

Integrated Report

2023

President

We're always aware of the purpose of our existence.
So when we hit a wall,
we automatically know which way to go.



Purpose

To continue contributing to
better living environments
through chemical technologies

Behind Our Purpose

Inheriting the Challenging Spirit and Providing the Indispensable

Vision 2030 and Sustainability Management

We, the ISK Group, have changed the direction to sustainability management with our long-term vision, Vision 2030. The world today is facing major issues such as extreme weather events and other effects of climate change, and food problems. The United Nations has established the Sustainable Development Goals (SDGs) as a set of goals to resