030" put forth the goal of "Become a Global Leading Company Through the Evolution of Architectural Products."



# The Value Creation Process

Purpose → P5

We Build a Better Society Through Architectural Products

*We Build a Better Society Through Architectural Products*

Vision

Evolution 2030 → P7

Become a Global Leading Company Through the Evolution of Architectural Products

## Opportunities and Risks

- Health and Comfort/Safety and Security
- Climate Change and Disaster Countermeasures
- Demographics
- Ecosystem Conservation and Resource Recycling



## Materiality → P20

Human resources to support sustainable growth

- Diversity & inclusion
- Fullfilling workplace environment
- Development and training of human resources to create new value
- Respect for human rights

“Monozukuri” to support resolution of social issues through products and competitiveness

- Co-creation with stakeholders
- Generating innovation
- Products/services which continue to solve social issues

“Trust/Reliance” to fulfill social responsibility

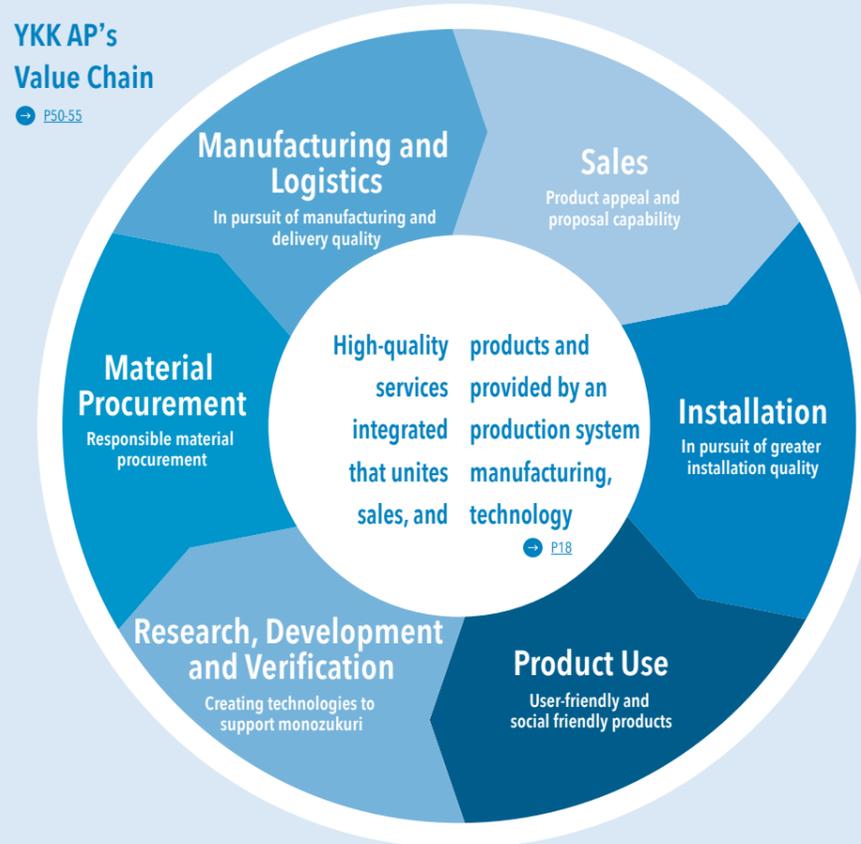
- Fair business practices
- Resilient business foundation
- Co-existence with the environment



## Management capital → P16-17



## YKK AP's Value Chain → P50-55



The 6th Mid-term Business Policy Providing Social Value through Products and Realizing Manufacturing Reform → P21-23

## YKK AP's Business Segments

- Residential Business
- Commercial Business
- Exterior Business
- Industrial Products Business → P42-49
- Overseas AP Business

## Foundations Supporting our Business

- Corporate Governance
- Human Rights and Human Resources
- Compliance
- Risk Management → P24-41
- Environmental Management
- DX Promotion

## Outcomes

- [Customers]** Products, solutions and services that meet the demands of society regarding safety, security, energy conservation, health, easy installation, disaster prevention, ventilation, and more, based on a shift to high thermal insulation performance and higher added value
- [Society]** Building mechanisms for generating profits together with business partners and regions, as well as solving environmental issues throughout the value chain, such as decarbonization and realization of a recycling-oriented society
- [Employees]** A company that is chosen by a wide variety of individuals for its management that creates jobs, as well as for the growth and fulfillment that it offers to each employee with their diverse skills and experience through the creation of a comfortable work environment, investment in employees, and opportunities for growth



## Output

Net sales	508.6 billion yen
Operating income	17.8 billion yen
Rate of sustainable product sales	37.8%
Sustainability-related investment (Japan)	2.9 billion yen
Greenhouse gas emissions (Scopes 1 and 2)	304 kt CO <sub>2</sub>
Greenhouse gas emissions (Scope 3)	1,737 kt CO <sub>2</sub>
Aluminum: Recycled external products (Japan) *1	27%
Vinyl: Recycled internal products (Japan) *2	28%
Employee engagement (Japan)	49%

\*1 Ratio of input of recycled materials from the market to the input of aluminum raw materials  
\*2 Rate of internal reuse of internally generated vinyl scraps

\* Results as of March 31, 2023 or FY2022 unless otherwise noted, scope of coverage is YKK AP Group (Japan + overseas)

## Principles that Support the Value Creation Process → P4-5

YKK Philosophy — Cycle of Goodness®: “No one prospers without rendering benefit to others.”



Management Principle: “YKK seeks corporate value of higher significance.”



# Management Capital as a Base for Value Creation

YKK takes as its Purpose “We Build a Better Society Through Architectural Products.”

These six types of capital are the source of this cycle of providing value to customers, society, and employees through corporate activities that create high quality products and services.

We aim to achieve sustainable growth by strategically investing capital while assessing business opportunities and risks.

## Financial Capital



Equity ratio **57.9%**

Net assets: 266.0 billion yen / Total assets: 455.8 billion yen

### Financial foundations supporting our business

Despite the overall increase in operating income in FY2022, we will endeavor to improve profitability through continued price revisions and manufacturing cost reductions to address surging material prices and related issues. To realize our “Evolution 2030” vision, which aims to achieve net sales on the order of one trillion yen, we plan to allocate business resources first to information and other management infrastructure that forms the foundation of our corporate activities, and then to facilities and human resources. While keeping in mind business indicators and the growth rates of individual businesses, we will also continue to pursue capital efficiency.

## Human Capital



Employees in Japan: **12,802**

Employees overseas: **4,341**

### “Forest Organization” with a shared corporate philosophy

Based on the idea of “autonomy and coexistence,” we work to create systems and environments in which each and every employee can demonstrate their full potential. The goal is to create a “Forest Organization,” a company in which every employee has a consciousness of being a manager, and grows strongly together as a group, like a forest that is made up of individual trees. To improve employee engagement, which is the source of value creation, we will pursue the design of systems and the development of a fulfilling and pleasant working environment that enable a diverse range of personnel to play an active role.

## Social and Relational Capital



Japan business sites: **195**

Overseas business sites: **11** countries/regions

Affiliated companies – Japan: 5 Overseas: 17 (as of August 1, 2023)

### Co-creation relationships based on trust and reliance with stakeholders

We work with all stakeholders, including employees, customers, business partners, and local communities, to continue being a company that is trusted by the community and loved by society. We provide opportunities for various forms of dialogue and co-creation to improve our workplaces and operations, as well as the quality of our products. In addition, we are engaged in industry-government-academia-private sector partnership to develop recycling technologies and mechanisms for vinyl and aluminum materials.

Information on stakeholder communication is available on our website. <https://www.ykkap.co.jp/company/jp/sustainability/stakeholder/>

→ Purpose P5

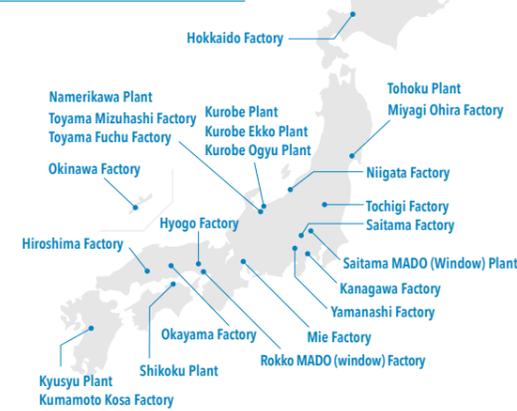
→ Evolution 2030 P7

→ Message from the Financial Officer P11

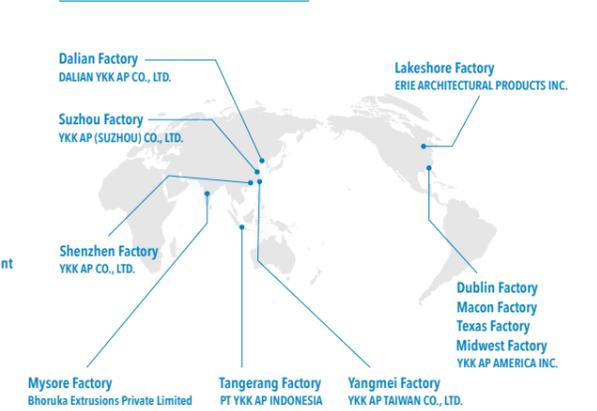
→ Human resources strategy P31-32

→ Recycling of vinyl and aluminum materials P38-40

### Manufacturing sites in Japan



### Overseas manufacturing sites



## Manufacturing Capital



Manufacturing sites – Japan: **24** Overseas: **11**

Manufacturing capital investment: **13.8** billion yen

→ Integrated production system P18

→ Smart factory P41

## Natural Capital



Energy consumption: **161,000** kl (crude oil equivalent)

Water use: 8.9 million m<sup>3</sup>

Raw materials – aluminum: 125 kt, vinyl: 22 kt

→ Environmental Management P36-40

→ Evolution 2030 P7

## Intellectual Capital



Global R&D organization: **3** sites

Research and development expenses: **9.3** billion yen

Patents held: 1,418

→ Research, development and verification P50

### Technology capabilities to support an integrated production system from raw material production to shipping and delivery

YKK AP manufactures products using integrated production at domestic and overseas sites, and has established a manufacturing and supply system rooted in various countries and regions under the basic principle of manufacturing close to where demand is found. In addition, we are working to enhance our technological competitiveness through machinery engineering technology used to develop and manufacture production equipment for our products. We are also stepping up our efforts in DX promotion as well as research and development into AI, robotics and other technologies for realizing smart factories.

### Creating environmental value at all stages of the lifecycle

Aiming to leave a better society/environment for the next generation, we are taking on the challenge of creating new value and achieving zero environmental burden, through technical innovation. Along with the conservation and effective use of natural capital, we are working to create environmental value and solve environmental issues at all stages of the product lifecycle, from research and development to manufacturing, logistics, installation, use, and disposal. Under the “Evolution 2030” vision, YKK AP aims to reduce its own CO<sub>2</sub> emissions by 80% by FY2030 and by 100% by FY2040 (both relative to FY2013), and we will strengthen our efforts to achieve these goals.

### Creating technology through the challenge of solving social issues

#### Kurobe, YKK AP’s technology headquarters

Home to three technical facilities of the YKK AP R&D Center, the Value Verification Center, and the Partners Support Studio, Kurobe City in Toyama Prefecture is positioned as YKK AP’s technology headquarters. R&D centers are also located in Germany and Indonesia to conduct research, development, and verification on a global basis. Furthermore, we are putting our efforts into strategic management and application of intellectual assets as well as training and development of employees, with the aim of improving our competitiveness and brand value through patent applications and ownership of patent rights.

\* Results as of March 31, 2023 or FY2022 unless otherwise noted, scope of coverage is YKK AP Group (Japan + overseas)

# Solving Social Issues through our Strengths in Monozukuri and our Products

YKK AP continues to provide value to customers, society, and its employees through high-quality products and services based on its integrated production system, while proactively addressing social and environmental issues.

## Integrated Production System

YKK AP's strength lies in its "integrated production system" business model, in which the company itself handles everything from materials, parts, and production equipment to processing and assembly.

The glass used for our vinyl windows and other core products is procured as raw sheets and processed in-house. In addition, all manufacturing processes, from smelting the raw metal for aluminum and blending the base materials for vinyl, are carried out in-house at our domestic and overseas manufacturing sites.

Even the development and manufacture of parts, which constitute the backbone of our products, is carried out in-house. We build on our technological development capabilities, including elemental technologies, to produce metal and plastic functional parts such as door rollers, screws, and netting for screens. We also have various types of test and evaluation functions, ensuring more reliable quality of parts.

In addition, an in-house division called Machinery and Engineering is responsible for the development and manufacture of equipment for making our products. We are working to further enhance our technical competitiveness through seamless and rapid collaboration between the Machinery and Engineering Department, the Research and Development Division, and the Manufacturing Division.

As part of the "Realization of Manufacturing Reform," in the 6th Mid-term Business Policy, we will also pursue a shift to smart factories. We are building new city-based, unattended production lines that do not rely on human labor, making full use of robots as well as AI and other digital technologies.

We believe that our insistence on integrated production enables us to develop technology quickly, control costs throughout the supply chain, and guarantee reliable quality.

### The cornerstone of YKK AP's monozukuri: the Integrated Production System

**Materials**

We produce materials in-house: for aluminum, this involves everything from melting to extrusion and surface treatment, and for resin, from raw material blending to extrusion.



**High-performance glass**

We process our own high-performance and high-functioning double and triple insulating glass.





**Components**

YKK AP produces everything in-house, from operating and functional components to screws and screen netting.



**Production equipment**

YKK AP has developed its own manufacturing equipment, production lines, and process control systems, etc., and has deployed them in the company's plants in Japan and overseas.



**Processing, assembling, packaging**

Our APW vinyl window series products are produced in our carefully controlled plants, from preparing the glass to manufacturing the components and assembling the windows, thereby ensuring high performance.

- [Integrated production system](#) P52
- [The 6th Mid-term Business Policy](#) P21
- [DX Promotion](#) P41

# Products and services to address social issues

As YKK AP pursues sustainability management, it is identifying issues and developing technologies while staying attuned to the needs of its various customers in Japan and overseas. The 6th Mid-term Business Policy calls for "Providing Social Value through Products and Realizing Manufacturing Reform," and we have set the "rate of sustainable product sales" as a key

indicator. The social value that YKK AP provides can be categorized into "energy conservation," "easy installation," "disaster prevention/mitigation," "safety/security," and "health/hygiene," and we are engaged in business activities that contribute to a sustainable society by developing a wide range of sustainable products that enhance these types of value.

## Energy conservation

We are developing products that can contribute to improving the energy-saving performance of buildings. We are developing products with thermal insulation performance that meets the energy-saving standards set by various regions in Japan and overseas.



**APW vinyl windows series**  
A window series using vinyl with high thermal insulation performance for the frame.



**LD series (China)**  
A series of aluminum profile thermal insulation windows with high thermal insulation performance that can be used in a wide range of areas, from eastern to northern and western China.

## Easy installation

We are developing products that shorten installation time, do not involve specific skills or hazards, and are safe to install.



**No-weld installation**  
A new flame-free sash installation method that replaces the conventional welding method by filling with mortar.



**Kantan Door Remo series**  
A door series that allows new products to be installed over the existing frame without breaking the wall.

## Disaster prevention/mitigation

We have a lineup of products that reduce damage to buildings, indoor environments, and surrounding environments caused by wind, rain (water), snow, lightning, and other natural phenomena.



**GPort Pro Series**  
Carport series with industry-leading snow and wind resistance to prepare for increasingly severe natural disasters.



**YRB-A (Taiwan)**  
High water-tightness sashes developed as a core product for Taiwan, where typhoon damage is common.



**ProTek® (U.S.A.)**  
Hurricane and explosion-proof products targeted mainly at commercial facilities in the U.S.A.

## Safety/Security

We are committed to developing products with higher safety performance by employing functions and technologies that work effectively against dislocation, falls, pinching, collisions, abrasions, catching, locking-in, catching fire, criminal activity and more.



**Lucias balconies**  
Balconies with handrails to prevent children from falling

## Health/Hygiene

We develop products that contribute to improving the quality of the indoor environment and creating a hygienic lifestyle.



**Natural ventilation windows (Balance Way)**  
The grid itself is balanced to provide efficient ventilation.

# Materiality and the 6th Mid-term Management Plan

To drive YKK AP's sustained growth, we have identified materiality (priority issues) based on our Purpose. We will promote materiality through the implementation of the 6th Mid-term Management Plan (FY2021-FY2024).

## Materiality

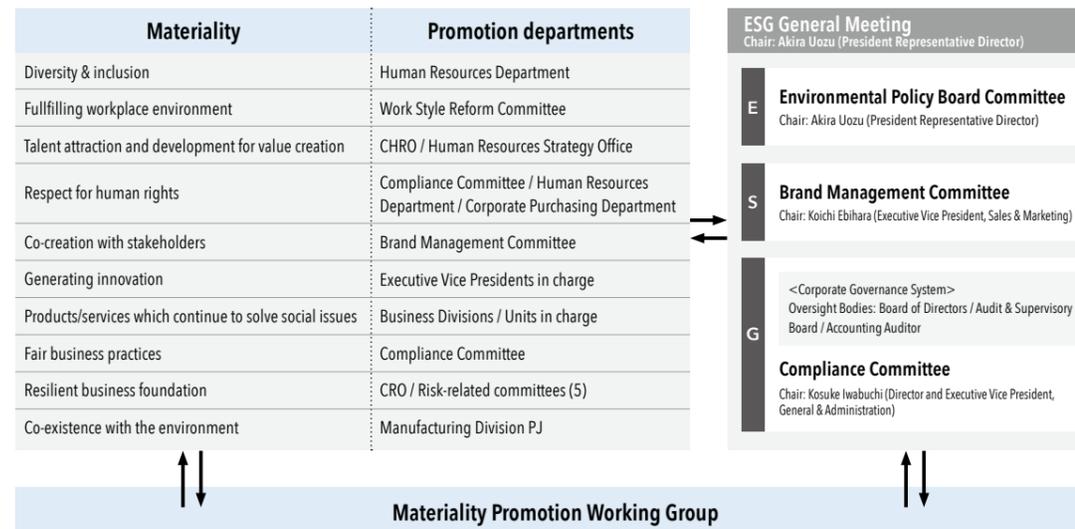
To drive YKK AP's sustained growth, we have identified materiality (priority issues) for FY2021 based on our Purpose. We have established a system for promoting materiality and are further advancing specific initiatives by setting KPIs.

Materiality		
<p><b>"Human Resource" to support sustainable growth</b></p> <ul style="list-style-type: none"> <li>● Diversity &amp; inclusion</li> <li>● Fulfilling workplace environment</li> <li>● Talent attraction and development for value creation</li> <li>● Respect for human rights</li> </ul>	<p><b>"Monozukuri" to support resolution of social issues through products and competitiveness</b></p> <ul style="list-style-type: none"> <li>● Co-creation with stakeholders</li> <li>● Generating innovation</li> <li>● Products/services which continue to solve social issues</li> </ul>	<p><b>"Trust/Reliance" to fulfill social responsibility</b></p> <ul style="list-style-type: none"> <li>● Fair business practices</li> <li>● Resilient business foundation</li> <li>● Co-existence with the environment</li> </ul>

### Materiality promotion system

We have established a promotion department for each materiality and are stepping up our initiatives accordingly. Furthermore, the ESG General Meeting, headed by the President, consists of the Environmental Policy Board Committee that takes the lead on environmental topics, the Brand Management Committee that

handles social topics, and the Compliance Committee, which handles governance. Each is chaired by the President or an Executive Vice President. The "Materiality Promotion Working Group," which reports directly to the ESG General Meeting, conducts materiality efforts and manages KPIs in cooperation with the ESG General Meeting and the promotion department for each materiality.



→ The approach and process for identifying materiality is described on our website. <https://www.ykkap.co.jp/company/en/sustainability/materiality/>

# The 6th Mid-term Management Plan

## The YKK Group 6th Mid-term Management Vision

### Technology Oriented Value Creation

● **Creativity to Realize a Sustainable Society** ..... Product appeal & proposal capability / Technology & manufacturing capability / Diverse human assets

## The 6th Mid-term Business Policy

### Providing Social Value through Products and Realizing Manufacturing Reform

● **Providing Social Value through Products** ..... Providing products that meet the demands of society, including safety, security, energy conservation, easy installation, health, disaster prevention, ventilation, and others

● **Realization of Manufacturing Reform** ..... Manufacturing reform by enhancing technological capabilities (Machinery and Engineering (KOKI) integration), platforming & smart factorization / Developing technologies for achieving carbon neutrality

### The 6th Mid-term Business Plan

The 6th Mid-term Management Plan, which began in FY2021, takes as its core the purpose "We Build a Better Society Through Architectural Products." The 6th Mid-term Business Policy, "Providing Social Value through Products and Realizing Manufacturing Reform," has been developed as a policy to fulfill this purpose.

In FY2022, we achieved net sales of 508.6 billion yen, a record high for the second year in a row, thanks to the promotion of

- [Purpose P5](#)
- [3-ministry subsidy scheme P43,45](#)
- [Saitama Factory new building P45](#)
- [New plant for manufacturing residential vinyl windows \(U.S.A.\) P49](#)
- [Message from the Financial Officer P11](#)
- [New plant for manufacturing residential vinyl windows \(U.S.A.\) P49](#)

Unit: 100 million yen

	FY2021 (Results)	FY2022 (Results)	FY2023 (Plan)	FY2024 (Plan)
<b>Net sales</b>	4,463	5,086	5,479	5,440
<b>Operating income</b>	173	178	276	386
<b>Operating income margin</b>	3.9%	3.5%	5.0%	7.1%

\*The FY2024 plan is the mid-term plan developed in FY2021.

### The 6th Mid-term Investment Plan

In order to further grow our business both domestically and internationally, we have drawn up a record-breaking investment plan for the 6th Mid-term Management Plan. With respect to

Unit: 100 million yen

	FY2021 (Results)	FY2022 (Results)	FY2023 (Plan)	FY2024 (Plan)
<b>Japan</b>	226	201	378	300
<b>Overseas</b>	37	135	125	92
<b>Total</b>	264	337	503	392

\*Note: Based on orders

\*The FY2024 plan is the mid-term plan developed in FY2021.

high thermal insulation windows and strengthening of proposals in the commercial building renovation field in Japan, as well as significant growth both in Japan and overseas, especially in architectural products for commercial buildings in North America. Operating income was affected by surging material prices and higher SG&A expenses in Japan, but increased sales and price revisions overseas led to an overall increase.

In Japan in FY2023, we will enhance production equipment for remodeling products and glass, for which demand is expected to rise due to the three ministry-supported subsidy scheme. In the commercial business, we will further strengthen our competitiveness in the Tokyo metropolitan area by commencing operations at the new Saitama Factory building. In North America, we will strengthen our production and supply systems by establishing supply bases for architectural products for commercial buildings and commencing operations at a new factory producing vinyl windows for residential use.

capital investment plans, in addition to investments necessary for business continuity, such as for replacement of aging equipment and health and safety reasons, we plan to advance aggressive production expansion and rationalization investments where the expected returns ensure the investment's rationality.

In FY2023, we plan to invest a record 50.3 billion yen. In Japan, this will mainly be allocated to increased production, new product support, and digital-related activities, and overseas, for construction of a new plant in the U.S.A., with the aim of achieving sustainable business growth and early generation of investment benefits.

The 6th Mid-term Materiality Targets

Extent of Coverage  
 ◇1: YKK AP (non-consolidated)  
 ◇2: YKK AP Group (Japan)  
 ◇3: YKK AP Group (Japan and overseas)

Materiality	Initiatives	Indicators	FY2021 (Results)	FY2022 (Results)	FY2023 (Targets)	FY2024 (Targets)	Related SDGs	
Human resources to support sustainable growth	Diversity & inclusion	Promote an inclusive corporate culture where employees with a diverse range of skills and experiences respect one another and work together	Number of women in management positions ◇1	113	122	133	140	
		Rate of persons with disabilities among employees ◇1	2.29%	2.32%	2.35%	2.50%		
		Ratio of men's to women's wages (average) ◇1 * Parentheses indicate the ratio of men's to women's wages for senior section managers	68.6% (86.4%)	69.7% (87.7%)	70.0%	71.0%		
	Establishment of a fulfilling working environment	Develop a fulfilling workplace environment in which each employee can thrive with motivation and demonstrate his/her best performance	Rate of employees who take childcare leave (men) ◇1	53.2%	73.2%	Over 50%	Over 50%	
			Employee engagement ◇1	51%	49%	65%	70%	
	Development and training of human resources to create new value	Attract, train, and promote next-generation leaders and invest in the necessary talent for sustainable growth	Number of employees who obtained qualifications eligible for public qualification incentives (cumulative total of employees) ◇1	15,714	17,083	18,500	20,000	
			"Value Creation Academy," the next-generation leader development program ◇1 ● Number of participants *Figures in parentheses indicate cumulative number of participants ● Number of corporate officers appointed (cumulative total)	9 (195) 29	9 (204) 32	9 (213) -	9 (222) -	
			Number of employees dispatched by the company to obtain degrees (PhD, MBA, MOT) ◇1	13	17	24	27	
	Respect for human rights	As part of corporate social responsibility, give consideration to human rights not only in the company itself, but also in the supply chain and other areas associated with the company	Enforcement of the YKK AP Human Rights Policy in business activities in each country/region Expand and enhance content of human rights and harassment training					
			Number of companies that we have concluded an agreement with regarding the basic transaction principles (cumulative total) ◇1	821	1,184	1,184	1,184	
Monozukuri to support resolution of social issues through products and competitiveness	Co-creation with stakeholders	Continue to create value through active dialogue with our key stakeholders: customers, society, and employees	Customers: Expansion of technical proposal and training options for domestic and overseas business partners Society: Promote activities that link customer feedback to the development and improvement of products and services and the provision of information Employees: Promote initiatives to gather a wide range of employee ideas and apply them to our business					
	Generating innovation	Promote innovation in business concepts and production/business processes from a medium- to long-term perspective for sustainable growth	Establish programs to develop and create innovative human resources ● Establish AP innovation programs and systems to accelerate and promote creation of new business ● Develop a foundation for fostering an innovative organizational culture and developing innovative human resources					
	Products/services which continue to solve social issues	Create new value and contribute to the sustainable development of society by taking on the challenge of solving social issues through our products and services	Rate of high thermal insulation window use (For single-family houses) ◇2	70%	75%	84%	90%	
			Rate of vinyl window use (For single-family houses) ◇2	31%	31%	35%	40%	
			Rate of sustainable product sales ◇3	38.4%	37.8%	40.6%	39.1%	
Fair business practices	Conduct business activities ethically and with integrity by ensuring compliance with laws, regulations, and social norms under a global governance system	Number of sites implementing YKK Global Criteria of Compliance (YGCC) ◇3 *Number in parentheses indicates number of sites where internal audits have been conducted	55 (20)	56 (27)	57 (27)	57 (28)		
		Expand and enhance content of compliance training ● Conduct compliance video training and e-learning for all employees						
Trust/reliance to fulfill responsibilities to society	Increase resilience through risk management that enhances management transparency and honest and fair corporate governance, in addition to responding to unforeseen events	Strengthen the CRO-led risk management system and speed up the response to emergencies Review BCP on an all-hazards basis ● Responses to infectious diseases, major natural disasters, supply chain interruptions, cyber incidents, etc. ● Recovery and operation through reliable management after the BCP is activated						
		Co-existence with the environment	Contribute to reducing environmental impact and mitigating and adapting to climate change by promoting a decarbonized, recycling-based society and expanding sales of environmentally friendly products	YKK AP CO <sub>2</sub> emissions ◇3	325 kt CO <sub>2</sub>	304 kt CO <sub>2</sub>		288 kt CO <sub>2</sub>
Waste output (Manufacturing sites) ◇3 * Figures in parentheses represent units of intensity	15.9 kt (3.57 t/100 million yen)	15.4 kt (3.03 t/100 million yen)	14.3 kt (2.61 t/100 million yen)	13.9 kt (2.56 t/100 million yen)				
Water consumption (Manufacturing sites) ◇3 * Figures in parentheses represent units of intensity	9.8 million m <sup>3</sup> (2,200 m <sup>3</sup> /100 million yen)	8.9 million m <sup>3</sup> (1,750 m <sup>3</sup> /100 million yen)	8.6 million m <sup>3</sup> (1,580 m <sup>3</sup> /100 million yen)	8.5 million m <sup>3</sup> (1,570 m <sup>3</sup> /100 million yen)				

\* Sustainable products are defined as architectural products that contribute to achieving the SDGs by solving priority social issues such as energy conservation, easy-installation, disaster prevention/mitigation, safety/security, and health/hygiene  
 \*The FY2024 targets are the mid-term targets developed in FY2021.

# Corporate Governance

Under the philosophy of the "Cycle of Goodness," we strive to enhance our corporate governance system in an effort to further enrich our corporate value.

Based on an organizational system in which the Board of Directors serves to make decisions on important matters, such as the company's management policy, and serves an oversight function, while the Audit & Supervisory Board serves as the company's auditing organization, we have adopted an Operating Officer System, a framework that helps the company undertake the execution of business and operations.



Chairman of the Board  
Chairman Representative Director  
**Hidemitsu Hori**

Message from the Chairman of the Board

## Toward a Board of Directors that Appropriately Assesses Risks and Opportunities and Encourages Creation and Exploration

YKK AP has established a Board of Directors as a body to oversee the implementation of strategies and to make corporate decisions. The Board deliberates and makes decisions on investment strategies for business expansion and human resource strategies. To ensure transparency and objectivity, the Board of Directors includes members from YKK, and external experts are added to the Audit & Supervisory Board in order to address increasingly complex compliance and risk issues. With regard to important matters, in order to ensure that decisions can be made through active discussion, the points for discussion are clarified at the Management Strategy Council before being brought to the Board of Directors.

One aspect of materiality emphasizes employee engagement at manufacturing sites. In general, discussions about work styles tend to focus on office workers, leaving employees

working in plants and factories out of the picture. However, as a manufacturing company, our employees on the shop floor are our lifeline. I know through my own roundtable discussions that each of them is a talented individual with outstanding technical skills and knowledge. We are in the process of discussing how to provide job satisfaction.

Discussions are also underway on measures to combat climate change. In order to realize the "contribution to the global environment" set forth in President Uozu's "Evolution 2030" vision, we are considering ways to further accelerate fuel transition in Japan, such as switching to carbon neutral methane and utilizing hydrogen and ammonia, and establishing recycling technologies for discarded aluminum and vinyl.

It is also important to strengthen the Board itself. Our company has always emphasized the importance of "continuing to grow." However, now that our share of the domestic window market has exceeded 50% and net sales have reached 508.6 billion yen, it is difficult to expect the same growth as in the past. To achieve our new targets, we need to create new businesses both domestically and internationally, develop new markets, and make a giant leap forward from our current growth curve.

In the future, large acquisitions and partnerships with foreign companies may also come into consideration. I myself visit startups in Japan and abroad to explore new business opportunities, and outside knowledge is indispensable in identifying risks and opportunities. In light of this, we hope to appoint an outside director who is well versed in overseas affairs within the next one to two years. Currently, the Board of Directors is composed entirely of men, and we are considering the appointment of female directors in order to have more diverse discussions at the Board meetings in the future. We are also considering the implementation of evaluation of the Board of Directors, including the methodology.

As Chairman of the company and of the Board, I will contribute to a new vision for YKK AP.

→ [YKK philosophy – "Cycle of Goodness"](#) P4

→ [Dialog with employees](#) P32

→ [Evolution 2030](#) P7

→ [Key consolidated financial data](#) P56

→ [Directors and Board of Directors](#) P27

→ [Materiality](#) P20

→ [Corporate compliance system](#) P33

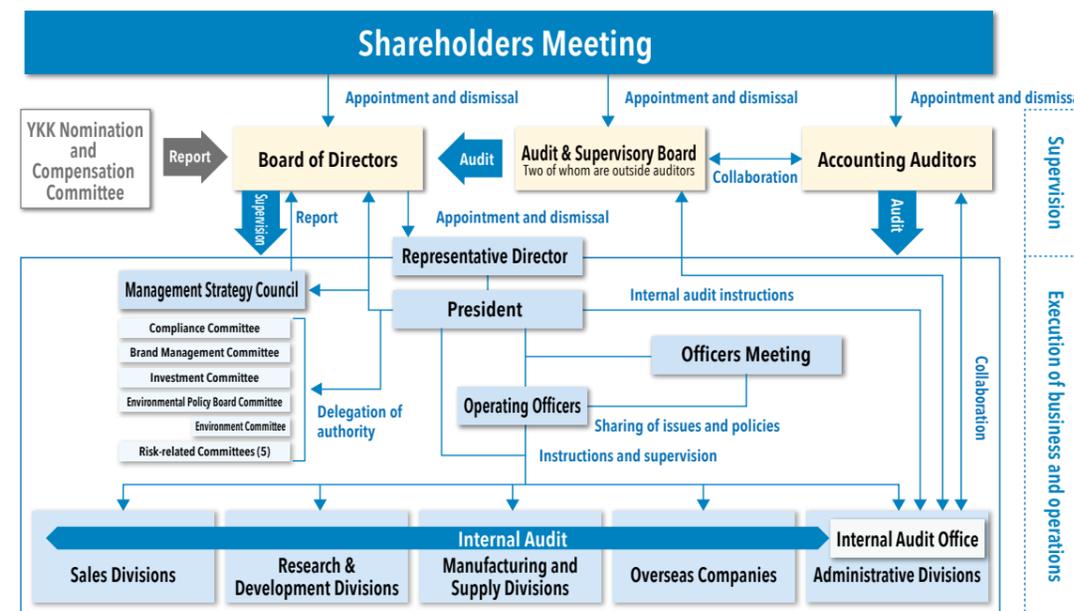
→ [Risk management system](#) P34

→ [YKK philosophy – "Cycle of Goodness"](#) P4

→ [Carbon neutrality](#) P38-39

→ [Environmental management](#) P36-37

# Corporate Governance System



**Separation of management and execution (Execution of duties by directors, Operating Officer System)**  
Directors comply with the regulations of the Board of Directors and follow the rules regarding director duties, and appropriately carry out business based on the division of duties. They regularly attend compliance training offered by lawyers, etc., and submit to the company written oaths pledging to comply with laws and regulations in performing their duties as directors.

In addition, we have introduced the Operating Officer System to ensure the faster execution of business and operations via the separation of management and execution. While directors dedicate themselves to realize total optimization, operating officers execute individual businesses and operations with responsibility and authority, in accordance with the policies resolved in the Board of Directors meeting.

## Main Committees for Executing Business/Duties

### Compliance Committee

Chair: **Kosuke Iwabuchi** (Director and Executive Vice President, General & Administration); Members: 15  
Number of meetings in FY2022: 2  
We work to improve the compliance system of our company and subsidiaries. A compliance director is appointed, and he reports to the directors and audit & supervisory board members regarding the development of the compliance system and compliance status.

### Brand Management Committee

Chair: **Koichi Ebihara** (Executive Vice President, Sales & Marketing); Members: 26  
Number of meetings in FY2022: 5  
This committee considers and formulates important policies for our company from a technical standpoint. It works to build the Company's brand, practice corporate activities based on the "Cycle of Goodness," and enhance our public outreach.

### Investment Committee

Chair: **Kimihiko Yamada** (Head of Accounting & Finance Department)  
Number of meetings in FY2022: 11  
The committee reviews and discusses investment economics calculations, costs of capital, free cash flow, and sets ICPs for promoting carbon neutrality for significant investment projects. By going through review in the committee, these can be evaluated more efficiently by the Board of Directors meeting.

### Environmental Policy Board Committee

Chair: **Akira Uozu** (President Representative Director); Members: 11  
Number of meetings in FY2022: 1

### Environment Committee

Chair: **Shunichi Matsuda** (Head of Safety & Environment Department); Members: 57  
Number of meetings in FY2022: 4  
The Environmental Policy Board Committee was established to develop our environmental policies and strategies, and to supervise the progress of our environmental measures. Also, the Environment Committee promotes the policies of business execution divisions, plans and formulates measures, and supervises their progress.

### Risk-related Committees (5)

We have appointed a Chief Risk Management Officer (CRO) to promote YKK AP's risk management. We established a Quality Committee, Trade Management Committee, Crisis Management Committee, Information Security Committee, and Technical Asset Management Committee in order to maintain and enforce regulations.

#### Quality Committee

Chair: **Yoji Abe** (Head of Quality Assurance Division); Members: 7  
Number of meetings in FY2022: 4

#### Trade Management Committee

Chair: **Tetsuya Onodera** (Head of International Division)  
Number of meetings in FY2022: 3

#### Crisis Management Committee

Chair: **Osamu Anda** (CRO); Members: 16  
Number of meetings in FY2022: 3

#### Information Security Committee

Chair: **Tetsuya Komori** (Head of IT Department); Members: 9  
Number of meetings in FY2022: 3

#### Technical Asset Management Committee

Chair: **Toshiyuki Nakaso** (Head of Fabrication Technology Department, Manufacturing Division); Members: 9  
Number of meetings in FY2022: 3

\*Number of committee members as of June 2023.

## YKK Nomination and Compensation Committee

Members: 5 (including 2 outside directors)  
 Number of meetings in FY2022: 10  
 An advisory body established within YKK and independent of YKK AP that deliberates and reports on the appointment and dismissal of directors, Audit & Supervisory Board members, operating officers, and executive specialists of YKK and YKK AP, as well as their compensation.

Message from Chair of the Nomination and Compensation Committee



Director  
 Chairman Representative Director,  
 YKK Corporation  
**Masayuki Sarumaru**

### Enhancing Governance with a Highly Independent Personnel Structure

The YKK Group has set up the Nomination and Compensation Committee in YKK as an advisory body, and its members are appointed by resolution of the YKK Board of Directors. There may not be many privately held companies that have a nomination and compensation committee. However, at the center of the YKK Group's management principle, which was set forth by Tadahiro Yoshida, the second president of YKK and founder of YKK AP, is "fairness," which forms the foundation of the Value Action Standards. The idea that it is precisely because the company is privately held that decisions should be made fairly and transparently is deeply ingrained in the Group. Accordingly, an advisory board of outside experts was established in 1998, and a Nomination and Compensation Committee was established in 2008. The reason that YKK AP

Message from a Nomination and Compensation Committee Member



Director (outside director), YKK Corporation  
 Professor Emeritus, Keio University  
 Professor Emeritus, Chubu University  
**Keinosuke Ono**

### Advancing Discussions on Governance Reform based on Expertise

I have been involved in research and educational activities and in the administration of academic organizations for 50 years at two different universities. In addition, through the graduate school of management (business school) where I worked for 40 years, I have interacted with many business executives. In this committee, I will provide opinions and discuss issues regarding governance reform in a way that reflects the expertise I have acquired through my own experience, including on issues such as increasing the number of outside directors, defining the ideal officer skills matrix, and clarifying the criteria for nominating officers and the system for determining their compensation.

does not have its own committee is to ensure that the entire Group is on the same page and that governance is effective.

The Nomination and Compensation Committee consists of at least three members, including one outside director of YKK, and currently has five members, two of whom are outside directors. To ensure independence, persons with executive responsibility are not included as members. The Nomination and Compensation Committee deliberates on the election and dismissal of directors, Audit & Supervisory Board members, operating officers, and executive specialists, as well as their compensation, and reports back to the Board of Directors.

Regarding appointments, to ensure that the Board of Directors can properly fulfill its role, we check the balance of skills possessed by directors and formulate plans to appoint appropriate personnel. Discussions are also underway regarding skills matrices and the promotion of diversity, with the goal of strengthening the Board's governance and increasing its effectiveness. When appointing directors, the Nomination and Compensation Committee deliberates and formulates proposals under the basic prerequisite that candidates understand and practice the "Cycle of Goodness" that is the Group's corporate philosophy. The Nomination and Compensation Committee also held repeated discussions of this spring's change of president, and formulated a proposal to appoint Akira Uozu to the position.

Compensation, meanwhile, is considered based on the size and status of the business, while also referring to industry standards. In doing so, consideration is also given to changes to the employee salary system.



Director (outside director), YKK Corporation  
 Professor, Hitotsubashi University Graduate School  
**Erika Okada**

### I Hope to Give Advice as a Witness to Proper Process

I want YKK AP to be a company that creates new products and services with high potential for the future, leading to the creation of value for buildings. To this end, a long-term growth strategy will be important. I see my primary role as an outside committee member as being a witness to proper processes for nomination and compensation decisions, and I intend to provide advice on these matters as needed.

→ [YKK Philosophy – "Cycle of Goodness" P4](#)

→ [Management Principle P5](#)

## Directors and Board of Directors (As of June 2023)



Chairman of the Board  
 Chairman Representative Director  
**Hidemitsu Hori**  
 March 1981: Joined Yoshida Kogyo K.K. (now YKK)  
 1989 to 2006: Served in the U.S.A.  
 April 2007: Vice President  
 April 2009: Senior Vice President  
 June 2009: Director, Senior Vice President  
 June 2011: President Representative Director  
 April 2023: Chairman Representative Director (Current)  
 June 2023: YKK Director (Current)



President Representative Director  
**Akira Uozu**  
 March 1985: Joined company  
 April 2013: Vice President  
 April 2021: Senior Vice President  
 June 2021: Director, Senior Vice President  
 April 2022: Director, Executive Vice President  
 April 2023: President Representative Director (Current)



Director and Vice Chairman  
**Shinichiro Yamaji**  
 March 1981: Joined company  
 April 2009: Vice President  
 April 2013: Vice President  
 April 2017: Executive Vice President  
 June 2020: Director, Executive Vice President  
 April 2023: Director, Vice Chairman (Current)



Director  
 Executive Vice President, General & Administration  
**Kosuke Iwabuchi**  
 March 1986: Joined company  
 1996 to 2009: Served in the U.S.A. and China  
 April 2009: Vice President  
 April 2016: Executive Vice President  
 June 2016: Director, Executive Vice President (Current)



Director  
 Executive Vice President, R&D and Technology  
**Shuichi Mizukami**  
 July 1985: Joined Yoshida Kogyo K.K. (now YKK)  
 April 2009: Executive Chief Engineer  
 April 2010: Vice President  
 June 2020: Director, Vice President  
 April 2021: Director, Senior Vice President  
 April 2022: Director, Executive Vice President (Current)



Director  
 CHRO (Chief Human Resources Officer)  
**Kazuo Matsutani**  
 March 1981: Joined Yoshida Kogyo K.K. (now YKK)  
 April 2009: Vice President  
 June 2016: Director, Vice President  
 April 2018: Director, Executive Vice President  
 October 2021: Director, Executive Vice President, CHRO  
 April 2023: Director, CHRO (Current)



Director  
**Fumio Niizeki**  
 March 1977: Joined Yoshida Kogyo K.K. (now YKK)  
 April 2012: Vice President  
 June 2014: Director, Vice President  
 April 2016: Director, Executive Vice President  
 April 2022: Director (Current)



Director  
**Wataru Otani**  
 March 1981: Joined Yoshida Kogyo K.K. (now YKK)  
 April 2001: YKK Vice President  
 April 2004: YKK Senior Vice President  
 June 2004: YKK Director, Senior Vice President  
 April 2009: YKK Director, Executive Vice President (until June 2018)  
 June 2018: Director, Executive Vice President  
 April 2023: Director (Current)



Director  
 Chairman, YKK Corporation  
**Masayuki Sarumaru**  
 March 1975: Joined Yoshida Kogyo K.K. (now YKK)  
 1977 to 1994: Served in the U.S.A.  
 June 1999: YKK Vice President  
 April 2003: YKK Senior Vice President  
 June 2008: YKK Director, Executive Vice President  
 June 2011: YKK President Representative Director  
 April 2017: YKK Vice Chairman Representative Director  
 June 2018: YKK Chairman Representative Director (Current)  
 June 2020: Director (Current)



Director  
 Executive Vice President, Manufacturing and Head of Manufacturing Division  
**Hiroshi Abe**  
 March 1985: Joined company  
 April 2014: Vice President  
 April 2021: Senior Vice President  
 April 2022: Executive Vice President  
 June 2023: Director, Executive Vice President (Current)

The Board of Directors deliberates and resolves on important matters, determines management policies, and supervises the execution of business operations. Currently, the Board has 10 directors (no more than 10 members), and the main results of deliberations in FY2022 are shown on the right. In order to promote active discussions, important matters are discussed at the Management Strategy Meeting before being brought up at the Board of Directors' meeting, external Audit & Supervisory Board members (outside experts) attend and state their opinions, and the chairman, president, and Audit & Supervisory Board members exchange opinions (three times in FY2022).

In order to improve the function of the Board of Directors, we are considering appointing not only Audit & Supervisory Board members but also outside officers as directors to increase the Board's transparency going forward.

**Board of Directors Meetings in FY2022**

Number of meetings	15 times (including extraordinary meetings)
Average number of agenda items	8.25
Average time per meeting	3.2 hours
Main agenda items and reporting items	<ul style="list-style-type: none"> <li>• Matters related to the Shareholders Meeting</li> <li>• Matters related to directors, operating officers, and executive specialists</li> <li>• Matters related to personnel and organizations</li> <li>• Matters related to business</li> <li>• Matters related to the disposal and transfer of important assets</li> <li>• Matters related to subsidiaries and major affiliated companies</li> </ul>

**Audit & Supervisory Board and Members** (as of June 2023)



Chair of the Audit & Supervisory Board  
Audit & Supervisory Board Member (outside)

**Fuminao Hachiuma**

April 1983: Joined Ajinomoto Co., Inc.  
June 2013: Executive Officer of same  
June 2015: Executive Officer & Vice President of same  
J-Oil Mills, Inc.  
President and Representative Director  
June 2016: Representative Director, President, and CEO of same  
April 2022: Director of same (until June 2022)  
May 2023: Outside Director, Seven & i Holdings Co., Ltd. (Current)  
June 2023: YKK AP Outside Audit & Supervisory Board Member (Current)  
Outside Director, Subaru Corporation (Current)



Audit & Supervisory Board Member (full-time)

**Hisao Miyamura**

March 1978: Joined Yoshida Kogyo K.K. (now YKK)  
2002 to 2008: Served in China  
April 2008: YKK Vice President (until March 2018)  
June 2018: Full-time Audit & Supervisory Board Member (Current)



Audit & Supervisory Board Member  
YKK Corporation Audit & Supervisory Board Member (full-time)

**Kiyotaka Nagata**

March 1979: Joined Yoshida Kogyo K.K. (now YKK)  
April 2008: YKK Vice President  
April 2009: YKK Executive Chief Specialist  
June 2013: Outside Audit & Supervisory Board Member  
YKK Full-time Audit & Supervisory Board Member (Current)  
June 2016: Audit & Supervisory Board Member (Current)



Audit & Supervisory Board Member (outside)

**Mina Sekiguchi**

April 1993: Joined Arthur Andersen L.L.P. Dallas Office  
June 2022: Managing Partner, Resonancia LLC (Current)  
Outside Director, Penta-Ocean Construction Co., Ltd. (Current)  
July 2022: Outside Director, Trainocate Holdings, Ltd. (Current)  
September 2022: Auditor, Japan Atomic Energy Agency (Current)  
October 2022: Outside Director, EX4Energy, Inc. (Current)  
June 2023: YKK AP Outside Audit & Supervisory Board Member (Current)

The Audit & Supervisory Board, which consists of four Audit & Supervisory Board members, held 14 meetings in FY2022 to audit the execution of duties by directors from the standpoint of legality and propriety. They also attend major meetings such as the Board of Directors Meeting, express opinions as necessary, and visit each location to conduct audits in

accordance with the audit policy. Two of the Audit & Supervisory Board members are invited from outside the company. With a high level of insight, experience, and expertise in corporate management, they conduct audits from an objective and fair-minded stance.

**Human Rights and Human Resources**

**Approach to and engagement with human rights**

**Formulation of the YKK AP Human Rights Policy**

In accordance with the "Cycle of Goodness" approach, we respect the human rights of every individual stakeholder in every country and region. In FY2023, the YKK AP Human Rights Policy was formulated in line with the revision of the YKK Group Human Rights Policy. YKK AP has set out its own Human Rights Policy Statement that, while sharing the fundamentals of the YKK Group policy, takes into account the human rights issues that arise in relation to YKK AP's business activities. Accordingly, we will further strengthen our efforts to fulfill our corporate social responsibility by appealing not only to our employees but also our business partners.

→ YKK Philosophy – "Cycle of Goodness" P4

**Establishing a Human Rights Working Group to promote internal understanding**

In FY2022, the company established a Human Rights Working Group (WG) as part of the Compliance Committee, and is strengthening its efforts by integrating the human rights initiatives from our past business activities into the entire company. In addition to promoting understanding of the current situation through assessment of new human rights risks and evaluating their level of importance and severity, from FY2022 to FY2023, we are conducting video training on "Business and Human Rights" for all employees to raise awareness of human rights and promote understanding within the company.

→ Compliance Committee P33

**Operation of a whistleblowing system and continued activities to increase employees' awareness**

The YKK Group implemented the "YKK Group Whistleblowing System" in 2006, establishing a system that enables individuals to consult with/report to consultation desks inside and outside the company anonymously regarding behavior that violates laws, work regulations, or internal rules. We are working to make all users aware of it. In addition, from the perspective of protecting whistleblowers, we have prohibited treating individuals disadvantageously due to their consultation.

By aiming to prevent the occurrence of illegal actions and to address them quickly if they do occur in the process of conducting business activities, the whistleblowing system is intended to serve as a structure for firm compliance. In addition to establishing a "grievance mechanism" to provide relief to those involved with the company from human rights violations arising from corporate activities, etc., we have also established a consultation desk to address workplace environment, mental health concerns, and the mental and physical health of our employees.

We have also implemented whistleblowing systems at overseas companies and have established a system for consultation/notification.

**YKK AP Human Rights Policy**

- Values
- Scope
- Commitment to human rights
- Organization and governance
- Human rights due diligence
- Human rights education
- Corrections and remedies
- Ensuring transparency/communication
- Maintaining initiatives for respecting human rights

**Human rights issues related to business activities**

- Prohibition of child and forced labor
- Prohibition of discrimination, harassment, and abuse
- Respect for freedom of association and the right to collective bargaining
- Understanding of customs and compliance with laws and regulations
- Respect for diversity
- Health and safety
- Hours and wages

→ The details of YKK AP Human Rights Policy are available on our website. <https://www.ykkap.co.jp/company/ip/sustainability/humanrights/>

# Promoting Diversity

YKK AP has issued the "Diversity & Inclusion Declaration" with the aim of utilizing the diversity of human resources to create new value and increase our future competitiveness in the international community.

In particular, as priority issues, we are striving to strengthen the hiring of female employees and support their career development, as well as to expand and entrench the employment of persons with disabilities.

## Creating a work environment for a diverse range of personnel to play an active role

We are working to create an environment and design systems that enable a diverse range of personnel to play an active role, such as easing restrictions on dual/secondary employment and introducing a shortened working hours system. In FY2022, we also conducted a "Job Satisfaction and Workplace Diversity Questionnaire" to ascertain the actual situation regarding balancing work and nursing care. Going forward, we will work to reduce anxiety over nursing care and improve the ease of balancing it with work.

## Promoting the active participation of women

The "AP Women's Career Development Program, a career development support program for female employees under the 6th Mid-term Management Plan, provides support for the long-term career development of participants through various training programs such as career training, internal exchange meetings, and the operation of a mentor system. In FY2022, 256 people, who were recommended from each workplace as candidates to be leaders in the future, participated.

### Diversity initiatives

	Step 1 (Past) Accept diversity	Step 2 (Present) Management from diversity to value creation	Step 3 (Future Vision) Create value
	<b>Compliance with laws/rules</b>	<b>Focus on superficial characteristics</b>	<b>Create value</b>
Educational background	Labor Standards Act	Hiring of human resources with a variety of career backgrounds; fair evaluation	
Age	Act on Stabilization of Employment of Elderly Persons	<ul style="list-style-type: none"> <li>Abolition of mandatory retirement age system: Hiring regardless of age, gender, or nationality</li> </ul>	Equal role Equal results Equal treatment
Gender	Act on Securing, etc., of Equal Opportunity and Treatment between Men and Women in Employment Act on Promotion of Women's Participation and Advancement in the Workplace (2016)	Promotion of the active participation of women; promotion of women for management positions/section manager-level positions <ul style="list-style-type: none"> <li>Management positions: FY2022: 122 → FY2024 targets: 140</li> <li>Section manager-level positions: FY2021: 447 → FY2024 targets: 500</li> </ul>	
Nationality	Immigration Control and Refugee Recognition Act (Illegal employment)	<ul style="list-style-type: none"> <li>Proactive hiring of foreign nationals</li> </ul>	Utilize the characteristics of individuals, create new value, and contribute to business
Disabilities	Act on Employment Promotion etc., of Persons with Disabilities	<ul style="list-style-type: none"> <li>Creating opportunities for people with disabilities that leverage their capabilities: FY2022: 2.32% → FY2024 targets: 2.50%</li> </ul>	
Working style	Labor Standards Act	Achievement of work-life balance <ul style="list-style-type: none"> <li>Encouragement of male employees to take childcare leave: FY2022: 73.2%</li> <li>Encouragement to take paid vacation: FY2022: 71.3% → FY2024 targets: 80.0%</li> <li>Total actual working hours / FY2022: 1,974 hours</li> </ul>	Enhancement of work and life

### Voice Comments from AP Women's Career Development Program participant



Product Development, International Business, Product Research & Development Division  
**Sari Sasaki**

I participated in AP Women's Career Development Program for two years between 2021 and 2022. Listening to the stories of senior employees working in management positions while experiencing childbirth and childcare, as I did, I realized that the important thing is to establish systems that allow both family and work to run smoothly. Through this experience, I have been able to think from a higher perspective in terms of how to utilize limited resources and how to develop human resources as an organization.

### Voice Comments from an employee who took childcare leave



Nationwide Accounts, Special Accounts Department  
**Takayuki Wakana**

I took a year of childcare leave after the birth of my second and third children, a set of twins. I am grateful for the strong support I received from my workplace, including the creation of a backup framework for the entire organization. I was also impressed by the fact that operations were streamlined to fill the holes left by my absence, and the organization was stronger upon my return. I did not feel too rusty after returning to work, and I am now in a role with more responsibility than I had before I took childcare leave.

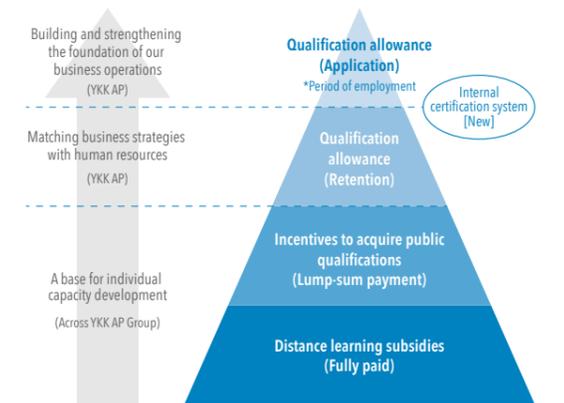
# Human Resources Strategy

We are working to create systems and environments in which each and every employee can demonstrate their full potential. In FY2023, we have set "efforts to improve employee engagement," "development and training of human resources to create new value," and "development and retention of innovative human resources" as our priority issues, and by improving our human resource system and implementing a human resource strategy, we will realize a pleasant and fulfilling work environment.

## Salary revisions, allowances for specific duties, and qualifications

We have been working toward an appropriate wage level that is competitive in the market, and in FY2022, in light of the government's wage hike policy, yen depreciation, and rising consumer prices, we revised salaries upward by an average of 3% for general employees and provided all employees with a special lump-sum payment. In FY2023, in addition to the provision of specific duty allowances and other benefits under the newly established internal certification system, we are revising salaries upward by an average of 6%. In encouraging the acquisition of qualifications, we are expanding the system by removing the age limit for eligibility and increasing the qualification allowance.

## Expansion of qualification allowances and support for qualification acquisition

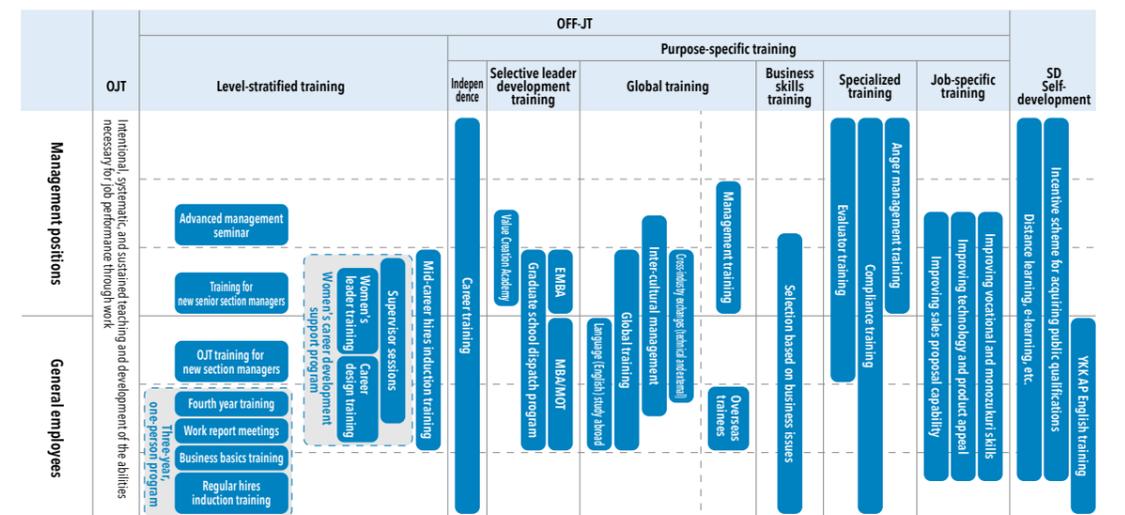


## Enhancement of training systems

We are enhancing our internal training system to develop personnel who can contribute to our business and organization and improve their individual skills. In addition to the "Value Creation Academy," which aims to develop the business leaders of the future, level-stratified training for newly appointed managers, we have established a six-month English language

training program for self-development, and subsidize the cost for employees who wish to attend. Moreover, with the abolition of the mandatory retirement age system and the decision of when to retire being left to the individual, the company provides "career training" for employees to reflect on their own careers.

### Diagram of the Training Scheme for FY2023



### Dialog with employees

We hold "roundtable meetings," in which the president and other directors engage in direct dialogue with employees, as well as site visits and interviews, in which employees from headquarters and business units gather information on issues in various regions and workplaces. Employee feedback obtained through dialogue is being reflected in a variety of measures, including the establishment of a career consultation desk and the introduction of a "shared mentor system." In addition, the YKK Employee Stockholding Association holds a biannual meeting to report on business results and for employees to ask questions of the directors.

### Open call for new business themes and promotion leaders

In order to develop new areas and fields that contribute to sustainable growth, in FY2022, under the leadership of the CHRO (Chief Human Resources Officer), we held an internal call for new business themes and the leaders who will be responsible for promoting them. Employees of all ages contributed ideas that were not confined to existing business fields, and three leaders were selected from among them to work toward the commercialization of these ideas. In FY2023, they will be assigned to the newly established "New Business Development", where they will further evolve their proposal topics and search for new business themes.

### Graduate school dispatching and MOT/MBA overseas studies

Aiming to develop the next generation of business leaders, we dispatch employees to graduate schools (PhD/master's programs) in Japan and overseas and provide support for MOT/MBA study abroad. Research topics are not limited to our current business, and we also proactively recommend themes that will become even more critical in the future, such as robotics, AI/machine learning, DX, next-generation environmental response, etc. We aim for diversified ideas as an organization by helping employees to gain specialized knowledge and a multifaceted perspective that expand beyond the framework of the company. We dispatched 14 employees in FY2022, for a cumulative total of 31 employees.

Further, in addition to recommending the acquisition of doctorates, etc., we are implementing collaboration between recipients, with organizations within the company, and with universities and research institutes, and we operate the "AP PhD Holder Association" with the aim of further revitalization. In FY2022, YKK and YKK AP PhD holders held a technical exchange meeting to share technical information and technical issues in

their fields of expertise.

**Voice** Comments from an employee who obtained a PhD



Environment, Energy and Analysis Technology Group, Technical Research Division  
**Yohei Tsukamoto**

I received my Ph.D. from the Graduate School of Kobe University, where I conducted research on methods for predicting the sound insulation performance of double-glazed windows. Sound insulation testing to evaluate windows' sound insulation performance can be very costly and time-consuming. For double-glazed windows with significant sound insulation effects, I conducted a study based on the theory of double-panel sound insulation and proposed a practical method for predicting sound insulation performance. I hope to continue working on internal and external architectural acoustics issues and contribute to the creation of comfortable spaces.

### Health Management

We view the health of our employees and their families as a management issue, and under our "Health Declaration" adopted in 2018, we have promoted the establishment of a healthy environment, etc., to reduce lifestyle-related diseases and control psychological disorders. As such, we have been recognized as a "2023 Certified Health & Productivity Management Outstanding Organization (Large Corporation Division)."

We have also established a health consultation service both inside and outside the company to promote the maintenance of employee physical and mental health. Inside the company, employees can consult with industrial physicians at business locations and nurses at health management centers, at any time. We also work with external organizations to provide appropriate mental healthcare for employees through counseling by e-mail, by phone, and via remote interviews.

→ Details of the YKK AP Health Declaration are available on the website. <https://www.ykkap.co.jp/company/en/sustainability/health/>

→ Details of Human Rights and Human Resources are presented in our Sustainability Data Book. (in Japanese only) <https://www.ykkap.co.jp/company/jp/sustainability/data/social/>

# Compliance

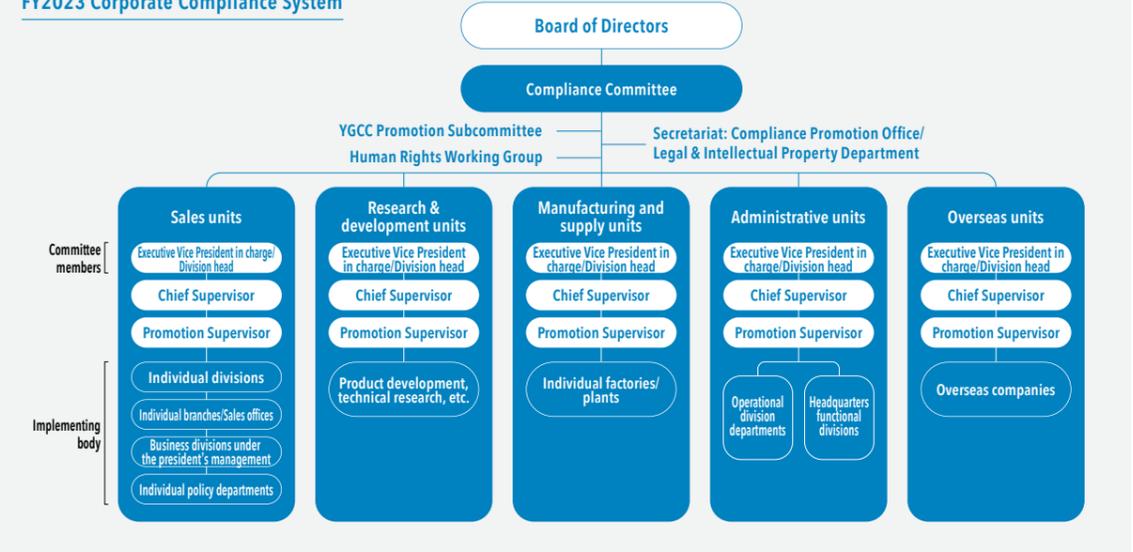
### Corporate Compliance System and Education

We have established a Compliance Committee to promote the YKK AP Group corporate compliance system. Divided into five units, this system promotes the compliance activities of YKK AP and affiliated companies. Each unit is working independently to enhance monitoring, including compliance with rules, regulations, and guidelines.

In addition to regularly holding compliance training for

corporate officers, at least two hours of compliance training is provided to all employees each year. For persons heavily involved in compliance work, we also provide education in specialized fields led by the relevant specialized departments and committees (HR, purchasing, environmental safety management, trade management, information security, technical asset management, the environment, etc.).

FY2023 Corporate Compliance System



### Standards for Compliance Activities: "YKK Global Criteria of Compliance"

In FY2019, YKK AP introduced the YKK Global Criteria of Compliance (YGCC), the YKK Group's compliance standards based on the YKK Philosophy and ISO 26000, and the adoption of the YKK Global Criteria of Compliance at major sites in Japan and overseas was completed in FY2021. From FY2022 onward,

we have been promoting the establishment of YGCC operation while accommodating new business sites.

We regularly carry out YGCC audits such as self-inspection and internal audits. Standardized monitoring contributes to reduction of on-site workloads by eliminating duplicate monitoring items.

YKK Global Criteria of Compliance (YGCC)

Seven Core Themes Related to ISO 26000	YKK Group Commonalities				Items Specific to YKK AP's Business
(1) Organizational Governance (2) Human Rights (3) Labor Practices (4) Environment (5) Fair Operating Practices (6) Consumer Issues (7) Community Involvement and Development	<b>(1) Management System</b> - Business Licenses - Social Compliance Policy - Social Compliance Committee - Opinions from the Employees - Whistle-Blowing System - Compliance Violations <b>(2) Labor Conditions</b> - Child Labor - Forced Labor - Discrimination - Discipline, Harassment or Abuse - Freedom of Association and Collective Bargaining - Regular Employment/ Employment Contract	<b>(3) Working Hours and Wages</b> - Working Hours - Wages and Benefits <b>(4) Health and Safety</b> - Health and Safety Management System - Emergency Planning & Fire Safety - Medical Services - Sanitation/ Hygiene - Physical Hazards - Chemical Hazards - Structural Integrity - Dormitory and Canteen	<b>(5) Environment</b> - Environmental Management System - Energy Consumption and Greenhouse Gas Emissions - Water Use - Waste Water Discharge and Effluents - Waste Management - Atmospheric Emissions - Chemical Management	<b>(6) Fair Business Practices</b> - Fair Competition - Anti-Bribery - Confidential Information Protection - Non-Competition Obligation - Personal Information - Intellectual Property - Accounting and Tax Preparation - Antisocial Forces - Supplier Management - Foreign Trade - Subcontracting	<b>(7) Contract Construction Work</b> - Management System - Labor Conditions - Hours and Wages - Health and Safety - Environment - Fair Business Practices
Customer Requests Supplier Code of Conduct Corporate Activity Guidelines					

→ Details of Compliance are presented in our Sustainability Data Book. (in Japanese only) <https://www.ykkap.co.jp/company/jp/sustainability/data/governance/>

# Risk Management

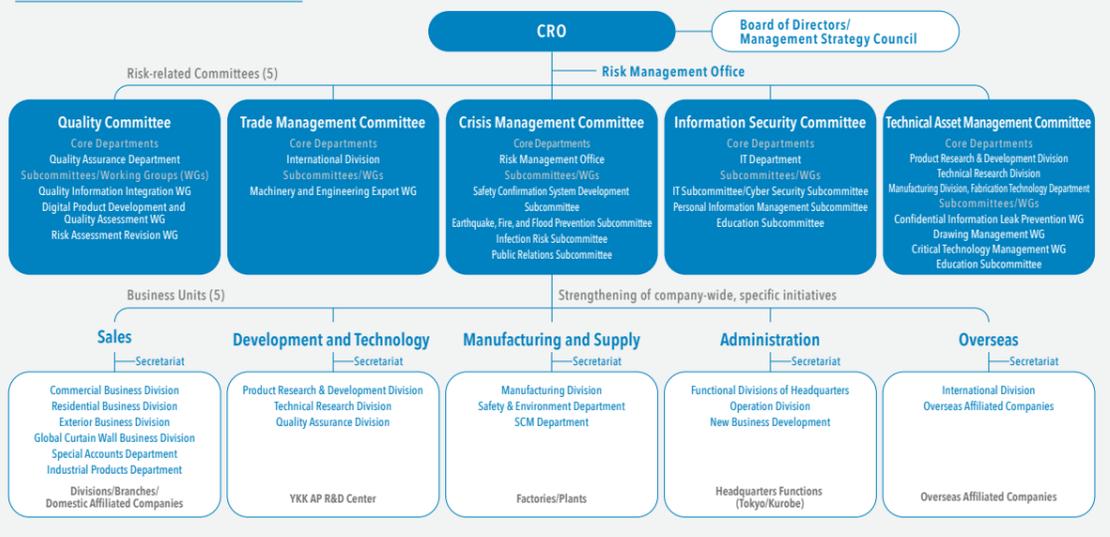
## Strengthening of the risk management system

YKK AP has formed five risk committees to enhance the risk management system and establish a governance system for emergencies. We have also created regulations for each committee and are operating them accordingly.

In FY2022, with the aim of improving preparedness for increasingly diversified risks and strengthening our measures for business continuity (BC), we changed the persons

responsible for individual organizational units (Executive Vice Presidents and Division Heads) from "Crisis Management Committee Members" to "Business Continuity Management (BCM) Committee Members." We will enhance our resilience by strengthening cooperation between individual divisions and the Risk Management Committee, preparing a business continuity plan (BCP) for ordinary circumstances, and ensuring smooth operations in the event of an emergency.

### FY2023 Risk Management System



## BCP initiatives

In preparation for disaster and risk occurring, we have formulated BCPs at all locations in Japan and overseas. In addition, for the purpose of prompt implementation of the BCPs, in FY2022 we reviewed and updated the Business Continuity Management (BCM) Regulations. In FY2023, we plan to further instill this along functional axes and on a regional site basis.

We carry out regular disaster drills every year to increase the effectiveness of the BCPs. In addition, in FY2022, in response to changes in work styles, such as telecommuting and commuting

directly between home and work sites, the CRO led the distribution of a "Natural Disaster Risks and Countermeasures" video via a web-based internal newsletter.

We are also enhancing our ability to quickly identify and address risks in procurement. In addition to purchasing materials from multiple suppliers, understanding and improving the supply chain, and securing inventories of critical management items in case of emergencies, the research and development, manufacturing, and purchasing divisions work together to set up alternative sources of supply, and other efforts taking the BCP into account are conducted from the product development phase.

## Measures and initiatives to address risks in procurement

Risks	Countermeasures	Initiatives
<b>Weather and disasters</b> (earthquakes, typhoons, cold spells, etc.)	Alternative materials, multi-company purchasing, inventory	(1) Selection of alternative materials (2) Multi-company purchasing system
<b>Politics</b> (wars, conflicts, economic sanctions)	Exclusion from purchasing	(3) Inventory measures
<b>Economy</b> (supply-demand balance, exchange rates)	Alternative materials, multi-company purchasing, inventory	(4) Cost reductions, sale prices, and other business strategies
<b>Ethical and legal issues</b> (human rights, the labor environment, information security, subcontracting support)	Exclusion from purchasing, legal compliance	(5) Conclusion of agreements on the Basic Transaction Principles (7) Implementation of CSR surveys (6) Change of internal systems (rules and regulations, appraisals) (8) Changes in the management system for contracted and temporary employees
<b>Supply chain</b> (legal compliance, competitiveness, stable supply)	Inspection, evaluation, restructuring	(9) Supply chain restructuring (10) Compilation of BCP data

→ Material procurement P51

## Risk map development and selection of key risks

We assess the risks surrounding the business and create a risk map according to changes in the environment, the urgency of response to the risks, and the expected scale of damage. In FY2022, we reviewed our risk map from the following three perspectives: (1) reviewing risk items including key risks, (2) clarifying risk levels, and (3) identifying efforts by related

divisions to address key risks.

Risks that have a significant impact on our business are positioned as key risk items, and as a result of this review, the three items of "cyber attacks (information security)," "supply chain (changes in the economic environment)," and "environmental regulations" were upgraded in risk rank, and specific measures are now being implemented.

### Response to main key risks

#### Threat of natural disasters (earthquakes, tsunamis, typhoons, torrential rains)

##### External environment and potential risks

Damage caused by large-scale earthquakes, windstorms, or flooding at our business sites, or similar damage at our business partners, etc., may lead to slowdowns in our business activities.

Natural disasters may result in the death or injury of employees, damage to facilities, etc., leading to reduced production capacity, as well as replacement and restoration costs for equipment, company buildings, warehouses, and production lines, etc. In addition, there is a risk that business activities may be hampered by outages to critical infrastructure and disruptions to logistics. These slowdowns may lead to customers and business partners moving to competitors.

##### Initiatives

- In the event of a disaster, a company-wide BCP task force headed by the president is established. BCM Committee members will serve as the heads of BCP task forces for their respective functions, and will oversee, direct, and generally manage the emergency response.
- The Crisis Management Committee, which oversees the entire company as an organization to deliberate and decide on policies and measures for business continuity, with the head of each functional unit serving as a member of the BCM Committee, will be responsible for handling the situation.

#### Cyber attacks (information security)

##### External environment and potential risks

Company secrets and other confidential information may be lost or leaked due to computer virus infections, unauthorized access, or other causes. In addition, cyber attacks, outages of telecommunication services, etc., could bring down information systems and shut down all our businesses.

With the recent progress of DX and the expansion of remote work, information systems have more network connection points with internal and external parties than in the past. Environmental changes have heightened the possibility of disruption of business activities due to forced shutdowns or loss of corporate secrets, etc., caused by malicious external intrusion into information systems.

##### Initiatives

- Establish and operate an IT-BCP (including at domestic and overseas affiliated companies)
- Implement IT security management measures (cyber security and SIRT response)
- Strengthening response by setting up subcommittees in the Information Security Committee for specific roles.



Vice President, CRO

**Osamu Anda**

## "We aim to build a resilient organization."

To realize one aspect of materiality, a "Resilient Business Foundation," in FY2022, we reviewed and updated our Business Continuity Management Regulations for the first time in eight years. We are aiming to acquire appropriate business continuity capabilities for major contingencies, with the goal of promptly implementing an initial response and BCP on an all-hazards basis, including in the event of major natural disasters, severing

of the supply chain, cyber accidents, spread of infectious diseases, etc.

I believe that in the implementation of risk management activities, it is important to secure the human resources to perform the work. Going forward, we are planning to strengthen both operational and physical aspects of the BCM implementation framework in each country and region, including the implementation of education and training programs for all employees, and the provision of centralized information. In addition, in order to develop human resources with a high sensitivity to risk, we have established a team, consisting mainly of young employees, which will take an active role in addressing risk. We will further strengthen our foundation by enhancing our efforts made during ordinary circumstances.

→ Details of Risk Management Resources are presented in our Sustainability Data Book. (in Japanese only) <https://www.ykkap.co.jp/company/jp/sustainability/data/governance/>

→ Materiality P20

# Environmental Management

## Environmental initiatives

YKK Group has established the “YKK Group Environmental Vision 2050,” which maps out the long-term orientation of our environmental initiatives. Under this policy, YKK AP has established its vision for 2050 of “achieving zero environmental impact in our business activities throughout the entire product lifecycle.”

In the Mid-term Environmental Policy for FY2021 to FY2024, we have set environmental targets for the entire value chain with the aim of resolving and contributing to the resolution of the environmental issues of “climate change,” “resource recycling,” “water,” and “biodiversity,” and are working to achieve them.

As the structure for promoting these activities, the “YKK AP Environmental Policy Board Committee,” chaired by the

president, formulates and approves environmental policy and strategy from a management perspective. Under that policy, the “YKK AP Environmental Committee” incorporates the environmental policy into sales, research & development, manufacturing, management, and overseas divisions.

In addition, to confirm the progress of these environmental policies and environmental compliance, we conduct annual internal environment audits. We have also acquired ISO 14001 certification at all locations in Japan and at eleven locations overseas, and are continually working to increase the level of environmental management. In April 2023, we were certified as an “Eco-First Company” by the Minister of the Environment in recognition of our position as an environmentally progressive company in the industry.

### YKK AP Environmental Management Policy (FY2021 to FY2024)

#### Creating environmental value at every stage of the lifecycle: Toward a brighter future for nature and humanity

With the intention to make a better society and environment for the next generation, YKK AP will take on the challenge of creating new value and achieving zero environmental burden, through technical innovation.

- We will strive to contribute to resolving environmental issues throughout the value chain and reducing the environmental burden.
- We will address climate change, resource recycling, water, and biodiversity as environmental issues.
- We will create new environmental value with an eye toward the future, on a foundation of diverse human resources

### The history of YKK AP’s environmental activities and future vision for 2050



### FY2024 environmental targets (relative to FY2013)

[Environmental Issues]	Research, Development, and Verification	Material Procurement	Manufacturing and Logistics	Sales	Installation	Product Use	[People]
<b>Climatechange</b>	<ul style="list-style-type: none"> <li>• Development of products as measures against climate change</li> <li>• Scope 3: Reduction of CO<sub>2</sub> emissions by 20%</li> </ul>		<ul style="list-style-type: none"> <li>• Contribution of a 149% reduction of CO<sub>2</sub> through high thermal insulation products (relative to FY2020)</li> <li>• Scopes 1 + 2: Reduction of CO<sub>2</sub> emissions by 36%</li> <li>• Achievement of zero-CO<sub>2</sub> model factories</li> </ul>				<b>17</b> <small>INITIATIVES FOR THE GOALS</small> <b>Customers</b> <ul style="list-style-type: none"> <li>• Showrooms linked to the community</li> </ul> <b>Society</b> <ul style="list-style-type: none"> <li>• Education of the next generation</li> <li>• Contribution to the local community</li> </ul> <b>Employees</b> <ul style="list-style-type: none"> <li>• Environmental activities with everyone participating</li> </ul>
<b>Resource recycling</b>	<ul style="list-style-type: none"> <li>• Aluminum: 39% recycling rate for external products</li> <li>• Vinyl windows (APW scrap): 100% internal recycling rate</li> <li>• Reduction of waste emissions by 32% (relative to FY2016)</li> <li>• Reduction of packaging materials</li> </ul>		<ul style="list-style-type: none"> <li>• Utilization of outside company scrap from vinyl windows</li> </ul>				
<b>Water</b>	<ul style="list-style-type: none"> <li>• Development of products as measures against damage from windstorm and flooding</li> <li>• Reduction of total water usage by 32%</li> </ul>						
<b>Biodiversity</b>	<ul style="list-style-type: none"> <li>• Achievement of hexavalent chromium-free products</li> <li>• Achievement of factories that are in harmony with local nature</li> </ul>						

## Disclosure of information under the TCFD recommendations

YKK AP has endorsed the Task Force on Climate-related Financial Disclosures (TCFD) since FY2019.

In relation to both climate-related risks and opportunities, we conduct scenario analysis of the impact on our business and finances and reflect the results in our management strategies.

<b>Governance</b>	<p>YKK AP has a Board of Directors as the decision-making and oversight body for important matters such as management policy, an Audit &amp; Supervisory Board as the company’s auditing organization, and an Operating Officer System to help the company promote the execution of business and operations.</p> <p>In particular, sustainability issues are addressed by the “ESG General Meeting,” chaired by the president, which conducts cross-functional activities by formulating policies from a company-wide perspective and rolling them out to related divisions and domestic and overseas group companies.</p> <p>The Environmental Policy Board Committee, which is chaired by the president and has jurisdiction over the environmental area within the ESG General Meeting, formulates and approves environmental policies and strategies, including on climate change, from a management perspective, and monitors their progress. The “Environment Committee” rolls out these environmental policies and strategies to our manufacturing and sales sites in Japan and overseas, and confirms how they are being implemented through mutual internal environment audits.</p>															
<b>Strategy</b>	<p>In line with TCFD recommendations, we are identifying and assessing the significant risks and opportunities that the issue of climate change poses to YKK AP.</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Financial impact on YKK AP</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Transition risks</td> <td>Reputation</td> <td>Loss of corporate value due to delay in responding to public demands, such as carbon neutrality</td> </tr> <tr> <td>Market</td> <td>Increased costs due to energy resource depletion</td> </tr> <tr> <td rowspan="2">Physical risks</td> <td>Urgent</td> <td>Increased damage from natural disasters, supply chain fragmentation</td> </tr> <tr> <td>Chronic</td> <td>Reduced earnings due to higher average temperatures causing higher air conditioning costs at company plants and higher raw material prices Restrictions on business activities due to water shortages caused by reduced rainfall</td> </tr> <tr> <td rowspan="2">Opportunities</td> <td>Products/ Services</td> <td>Increased demand for high thermal insulation products Increased demand for carbon-free and recycled-resource products (e.g., recycled aluminum)</td> </tr> </tbody> </table>	Type	Financial impact on YKK AP	Transition risks	Reputation	Loss of corporate value due to delay in responding to public demands, such as carbon neutrality	Market	Increased costs due to energy resource depletion	Physical risks	Urgent	Increased damage from natural disasters, supply chain fragmentation	Chronic	Reduced earnings due to higher average temperatures causing higher air conditioning costs at company plants and higher raw material prices Restrictions on business activities due to water shortages caused by reduced rainfall	Opportunities	Products/ Services	Increased demand for high thermal insulation products Increased demand for carbon-free and recycled-resource products (e.g., recycled aluminum)
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	<b>Risk management</b>	<p>Risks related to the business as a whole are assessed and reviewed once a year, prioritized by “size of loss” and “frequency of occurrence,” and each risk is managed by the relevant committee. Climate change-related risks (natural disasters, environmental regulations, etc.) are also identified as key risks and incorporated into the management process, with policies developed and monitored on a global basis by the Environment Committee and the Crisis Management Committee.</p>														
<b>Indicators and targets</b>	<p>In order to achieve carbon neutrality, we have set medium- and long-term goals certified by Science Based Targets initiative (SBTi) and formulated an environmental action plan to achieve them in conjunction with our mid-term business plan. Progress is disclosed in the Integrated Report and Environmental Report.</p>															

# Taking on the challenge of carbon neutrality

We have set our own greenhouse gas reduction target for FY2030 at 50% below the FY2013 level. In February 2021, this target was certified by the international organization Science Based Targets initiative (SBTi). Under the "Evolution 2030" vision, YKK AP aims to reduce its emissions by 80% by FY2030 and by 100% by FY2040, and we will strengthen our efforts to achieve these goals ahead of the certified schedule.

In FY2021, we launched the "Carbon Neutral Project" with an

executive vice president as project leader. A carbon neutral technology roadmap has been developed, and six working groups, with young engineers participating, are developing technologies to achieve decarbonization.

Furthermore, by reducing the energy used for heating and cooling through the popularization of high thermal insulation products, we will contribute to carbon neutrality not only for our own company but also for society as a whole.

- Evolution 2030 P7
- Products and services to address social issues P19

## Scope 1 and 2 initiatives

We are working to reduce the amount of fuel used in our manufacturing processes. In addition to improving the efficiency and energy-conservation performance of our production facilities, we are electrifying our heat source equipment and switching from liquid fuels to natural gas. Furthermore, we are using existing technologies to develop and demonstrate the use of hydrogen, ammonia, and other substances in our gas burners.

As such, we are working on both energy saving and energy creation. In terms of energy creation efforts, we are working to introduce solar power generation (installed on rooftops, fields etc., at seven plants and factories in both domestic and overseas), hydroelectric power generation (using the power of water flowing through pipes), biomass power generation and boilers (using wood waste produced during manufacturing for in-house consumption), and wind power generation (using exhaust wind inside factories). We have tripled our investment in renewable energy relative to FY2020 levels and are stepping up our efforts accordingly.

In order to measure our progress in reducing CO<sub>2</sub> emissions, we established a database to visualize CO<sub>2</sub> emissions by identifying the energy consumption of each piece of equipment at the manufacturing stage. In product development, we have introduced the "Environmentally Friendly Design Evaluation Sheet," which relates CO<sub>2</sub> emissions to evaluation criteria during design and development.

## Scope 3 initiatives

Scope 3 emissions account for the majority of the CO<sub>2</sub> emissions associated with YKK AP's business activities across the supply chain as a whole. Of these, emissions from the

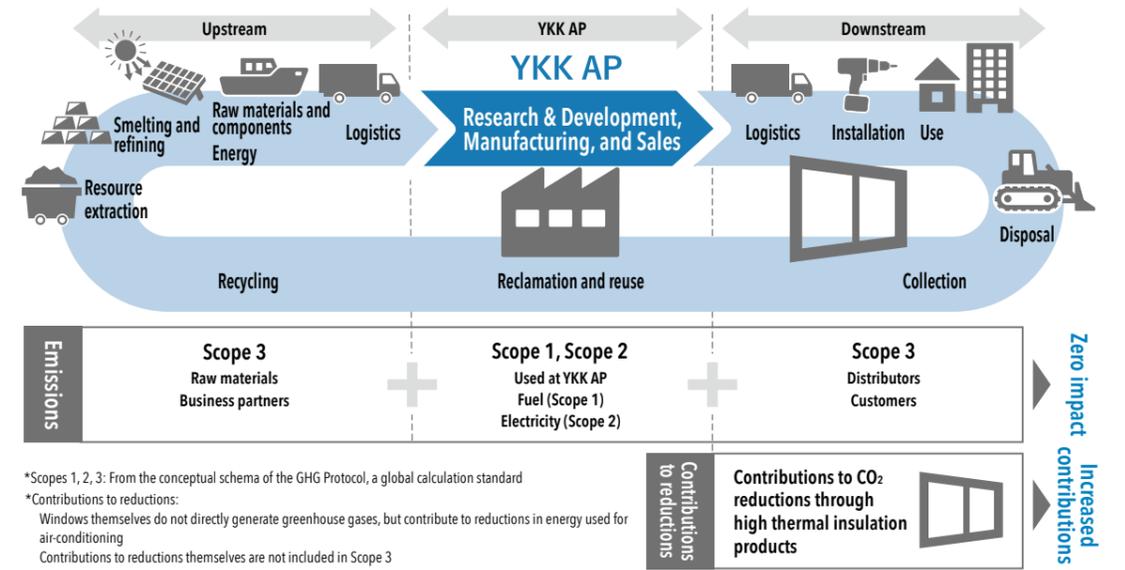
procurement of materials used in the manufacture of products account for 80% of the total. In particular, the procurement (mining, refining, and overseas transportation) of aluminum ingots used for aluminum products and other products has a significant impact, and increasing the utilization rate of recycled materials (re-used raw materials such as aluminum scrap recovered from the market) will have the greatest impact toward achieving carbon neutrality.

All aluminum scraps generated in the manufacturing process are reused, and we have already achieved an internal recycling rate of 100%. We also aim to achieve a 100% recycling rate for market-obtained aluminum scrap generated outside the company. In September 2023, an aluminum recycling furnace will start operation at the Shikoku Plant, and we plan to install the same equipment at other manufacturing sites in the future.

In addition, we will work toward technical progress in aluminum recycling through co-creation between industry, government, academia, and the private sector. We are involved, as the lead company, in the "Creation of a Toyama Resource Recycling Society Model," an industry-academia fusion hub concept project to revitalize aluminum-related industries in Toyama Prefecture, led by the University of Toyama.

In regard to logistics, we have introduced double-trailer trucks for transportation over land, increasing the amount of cargo transported at once by 1.8 times the previous level. By introducing "trunk line relay transportation," which includes consolidating transportation routes and improving loadability by combining partial loads, "secondary delivery," which includes joint delivery and alternate-day delivery, and "modal shift," which includes using railroad containers, we are making ongoing efforts to reduce CO<sub>2</sub> emissions.

## Lifecycle of YKK AP products and CO<sub>2</sub> emissions



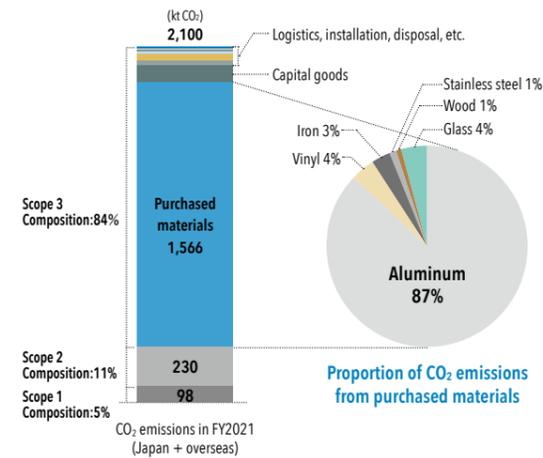
\*Scopes 1, 2, 3: From the conceptual schema of the GHG Protocol, a global calculation standard

\*Contributions to reductions:

Windows themselves do not directly generate greenhouse gases, but contribute to reductions in energy used for air-conditioning  
Contributions to reductions themselves are not included in Scope 3

## Breakdown of YKK AP's CO<sub>2</sub> emissions (FY2021)

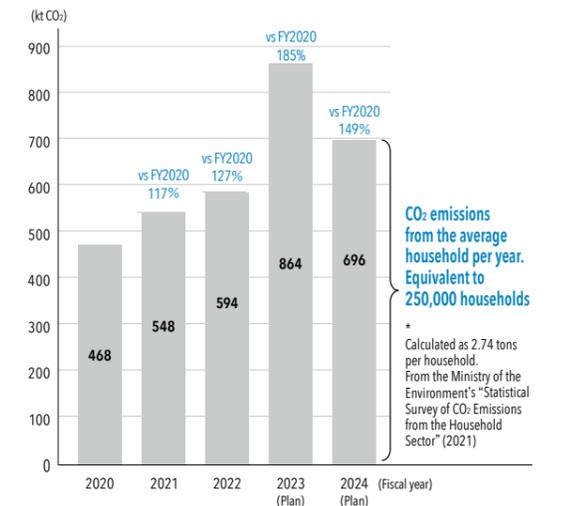
In the supply chain as a whole, procurement of materials (refining, etc.) under Scope 3 accounts for a large proportion of emissions, and aluminum materials account for a large proportion of these



Aluminum, also known as "electricity in a can," requires a large amount of electricity for electrolysis to refine it from raw materials such as bauxite. However, because aluminum can be remelted using only a small amount of energy, aluminum recycling plays a very important role in reducing CO<sub>2</sub> emissions.

## Contributions to CO<sub>2</sub> reductions through high thermal insulation products sold in Japan

Sales of high thermal insulation products can be said to contribute to CO<sub>2</sub> reductions in society as a whole



\*Applicable products (equivalent to sustainable products)

Vinyl windows: APW 430, APW 330, PLAMADO H  
Composite windows: APSWORD, APW 410  
Vinyl inner windows: Mado Remo - PLAMADO U Inner Window  
Thermal insulation doors: InnoBest, Venato D30, Kantan Door Remo, Concord S30  
Commercial building thermal insulation windows: EXIMA 37, EXIMA 77, APSWORD NEO-LB

\*Conventional products  
[New construction] Aluminum windows + insulating glass, aluminum doors  
[Remodeling] Aluminum windows + single glass

\*The FY2024 plan is the mid-term plan developed in FY2021.

## Taking on the challenge of a circular economy

### Installation of RPF production equipment and expansion of operations

Our company is promoting 3R activities\*1 (reduce, reuse, recycle waste, etc.). In FY2021, we installed RPF (Refuse derived paper and plastics densified fuel) production equipment at the Kurobe Ekko Plant. In the past, waste plastics such as film and laminate, as well as used paper, were used as raw materials, but from FY2022, the range of waste used will be expanded to include wood waste, thereby promoting the conversion of waste into valuable resources. We reduced the total amount of waste product in Japan and overseas in FY2022 by approximately 25% relative to FY2016.



RPF production equipment (Kurobe Ekko Plant)

### Toward improved vinyl recycling rates

We are also actively engaged in recycling the vinyl produced during the manufacturing process for vinyl windows and after use. We have installed crushing and sorting equipment at each of our vinyl window manufacturing sites, and by reusing the materials as raw materials for vinyl profiles and gaskets\*2 for insulating glass, our internal recycling rate improved to 28% in FY2022.

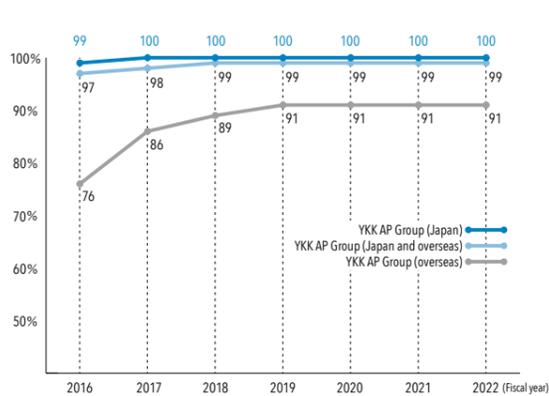
We are working with industry and academia to build an industry-wide system to collect and recycle vinyl windows in the market, including participation in the "Reviewing Committee for Recycling of Used Vinyl Windows," (Vinyl Environmental Council, etc.), which was established in 2019.

### Implementation of guidelines for environmentally friendly design

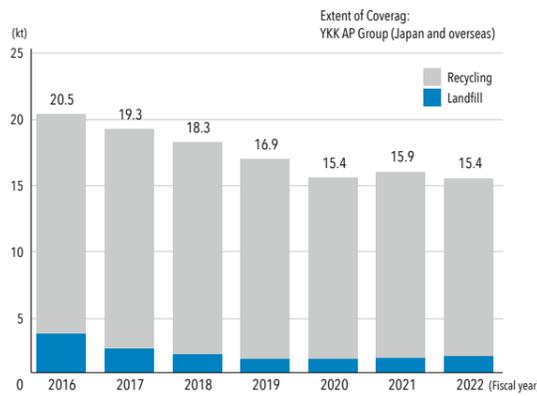
To minimize CO<sub>2</sub> emissions throughout the supply chain, we developed the "Environmentally Friendly Design Guidelines" in FY2022.

Five items that contribute significantly to CO<sub>2</sub> reduction during the product lifecycle are "visualization of CO<sub>2</sub> emissions," "standardization of packaging materials," "visualization of environmentally hazardous substances," "ease of disassembly and separation," and "environmentally friendly design guidelines and evaluation methods." These items indicate YKK AP's approach and policy regarding environmental considerations, and efforts are underway to evaluate and improve its products.

### Industrial waste recycling rate (manufacturing sites)



### Waste output (manufacturing sites)



\*1 3Rs: Reduce, Reuse, Recycle  
\*2 Parts used to fit glass into sashes

Details of Environmental Management are presented in our Environmental Report. (in Japanese only)  
<https://www.ykkap.co.jp/company/jp/sustainability/environment/report2023/>

## DX Promotion

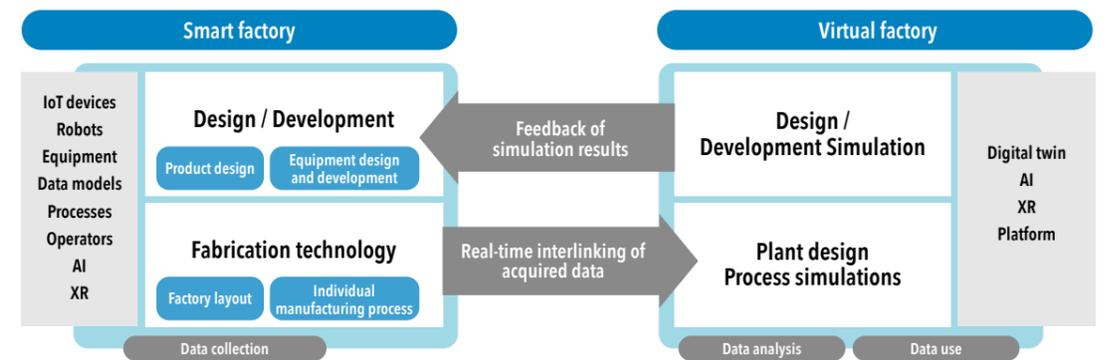
### Developing and disseminating digital technology for smart factories

YKK AP is promoting smart factories to increase its competitiveness in the global market, and is working to improve the operational availability of its equipment through digital transformation (DX). In addition, through DX, we aim to increase productivity by improving efficiency in all departments, including sales, development, manufacturing, and administration, and are working to achieve transformation into a company with "the speed and flexibility to respond to changes."

In order to strengthen research and development in the digital field, YKK AP Technologies Lab (NA) Inc. was established in June 2022 to undertake research and development on

virtual factories and other fundamental reforms. Specifically, we are introducing digital technologies such as IoT devices, 5G, and AI to create engineering and supply chains in virtual space for the purpose of digital twinning, as well as training global personnel capable of implementing change.

In addition to basic research on drones, 3D printers, and AI image analysis, the Digital Strategy Department is also developing plans and conducting trials for operational use, which is expected to be applied in various fields such as sales, development, and manufacturing. Hands-on digital experience events are being held to spread awareness of these initiatives within the company.



### Hands-on digital experience events

Hands-on digital experience events for employees are held to deepen their understanding of digital technology, generate ideas for business applications, and develop digital human resources capable of driving DX.

In FY2022, events were held both at real-world venues (two locations), where participants could operate and experience actual equipment, and on the web (at a Metaverse venue), where remote participation was possible. Going forward, we plan to hold these events at locations around the country. We will continue to work toward the realization of DX while creating an environment in which employees are able to make use of digital technology.



Employees try their hand at operating a drone at an event



Events were also held at a Metaverse venue

# Residential Business

## Proposing comfortable lifestyles, starting with windows and doors

With a focus on the “APW” window brand, we propose comfortable lifestyles with entrance doors and window products that offer enhanced thermal insulation performance and safety. We aim to build a society that is friendly to both houses and people by providing high-performance window and door products that also meet the needs of home builders and residential equipment companies.

### Main products

- ◎ Windows
- ◎ Entrance doors/sliding doors
- ◎ Interior doors/partitions
- ◎ Window shutters
- ◎ Remodeling windows/doors
- ◎ Quake-resistance retrofitting
- ◎ Window and door products for home builders (prefabrication)
- ◎ Doorways and windows for modular bathrooms



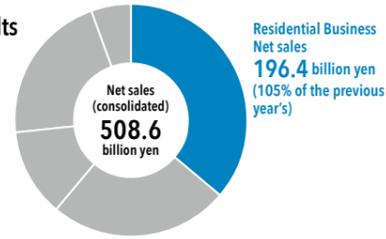
### Our strengths

- A wide variety of high thermal insulation windows for healthy and comfortable living
- Disaster prevention and mitigation products with a focus on safety and security that support the building of earthquake- and typhoon-resistant homes
- An enhanced lineup of products for remodeling windows and doors in the private areas of condominiums and single family homes
- Use of account management to provide business partner-specific product proposals

### Market environment and social issues

Although the number of new housing starts in Japan has been decreasing year by year, demand for high thermal insulation window and door products has been increasing due to the establishment of new higher insulation performance grades under the Housing Performance Indicator System. In addition, demand for remodeling of windows and doors is also growing as a result of government subsidy programs. In terms of addressing social issues, in order to realize a carbon-neutral society by 2050, we will reduce CO<sub>2</sub> emissions throughout the product life cycle, develop recyclable materials, and pursue product development that makes use of recycled materials. In addition, to address the problem of vacant houses, we will work to increase the value of stock housing. In the home builders (prefabrication) sector, we will respond to growing needs for ZEHs, safety and security, and disaster prevention awareness.

### FY2022 results



### The situation in FY2022

As a result of our policy of “increasing thermal insulation performance of windows and doors,” centered on vinyl windows, net sales of vinyl windows were 104% of the previous year’s. In particular, the sales volume of APW 430 high-performance triple-glazed vinyl windows was 107% of the previous year’s, driving the trend toward high thermal insulation products. The rate of vinyl windows to the total number of windows sold for single family homes in Japan is 31%, and the combined rate of vinyl windows and aluminum-vinyl composite windows is 75%, indicating a shift toward higher thermal insulation. Net sales of the three main products in the window and door remodeling business were around 110–120% of the previous year’s, with strong sales due in part to increased demand driven by government subsidy programs. In the home builders (prefabrication) sector, contracts for single family homes slowed down due to soaring material prices, but contracts for multi-family residences stayed firm due to continued low interest rates. New orders for high thermal insulation composite windows also contributed to net sales standing at 101% of the previous year’s figures. In the modular bathroom sector, sales were 110% of the previous year’s, supported by market share expansion and demand for remodeling.

### Future strategies

As more attention is paid to the energy-saving performance of homes as a means of realizing a carbon-free society, and in response to the growing demand for vinyl windows, we plan to increase the rate of high thermal insulation windows to 84% in FY2023. In terms of product development, we will strengthen products that offer energy saving and disaster prevention/mitigation, as well as value proposals and high-value-added products with advanced functions such as the “M30 Facial Recognition Automatic Door.” In addition, alongside housing providers nationwide, we contribute to the creation of quality homes in the stock housing market through performance-enhancing renovations. In order to meet an increasingly diverse range of needs, we will also promote collaboration among production, sales, and technologies, and strengthen our product appeal. In the home builder (prefabrication) sector, we will work to improve business partner and customer satisfaction by evolving our products, such as aluminum-vinyl composite windows. In the modular bathroom sector, we are working to further evolve existing bathroom doorway products, as well as products for non-residential properties and condominium renovations.

## Main initiatives

### Promoting high thermal insulation windows and further strengthening vinyl window production capacity

The standards for insulation performance in the Housing Performance Indicator System have been revised, with new higher grades, 5, 6, and 7, established starting in FY2022. In response to this, and in light of the demand for more energy-efficient housing, we are strengthening our production system for vinyl windows as well as promoting the use of high thermal insulation windows. In August 2022, a new APW 330 non fire-resistant vinyl window production line was added to the Namerikawa Plant (Namerikawa City, Toyama Prefecture), and in September the same year, a APW 430 non fire-resistant vinyl window production line was added to the Tohoku Plant MADDO (Window) Factory (Osaki City, Miyagi Prefecture). Building on a supply system designed to meet demand in the area, we are making further efforts to strengthen our vinyl window production capacity.



Namerikawa Plant (above) and Tohoku Plant (below), where production lines have been expanded.

### Launch of the “Association of Regional Home Builders Engaged in Building High-Performance Homes with Vinyl Windows”

In August 2022, we launched the “Association of Regional Home Builders Engaged in Building High-Performance Homes with Vinyl Windows,” a group of Regional Home Builders across Japan that build high-performance homes using the APW vinyl window series and meet thermal insulation performance grades 5, 6, or 7. Regional Home Builders that have enrolled in the association are listed on the official YKK AP website as “APW Authorized Home Builders,” and the status of their compliance with the new higher grades is shown. The site is being used to help find high thermal insulation-focused builders who use the APW series of vinyl windows as standard.



### Strengthening production capacity for inner windows in response to the 3-ministry subsidy scheme Expansion also underway in sales channels and installers

In order to meet the demand for window remodeling under the “Housing Energy Conservation 2023 Campaign,” a subsidy scheme jointly undertaken by the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of Economy, Trade and Industry, and the Ministry of the Environment to help achieve carbon neutrality by 2050, we are enhancing our production capacity for inner windows. By enhancing the production line through changes in alternating work shifts and increases in personnel and equipment capacity, production capacity has increased three-fold. In addition, we have a dedicated sales representative at each of our sites to promote national policies, conduct awareness-raising activities, and expand our sales channels. In addition to expanding the number of installers at architectural product distributors and training them, we are also expanding our scope to include other industries and carpenters, as well as promoting the “creation of installers” by packaging installation training programs.



Mado Remo - PLAMADO U Inner Window

# Commercial Business

## Creating beautiful and functional urban spaces

Through the exterior design of office buildings and condominiums, and by responding to the need for high thermal insulation performance and added value that contributes to decarbonization, we are helping to shape urban landscapes. Moreover, through business development based on business models tailored to individual countries and regions, we also provide facade systems that are optimized to meet specific applications and needs.

## Main products

- ◎ Commercial windows
- ◎ Curtain walls (custom and standard)
- ◎ Commercial entrances
- ◎ Windows and doors for multi-family residences
- ◎ Remodeling products



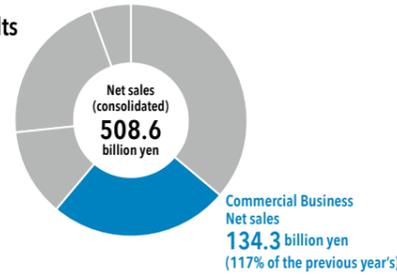
## Our strengths

- Strong product appeal long recognized by users
- Sales capabilities provided by a nationwide network and proposal capabilities to make highly complex facades a reality
- Technical capabilities that enable us to handle high-difficulty properties and solve problems in building exteriors as the situation demands
- A flexible production system with global manufacturing sites

## Market environment and social issues

In the new construction sector, multi-family residences are expected to decline due to the declining birthrate and aging population, while non-residential properties are expected to decline slightly going forward, despite the recovery from the COVID-19 pandemic. On the other hand, the renovation sector is expected to remain strong, as the number of stock multi-family residences more than 35 years old and due for renovation is increasing, while in non-residential properties, educational facilities will peak in the next 10 years due to the extended service lives of schools. In the field of large-scale, highly complex facades, demand for "green facades" to produce green building walls, as well for renovations, is expected to increase in Japan and other developed countries, while in emerging countries, demand for new construction is expected to grow as a result of ongoing urbanization. Social issues include rapid changes in the market due to soaring material prices, labor shortages due to the aging of skilled workers, and the need to address carbon neutrality and decarbonization. To solve these issues, we are working to shorten installation periods, improve productivity, save labor, and reduce CO<sub>2</sub> emissions over the entire lifecycle of a building.

## FY2022 results



## The situation in FY2022

In the new construction sector, we strengthened our customer contact points by reinforcing our sales development system, and in the renovation sector, we stepped up proposals for service life-extension renovations, especially for non-residential educational facilities. In addition to real-world proposals at "AZ five TOKYO" and "PROPOSAL 8th," we have enhanced our remote proposals through such methods as LIVE presentations, 360-degree VR, and web exhibitions. These efforts resulted in strong orders, and overall net sales in the commercial business were 117% of the previous year's level.

## Future strategies

We are focusing on strengthening in the Tokyo metropolitan area and enhancing remodeling projects. As a measure to strengthen in the Tokyo metropolitan area, the manufacturing and supply system for this region will be reorganized at the new Saitama Factory building, which will start operation in July 2023. We will strive to improve our services by increasing productivity and further shortening lead times. For sales measures, we will further strengthen our sales development system and customer contact points. In terms of product measures, we will launch aluminum-vinyl composite windows in September 2024 and gradually expand them in order to achieve greater levels of high thermal insulation performance in buildings. In addition, we are developing "unitized CWs for mid-rise buildings" as a high value-added product, and will work to create, promote, and expand the market by emphasizing quality and labor-saving features. To enhance our efforts in the renovation sector, we will use various subsidy schemes to promote the creation of a market for large-scale remodeling of multi-family residences. Furthermore, based on our track record of safely and reliably providing large-scale, highly complex facades and our technical capabilities, we will use "unitized CWs for super high-rise buildings" as a focal point for stepping up our domestic and overseas operations, while also expanding our human resources and manufacturing sites. In the latter half of the 6th Mid-term Management Plan, we will promote the establishment of a global supply chain system and infrastructure, starting with enhancing CW supply in Asia.

## Main initiatives

### New building begins operations at the Saitama Factory, reorganization of the manufacturing and supply system

We acquired a site adjacent to the Saitama Factory (Misato Town, Saitama Prefecture) and constructed a new building as a manufacturing site for aluminum architectural products for commercial buildings. The groundbreaking ceremony was held in June 2022, the completion ceremony in May 2023, and operations began in July 2023. Making this the core plant for our Commercial Business, we then reorganized our manufacturing and supply system to increase our competitiveness in the Tokyo metropolitan area and other areas in eastern Japan. By consolidating production with more efficient equipment provided by the Machinery & Engineering Department, expanding automated processes, and establishing production lines linked to data, the new plant will reduce manufacturing costs by 25% relative to our existing factories. In addition, through measures including logistics reforms such as unit loading, the lead time from order placement to delivery will be reduced by 6 to 11 days.

Based on the concept of "a factory fulfilling to work in," the building will reduce CO<sub>2</sub> emissions by 30% through the use of a high thermal insulation outer skin, windows with excellent thermal insulation performance and ventilation, dimmer-equipped lighting, and high-efficiency air conditioning.

Furthermore, solar power generation and the procurement of renewable energy will enable it to achieve CO<sub>2</sub> emissions of effectively zero. Moreover, through the use of rainwater, we aim to make this a factory friendly to both the global environment and its workers. Other facilities include a rest area, open to the public as a place for neighborhood residents to relax, established on part of the site.



Saitama Factory new building

### Established a "Global Curtain Wall Business Division" to enhance cost competitiveness and expand sales

In April 2023, the Global Curtain Wall Business Division was established with the aim of strengthening the curtain wall business in Japan and overseas, taking as its focal point "unitized CWs," in which glass and panels are integrated and unitized at our plants and factories. Our goal is to accelerate business development by enhancing our expertise in manufacturing, sales, and engineering, creating global opportunities for our employees and CDPs for our engineers. As well as enhancing our operations by horizontally deploying collaborative know-how, we aim to grow our business by expanding and optimizing our human resources and manufacturing sites.

This will serve to strengthen cost competitiveness and expand sales of unitized CWs in the High Rise Building Division, which serves the Japanese market, as well as in overseas companies. In addition to strengthening operations by

horizontally deploying the know-how cultivated in the CW business, we will expand and optimize our resources, including human resources, manufacturing sites, and suppliers. We will first focus on strengthening operations and business growth in Japan and the rest of Asia, with a view to expanding into North America and Europe in the medium term.



Installation of a unitized CW in progress

### Strengthening proposal capabilities, appeal, and target products to expand the commercial building renovation market

In the commercial building renovation market, we will create demand for large-scale remodeling by strengthening proposals for windows and entrance doors for the growing stock of multi-family residences over 35 years old and due for renovation, as well as by actively taking advantage of various subsidy schemes. Meanwhile, we will also sustain and enhance our proposals for service life-extension renovations for non-residential educational facilities. In terms of measures to strengthen our products, we

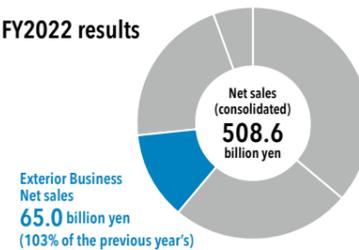
will expand our "APSWORD NEO-LB" aluminum-vinyl composite windows for low-rise buildings, which use the "GRAF installation method" exclusively for renovations, in September 2023. This will be followed from FY2024 onward by the launch of new aluminum-vinyl composite windows that can be used for mid- and high-rise buildings. In so doing, we aim to promote and intensify the conversion of commercial buildings to high thermal insulation performance in the renovation sector too.

## Exterior Business

### Proposing spaces that make living more comfortable

We will create new value by deploying products that unite "house" and "garden." We offer exterior products that allow total coordination of the premises to suit the customer's lifestyle.

### FY2022 results



### Main products

- ◎Balconies
- ◎Carports
- ◎Gates & fences
- ◎Terraces
- ◎Exterior materials

### Our strengths

- Fully coordinated proposal capability for buildings and exteriors
- Creating markets through proposal-based products for comfort in buildings and exteriors and garden space
- Ensuring ease of selection through the development of a product system for luxury, mid-range, and regular product types

### Market environment and social issues

The wall exterior market has been particularly sluggish due to a decline in new housing starts and rising construction costs resulting from soaring material prices, and the effects of these rising material prices have been reflected in surging commodity prices and reduced budgets for building exteriors. Responding to social issues requires product development and production systems for a carbon-neutral society, product development that supports disaster prevention and mitigation and easy installation, and assurance of sustainable product quality.

### Main initiatives

#### Opening of new exterior exhibition space

The YKK AP Exterior Exhibition Hall was opened in August 2022 in the YKK60 Building (Sumida-ku, Tokyo). The permanent exhibition features a lineup of exterior products such as gates, fences, carports, and so on, presented on a full-size building, allowing professional users such as exterior sales and installation companies to see the actual products and learn about their structures, functions, and other key selling points. As such, it serves as a base for making proposals to professional users.



YKK AP Exterior Exhibition Hall

### FY2022 Business overview and future strategies

In FY2022, the wall exterior market declined due to a drop in new housing starts and the impact of soaring material prices, yen depreciation, as well as rising consumer costs resulting from increased economic activity and market recovery. However, sales of exterior products such as gates and fences remained strong due to the strengthening of fully coordinated proposals including windows and doors and of cityscape proposals focused on homes built for sale. In addition, demand for folded-plate roof carports, which are designed to resist wind pressure and snow buildup, expanded to include non-snowy regions, and net sales exceeded market conditions to reach 103% of the previous year's level.

The exterior business will continue strengthening its organization and systems corresponding to sales channels, based on a policy of "boosting sales by providing fully coordinated proposals for buildings and exteriors." In the fields of new construction, exterior construction, and remodeling, we will thoroughly bolster existing sales channels and strengthen sales. For custom-built residential homes, we will offer value-added proposals through all-inclusive building and exterior designs, and for homes built for sale, we will promote proposals that integrate buildings and exteriors into a unified cityscape. We will also further strengthen our supply system and production site system to expand our business.

## Industrial Products Business

### Supporting the industrial sector with aluminum profiles

We provide high-quality extruded aluminum based on our knowledge of materials, profile designs, extrusion molding, surface treatment, processing, etc., and the advanced technology capabilities we have developed in the manufacturing of aluminum building materials.



### Main products

- ◎Components for machinery equipment
- ◎Auto parts
- ◎Architectural components
- ◎Sustainable products

### Our strengths

- Integrated production from casting, extrusion to surface treatment at four manufacturing sites in Japan
- Ownership of large 14-inch (6,500 tons) and 10-inch (4,000 tons) extruders

### Market environment and social issues

In terms of demand in the construction sector, we forecast that conditions will remain difficult due to the significant impact of the sluggish growth in new housing starts. Demand in the automotive sector is expected to recover as the shortage of semiconductors moves toward resolution, although there is a sense of uncertainty due to the impact of the global political situation. Social issues include the need to reduce greenhouse gas emissions in aluminum production and raw material procurement in order to realize a carbon neutral society by 2050, and to address the high dependence on overseas resources, the price and supply of which are heavily influenced by global conditions.

### FY2022 Business overview and future strategies

The aluminum extrusion market continued to face challenging conditions, with the number of new housing starts remaining weak and the automotive and other industries continuing to experience difficulties in procuring parts, resulting in a full year of lower sales than in the previous year. Given these conditions, we were successful in expanding our sales share, leading to year-on-year sales growth, especially in our core sector of construction. Net sales were 122% of the previous year's level, due in part to the impact of higher aluminum ingot prices.

With no significant growth in underlying demand for construction expected in the future, we aim to expand our business as the manufacturer of choice through proposals that lead to the sustainable growth of our business partners. For the automotive sector, we forecast significant growth in line with the growing demand for electric vehicles going forward. Since this is a field that requires advanced technology, we aim for further growth by reliably meeting the needs of our customers alongside our highly specialized engineers and manufacturing staff. To realize these growth strategies, we will also continue to develop human resources capable of providing value to our business partners and society.

# Overseas AP Business

## Operating businesses rooted in individual countries and regions

The requirements for architectural products such as windows, doors, and curtain walls differ from country to country and region to region due to varying climates, cultures, and other factors. Since establishing our first overseas company in Singapore in 1976, we have expanded our business to 11 countries and regions, meeting the needs of each through locally based business operations.

## Our strengths

- Global operations in 11 countries and regions, primarily in North America, China, and Asia
- Product development tailored to the climate and culture of the countries and regions in which we operate, combined with local manufacturing and sales systems
- A system for providing technical and manufacturing support from Japan

## Market environment and social issues

Growth in the North American commercial building market is slowing, and new housing starts continue to weaken due to government interest rate hikes and other factors. However, the Chinese real estate market (luxury market) is recovering due to easing of regulations, a measure to break out of the prolonged recession in housing. Taiwan's housing market is shrinking, but Indonesia's has remained strong.

In terms of addressing social issues, we will contribute to the reduction of CO<sub>2</sub> emissions through high thermal insulation products such as StyleView® in the U.S.A. and the LD Series in China. In addition, we will help mitigate against wind and flood damage through high water-tightness and disaster prevention/mitigation products such as the YRB Series in Taiwan, NEXSTA in Indonesia, and IWIN-S in India. In addition, our easy-installation products will help address shrinking labor forces, and our ventilation products will help create healthy and comfortable living spaces.

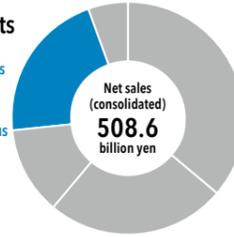


"NEXSTA"

"IWIN-S"

## FY2022 results

Overseas AP Business  
Net sales  
**115.8 billion yen**  
(145% of the previous year's)



## The situation in FY2022

Sales of commercial architectural products in the U.S.A. were strong on the East Coast, and efforts were undertaken to strengthen our services in the Midwest and West. To support increased sales of residential architectural products we have begun construction of a new plant with an integrated production system, which is scheduled to start operation in January 2024. In terms of domestic demand in China, sales increased due to the development of new customers through the introduction of mid-price range housing market products and the expansion of remodeling channels. In Taiwan, sales were strong in the luxury residence market, and efforts were also made to develop the central and southern areas. In Indonesia, sales increased due to the development of new channels and the introduction of new products. In India, sales also increased significantly due to the strengthening of the supply system for profiles, reaching a record high. As a result of these efforts, the overseas AP business as a whole achieved an increase in both revenues and profits, and the proportion of net sales accounted for by overseas sales grew from 14% to 17%.

## Future strategies

In order to further expand our business, we will strengthen both our product appeal and our manufacturing and supply system by introducing new products in our existing businesses. By expanding sales channels/areas in conjunction with this, we aim to achieve stable growth. In addition, we will proactively and flexibly develop new businesses and new markets. Meanwhile, in terms of the overseas AP business as a whole, we will advance the development of human resources to support the business and strengthen our response to sustainability issues. We will also further strengthen cooperation between related divisions in Japan and overseas companies, and work to evolve a business model appropriate to each country and region in terms of sales, products, manufacturing/supply, and management administration. By combining the collective wisdom of all our divisions, both in Japan and overseas, and by speeding up the execution of our business, we will grow the overseas AP business into the core business of YKK AP.

## Main initiatives

### Construction of a new plant for residential vinyl windows in the U.S.A. Productivity to grow to 212% of the previous level

YKK AP AMERICA INC. is building a new plant for residential vinyl windows on a site it acquired in Macon-Bibb County, Georgia. The purpose of this construction is to increase sales of residential vinyl windows in its sales area of six southern states in the U.S.A. to strengthen production and supply capabilities, and build a production and supply system with a competitive market advantage, thereby establishing an integrated production system from vinyl materials to assembly. Automation technology, which has been adopted in Japan for the APW Line for the production of vinyl windows, will be rolled out in the new plant to increase productivity to 212% of the previous level. What is more, the building also reduces CO<sub>2</sub> emissions by improving energy efficiency through natural lighting and thermal insulation of its roofs and walls. In addition, we are considering the phased introduction of energy creation technologies in order to achieve carbon neutrality. Automation and manpower reduction for work involving heavy loads within the production line, as well as during the

warehousing and shipment processes, will also be carried out to create an environment that is friendly to workers. YKK AP's manufacturing functions in Macon, which are currently dispersed over two locations, are scheduled to be transferred to the new plant after it begins operations in January 2024.



Conceptual diagram of YKK AP AMERICA INC.'s new plant

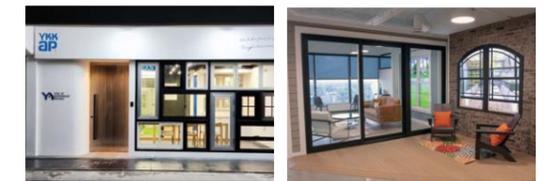
### Strengthening the presence of showrooms in each location to create business opportunities

We are expanding showrooms around the world as bases for introducing our products to a wider audience. In FY2022, we renovated our showrooms in Bangkok (Thailand), Kaohsiung (Taiwan), and Jakarta (Indonesia), and in FY2023, we renovated our showroom in Atlanta (U.S.A.). In Indonesia, YKK AP Experience Studio, a showroom for end-users, primarily custom-built home owners, opened in December 2022, attached to the Jakarta sales office, which was relocated to central Jakarta. It has six exhibition spaces, including a water-tightness performance experience area. By creating further business opportunities, we will contribute to increasing the value of buildings in many different regions.



Bangkok

Kaohsiung



Jakarta

Atlanta

### Completion of the CapitaSpring super high-rise facility in Singapore

CapitaSpring, a large-scale, super high-rise mixed-use facility in the heart of Singapore, with an exterior built by YKK AP FACADE PTE. LTD., was completed in February 2022. The 280-meter-high, 51-story building has an striking facade that weaves organic curved shapes and greenery from plantings into the straight, inorganic exterior surfaces. In addition, by creating green spaces throughout the building, it has obtained a Platinum rating, the highest level of the BCA Green Mark, which is the leading environmental performance index for buildings

in Singapore. Design, procurement, installation, and quality control took place during the COVID-19 pandemic, when there was a shortage of personnel on site and government mandated safety control measures had to be met.



# Initiatives in the Value Chain

YKK AP operates from a perspective of sustainability, based on the YKK philosophy of the “Cycle of Goodness,” and the company’s Purpose.

By creating added value in each of our monozukuri activities and proactively addressing various issues in the infrastructure that supports these activities, we hope to contribute to solving social issues and achieving the SDGs, and to be a company that builds a better society through our business.

→ YKK Philosophy  
Cycle of Goodness  
P4

→ Purpose  
P5

## Research, Development and Verification

### Three technical facilities and the Central Testing Center Laboratory

The YKK AP R&D Center, Value Verification Center, and Partners Support Studio, all located in Kurobe City, Toyama Prefecture, are responsible for the cycle of development, evaluation and verification, technical proposals, and information communication that form the foundation of YKK AP’s monozukuri process. The YKK AP R&D Center is a center of technology and expertise which develops high-quality products. The Value Verification Center conducts “user verification” using consumer monitors and “field verification” that reproduces the natural environment. Finally, the Partners Support Studio presents proposals aimed at addressing the issues of professional users, based on our technology. Furthermore, the Central Testing Laboratory, a JNLA testing laboratory that meets international standards, reinforces our product quality assurance system through rigorous testing.

### Global R&D organization

YKK AP has also strengthened its global research and development system. In addition to Japan, R&D centers have

been established in Germany and Indonesia to conduct research and studies in different regions: Japan for warmer regions, Germany for colder regions, and Indonesia for hot and humid regions. This information is compiled and shared to develop products optimally suited to each region.

At the YKK AP R&D Center (Germany), we investigate and research innovative European technology in the fields of energy conservation architecture and building materials, and promote high added-value in windows and doors through functional parts, thermal insulation of windows and doors, and frames and glass, etc.

At the YKK AP R&D Center (Indonesia), we conduct investigations, research, and development related to energy conserving construction methods and windows and doors suited to hot-humid regions, as well as research on passive design (the design of comfortable living environments that utilize natural energy). As part of a joint industry-government-academia research project on “energy-conserving multi-family residences for middle-income residents,” we are measuring the effectiveness of using windows and entrance doors that provide

→ Intellectual Capital  
P17



“WIDE VIEW SLIDING” product for wide openings (NEXSTA series)

effective ventilation. In October 2022, we launched “WIDE VIEW SLIDING” in the NEXSTA series for luxury custom-built homes to meet the need for products for wide openings. Taking advantage of our knowledge of technological development in Japan in areas such as design and component structure, we ensure the necessary performance required in the areas where our products are used.

### Technical Research Division initiatives

Technical Research Division, established in FY2023, is responsible for technology, research, and development from a global perspective. It is working on technology, research, and development for new technologies and new materials, including the development of recycling technology to achieve a 100% aluminum recycling rate and the development of organic materials to become carbon neutral. It is also striving to advance our technologies in existing areas, such as building technologies for ultra-high thermal insulation glass. Moreover, through joint research with external research institutions, efforts are underway to promote the development and exchange of human resources.

→ Details of the YKK Group Procurement Policy, YKK AP Basic Policy on Green Procurement, and the Partnership Building Declaration are presented on the website. <https://www.ykkap.co.jp/company/en/sustainability/procurement/>

## Materials Procurement

### Procurement Policy and CSR Procurement

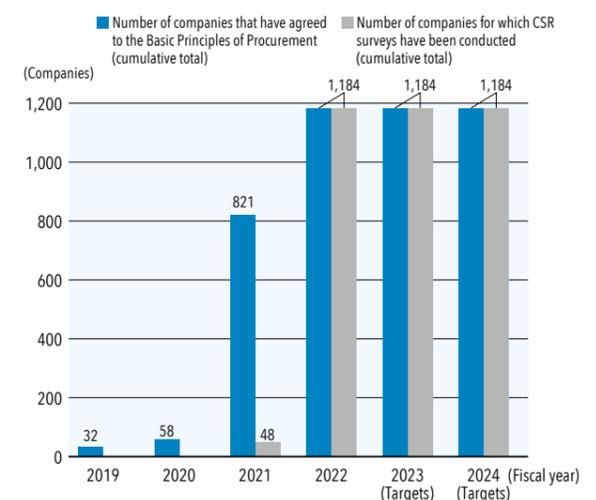
The YKK Group has a procurement policy consisting of organizational governance and human rights. In order to conduct CSR procurement based on this policy, we have established a set of “Basic Transaction Principles” that explicitly stipulate compliance with laws and regulations and fair transactions. By FY2022, we had concluded agreements with 1,184 major business partners, achieving our FY2024 target for the number of agreements in place. In addition, in FY2022, we conducted a CSR questionnaire at all of our business partners with whom we have concluded agreements to confirm the status of their initiatives. Going forward, we will administer the questionnaire to our major business partners and those that handle particularly important materials and parts.

YKK AP also conducts “green procurement,” which involves prioritizing the purchase of environmentally friendly materials in accordance with the “YKK AP Basic Policy on Green Procurement.”

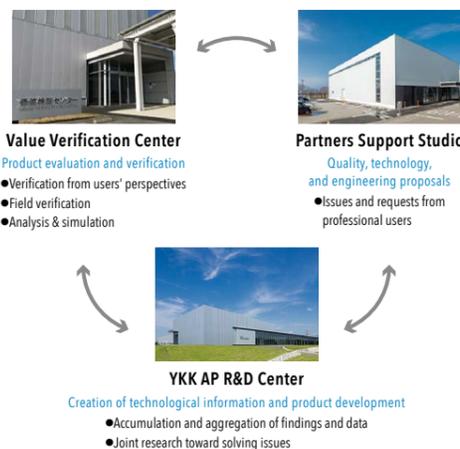
### Partnership Building Declaration

In keeping with the YKK Philosophy, Management Principle, and Purpose, we are strengthening our partnerships with suppliers and business operators in the supply chain with the aim of fulfilling our social responsibilities. In June 2022, we drew up and announced the “Partnership Building Declaration” with the aim of building relationships of co-existence and mutual prosperity.

### CSR Procurement Promotion Goals



### Three technology facilities



### Global R&D organization



## Manufacturing and Logistics

### Integrated production system

Upholding the spirit of YKK founder Tadao Yoshida, who laid the foundation for the company's integrated production system, YKK AP has integrated all monozukuri processes at its own manufacturing sites in Japan and overseas.

Currently, we are working to further enhance our technological competitiveness through seamless and rapid collaboration between our development and manufacturing departments and Machinery and Engineering Department, which is responsible for the development and manufacture of specialized equipment to make our products. In addition, we are rolling out technology developed in Japan to overseas markets, as shown by the introduction of the labor-saving APW line, a vinyl window manufacturing line used in Japan, to the residential vinyl windows plant being built at YKK AP AMERICA INC. Going forward, we will pursue a shift to smart factories and aim to improve productivity through DX.

### Health and safety

Another important issue is to create a safe and healthy workplace for employees involved in manufacturing. We are creating a stress-free and fulfilling workplace by installing air-conditioning equipment and air-conditioned clothing to combat heat, and improving the environment of the cafeterias and restrooms. To enhance safety, we also continue to conduct regular equipment and machinery safety audits every three years to ensure the intrinsic safety of our equipment. In addition, since FY2021, we have been identifying and improving "shortcut behaviors" and "troublesome tasks" in the workplace in order to eliminate all unsafe practices. Starting in FY2023, we will provide training to workplace leaders to incorporate hazard prediction into their training, further strengthening safety awareness.



→ [Integrated production system](#)  
P18

→ [YKK Philosophy, Management Principle, Purpose](#)  
P4-5

→ [Smart factory](#)  
P41

### Logistics

The so-called "2024 problem" will arise in April 2024, when an overtime limit for truck drivers will be imposed. YKK AP began developing new pallets in FY2016 to improve delivery efficiency. In FY2019, we endorsed the "White Logistics" campaign initiated by the Ministry of Land, Infrastructure, Transport and Tourism, aiming to promote logistics efficiency and productivity improvement to realize sustainable logistics.

Specifically, we have introduced a "unit load" system that efficiently transports cargo in units such as pallets and containers, enabling efficient loading and unloading that does not rely on driver experience and intuition. In addition, Y-Caps, a proprietary system designed to efficiently load pallets onto truck beds, identifies the optimal combination of products and pallets to improve truck loading efficiency and enable optimal dispatch management. Moreover, in order to reduce work hours associated with various logistics processes, we are pursuing sustainable logistics through joint transportation with other companies, thereby reducing drivers' time commitment.

## Sales

### BtoC and BtoB activities

For end-user customers and professional users, we provide information on safe, secure, healthy, and comfortable homebuilding through our showrooms and web content. Furthermore, since 2002, we have maintained a business alliance in the remodeling field, the "TDY Alliance," with TOTO Ltd. and DAIKEN Corporation. Information on remodeling is delivered through 13 collaborative showrooms nationwide, fairs and events, as well as a joint website.

### SE (Sales Engineers)

One of our greatest strengths in terms of proposal capability is our sales engineers (SE), who make technical proposals together with sales representatives. Our 49 sales engineers belong to the Product Development, Residential Business Department in Product Research & Development Division, and are located at 10 sites in Japan. Our proposals are based on our knowledge of housing as a whole, and are designed not only for new construction but also for the revitalization of the market for stock housing. We also provide information to help address the requests and problems of professional users, tailored to the characteristics of individual regions, such as verifying the value of shutters in snowy areas.



Unit loading facilitated by the introduction of the proprietary Y-Caps system



Shutter side pressure verification using reproduced snowfall

→ [Details of customer satisfaction initiatives are presented in our Sustainability Databook. \(in Japanese only\)](#)  
<https://www.ykkap.co.jp/company/jp/sustainability/data/social/>



Saitama MADO (Window) Plant

## Installation

### FE (Field Engineers) and the FTC

The Field Technical Center (FTC), located in Fabrication Technology Department in the Manufacturing Division, provides technical support to enhance the competitiveness of distributors, who serve a variety of functions in the completion of building homes, as well as providing training and guidance on assembly and delivery to ensure product quality. Assigned to the FTC are 39 FEs, engineers who are active on the front lines of installation sites, working at 14 locations nationwide. Currently, the FTC is expanding its educational programs for FEs, responding to requests for improvement from installation sites, and supporting sales expansion by enhancing installation training for remodeling products, thereby contributing to the improvement of our product appeal and technology capabilities.



Internal FE installation training

### Co-creation to improve installation quality in Japan and overseas

In 2013, YKK AP established the "Installation Skills Training Academy" in collaboration with the "YKK AP Group Installation Cooperative," which consists of sash and curtain wall installation specialists with advanced installation skills, in an effort to transfer skills and develop human resources. The academy trains installation technicians for a minimum of six years, and a cumulative total of 311 young technicians have participated in the program as of FY2022. Overseas, we have established installation training centers and conducted installation training in China, Taiwan, and Indonesia to support the improvement of local installation technicians' skills.



On-site installation training in Taiwan

### Labor-saving in installation work

With the aging of installation technicians and the increasing workload at construction sites, the FTC is also working to save labor in installation through the development and operation of installation jigs. The "Folded Plate Lifting Roller" provides support for lifting folded plates, the material used for roofing carports. Other new developments include a "diamond cutter dust collection cover" that improves safety and the working environment for installation technicians with its superior dust collection performance, and a "simple hand crane" that assists in the loading and unloading of trucks.



Installation using the "diamond cutter dust collection cover" (top right)

## Product Use

### Providing information to customers

In accordance with its Product Safety Basic Policy, YKK AP is committed to providing information to ensure that customers can use its products safely and with peace of mind. In addition to paper manuals, QR codes are printed on product labels so that customers can easily access usage, care, and traceability information.

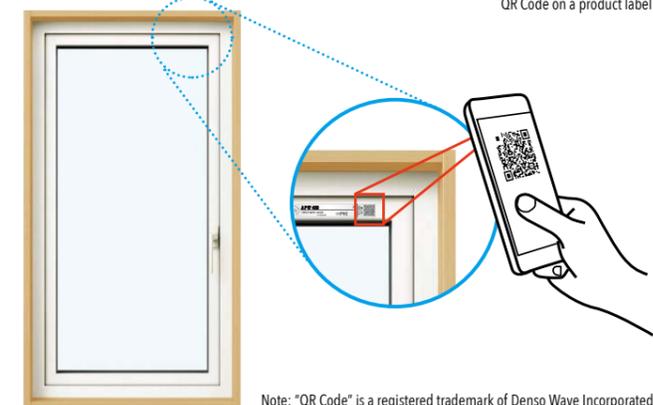
In addition, the official YKK AP app "AP Poke Navi" offers push delivery and provision of information on how to use and care for products, as well as on preparing for disasters such as typhoons and heavy rain.



Providing support information through the "AP Poke Navi" app



QR Code on a product label



Note: "QR Code" is a registered trademark of Denso Wave Incorporated.

### Maintenance support

To ensure long and safe use of our products, we aim to improve the quality and consistency of our maintenance support. The Maintenance Business Development Department in Residential Business Division takes the lead in sharing information with the Maintenance Centers in each region. Further, we launched the YKK AP Certified Maintenance Technician Association to certify installation technicians with superior skills, and by having them join the association, we are strengthening our maintenance support capabilities through technical training and other programs. In addition, we are working on the maintenance of electric equipment using digital tools.

\*No. of Certified Technicians: 541 (as of June 1, 2023)



Maintenance of electric equipment using digital tools

# Financial and Non-Financial Data

## Key Consolidated Financial Data

	FY2020	FY2021	FY2022	FY2023 (Plan)	FY2024 (Plan)
Net sales (consolidated)	402.8 billion yen	446.3 billion yen	508.6 billion yen	547.9 billion yen	544.0 billion yen
Japan	353.2 billion yen	388.6 billion yen	425.7 billion yen	458.4 billion yen	459.9 billion yen
Overseas	66.2 billion yen	79.7 billion yen	115.8 billion yen	116.8 billion yen	107.9 billion yen
Overseas ratio	13%	14%	17%	17%	16%
Operating income	20.9 billion yen	17.3 billion yen	17.8 billion yen	27.6 billion yen	38.6 billion yen
Operating income margin	5.2%	3.9%	3.5%	5.0%	7.1%

	FY2020	FY2021	FY2022	
Profit and loss	Ordinary income	23.0 billion yen	18.6 billion yen	21.3 billion yen
	Net income attributable to owners of parent company	21.3 billion yen	11.1 billion yen	15.2 billion yen
	Comprehensive income	48.3 billion yen	19.7 billion yen	27.6 billion yen
Financial status	Net assets	225.1 billion yen	241.8 billion yen	266.0 billion yen
	Total assets	389.7 billion yen	426.5 billion yen	455.8 billion yen
Financial indicators	Return on assets (ROA)	5.5%	2.7%	3.5%
	Equity ratio	56.9%	56.2%	57.9%
	Return on equity (ROE)	9.6%	4.8%	6.1%
Cash flow	Cash flow from operating activities	29.6 billion yen	26.9 billion yen	32.3 billion yen
	Cash flow from investing activities	△3.8 billion yen	△19.8 billion yen	△22.8 billion yen
	Cash flow from financing activities	△9.6 billion yen	△5.4 billion yen	△4.9 billion yen
	Ending balance of cash and cash equivalents	27.2 billion yen	31.7 billion yen	37.6 billion yen
Capital investments/ R&D expenses	Capital investments	14.8 billion yen	20.6 billion yen	29.6 billion yen
	R&D expenses	8.0 billion yen	9.0 billion yen	9.3 billion yen

\*Transactions with parties inside the Group have been offset in net sales (consolidated).

\*The overseas ratio is the proportion of overseas sales out of net sales to external customers.

\*The FY2024 plan is the mid-term plan developed in FY2021.

\*Return on assets (ROA) for FY2020 is calculated based on total assets at the end of the fiscal year, as this was the first year of consolidation.

\*Return on equity (ROE) for FY2020 is calculated based on ending equity capital, as this was the first year of consolidation.

\*Figures have not been audited by a certified accountant or audit firm.

\*The consolidated financial data for profit and loss, financial status, financial indicators, and cash flow have been reviewed by an audit firm since FY2021.

→ Details of Financial Data are presented in our Sustainability Data Book (in Japanese only)  
<https://www.ykkap.co.jp/company/jp/sustainability/data/basic-information/>

## Key Non-Financial Data

	FY2020	FY2021	FY2022		
Number of employees <sup>◇3</sup>	Japan	12,389	12,630	12,802	
	Ratio of men to women (Japan)	Men 74 % Women 26 %	Men 74 % Women 26 %	Men 74 % Women 26 %	
	Overseas	4,328	4,158	4,341	
Average age <sup>◇1</sup>	Men	43.7 years old	43.8 years old	44.2 years old	
	Women	41.0 years old	41.4 years old	41.8 years old	
Number of women in management positions <sup>◇1</sup>	Number of employees	110	113	122	
	Ratio	5.9%	5.8%	6.2%	
Rate of employees who take childcare leave <sup>◇1</sup>	Men	64.2%	53.2%	73.2%	
	Women	93.6%	97.5%	96.6%	
Employment rate of persons with disabilities (average for each fiscal year) <sup>◇1</sup>		2.35%	2.29%	2.32%	
Rate of mid-career hires <sup>◇1</sup>		20.0%	43.2%	43.3%	
Rate of employees who take paid leave <sup>◇1</sup>		60.9%	67.1%	71.3%	
Contributions to CO <sub>2</sub> reductions through high thermal insulation products <sup>◇2</sup>	vs FY2020	100%	117%	127%	
	Quantity	468 kt CO <sub>2</sub>	548 kt CO <sub>2</sub>	594 kt CO <sub>2</sub>	
Ratio of new constructions to remodeling projects <sup>◇2 *1</sup>	Residential	New construction	75%	77%	76%
		Remodeling	25%	23%	24%
	Commercial	New construction	76%	70%	69%
		Remodeling	24%	30%	31%
Rate of vinyl window use <sup>◇2 *2</sup>		29%	31%	31%	
Number of locations <sup>◇3</sup>	Japan	200 sites	201 sites	195 sites	
	Overseas	11 countries/regions	11 countries/regions	11 countries/regions	
Manufacturing locations <sup>◇3</sup>	Japan	24 sites	24 sites	24 sites	
	Overseas	11 sites	11 sites	11 sites	

Extent of Coverage

◇1: YKK AP (non-consolidated)

◇2: YKK AP Group (Japan)

◇3: YKK AP Group (Japan and overseas)

\*1 Based on net sales

\*2 Rate of vinyl window use in sales for single family homes

# Supported Initiatives and Key External Assessments

## Supported Groups and Initiatives

◆United Nations Global Compact/UNGC  
May 2021



◆Task Force on Climate-related Financial Disclosures/TCFD  
(Financial Stability Board) May 2019



◆SBTi/Science Based Targets initiative  
February 2021



◆Minister of the Environment-certified  
"Eco-First Company"  
(Ministry of the Environment)  
April 2023



◆Japan Climate Initiative/JCI  
June 2022

◆Partnership Building Declaration  
(Conference for the Promotion of Building Partnerships for the Future) June 2022



## Major Awards (awards received as a corporation)

◆KDLB 2022 Environmental Stewards Award  
(Keep Dublin Laurens Beautiful Organization)  
YKK AP AMERICA INC. Dublin Factory  
June 2022



◆Digital Popular Brand  
Platinum Award 2018-2022  
(INFOBRAND)  
Received the Digital Popular Brand Award for five consecutive years  
PT YKK AP INDONESIA, January 2023



◆Maintained certification as a Gold product safety companies  
(Ministry of Economy, Trade and Industry)  
January 2023



◆Top 10 Aluminium Products  
Manufacturers in India 2023  
("Industry Outlook" business magazine)  
Bhoruka Extrusions Private Limited, February 2023



◆The 11th Green Social Contribution Award  
(Organization for Landscape and Urban Green Infrastructure)  
Manufacturing Department, Tohoku Plant, March 2023



## Major Awards (awards received for products)

◆Good Design Award 2022  
(Japan Institute of Design Promotion)  
"famitto" interior door series  
October 2022



◆Most Desirable Architectural Products and Equipment  
Manufacturers Ranking 2022 (Nikkei Architecture)  
●Residential Window Sash: 1st Place for the 12th consecutive year  
●Residential Entrance Door: 1st Place for the 7th consecutive year  
●Commercial Building Aluminum Sash and Curtain Wall: 1st Place for the 18th consecutive year  
November 24, 2022 issue



◆16th Kids Design Award  
(NPO Kids Design Association)  
August 2022  
Designs to contribute to the safety and security from children



◆Manufacturer of the most desirable architectural products and facilities for use in an ideal home  
(Taiwan Architectural Aesthetics Culture and Economy Association; an incorporated association/ National Chengchi University College of Commerce Public Opinion and Market Research Center)  
Window Sash Category: 1st Place for the 11th consecutive year YKK AP TAIWAN CO., LTD  
November 2022



- Western-Style Blind "Outer Shade"
- "Lucias Fence" and "Simpleo Fence" block-built, high blindfold type
- Promotion of natural (Cross-opening) ventilation through the installation of inner windows for school facilities

Designs to support comfortable raising of children  
●"famitto" interior door series

◆2022 BLT Built Design Awards  
(3C AWARDS)  
YKK AP AMERICA INC., "YWW 60 XT"  
November 2022



◆Desirable Architectural Products Brand Award  
(China Real Estate Association)  
Window Category: Selected for the 12th consecutive time,  
YKK AP CO., LTD  
March 2023



# Company Outline

Corporate Name YKK AP Inc.  
Headquarters Address 1, Kanda Izumi-cho, Chiyoda-ku, Tokyo, 101-0024, Japan  
Capital 14.0 billion yen  
Foundation July 22, 1957  
Accounting Period March 31 of every year

## Affiliated Companies

### Domestic Affiliated Companies

YKK AP Okinawa Inc.  
Pros Inc.  
Iwabuchi Inc.  
YKK AP Ruxy Inc.  
Nitto Inc.

### Overseas Affiliated Companies

YKK AP AMERICA INC.  
ERIE ARCHITECTURAL PRODUCTS INC.  
ERIE ARCHITECTURAL PRODUCTS USA, INC.  
YKK AP (CHINA) INVESTMENT CO., LTD.  
DALIAN YKK AP CO., LTD.  
YKK AP CO.,LTD.  
YKK AP (SUZHOU) CO., LTD.  
YKK AP HONG KONG LIMITED  
YKK AP TAIWAN CO., LTD.  
PT YKK AP INDONESIA  
YKK AP MYS SDN. BHD.  
YKK AP (THAILAND) CO.,LTD.  
Bhoruka Extrusions Private Limited  
YKK AP FACADE PTE. LTD.  
YKK AP SINGAPORE PTE LTD  
YKK AP FACADE VIETNAM COMPANY LIMITED  
YKK AP Technologies Lab (NA) Inc.

## Memberships

Japan Sash Manufacturers Association  
Japan Building Openings Association  
Japan Construction Material & Housing Equipment Industries Federation  
Association of Living Amenity  
Japan Federation of Housing Organizations

Wooden Home Builders Association of Japan  
Japan International Association for the Industry of Building and Housing  
Japan - China Association for Building and Housing Industry  
Japan Aluminium Association, etc.

## Editorial Note

We produced the YKK AP Integrated Report 2023 to introduce our stakeholders to our initiatives to be a company that makes society a better place through its business activities, with the YKK AP Purpose, "We Build a Better Society Through Architectural Products," at its core. The report communicates YKK AP's value creation story in an easy-to-understand manner and provides a comprehensive summary of financial and non-financial information, including the values we offer to society and the strategies and business foundations that enable us to realize these values. Going forward, we will continue to reflect your opinions and ideas in our efforts to create a more comprehensive Integrated Report that will provide you with a better understanding of our company.

## YKK AP Integrated Report 2023

Extent of Coverage YKK AP Inc./  
YKK AP Domestic Affiliated Companies/  
YKK AP Overseas Affiliated Companies

Period Covered FY2022  
(April 1, 2022 - March 31, 2023)  
Note: Some of the information included in this report is from outside of the period covered.

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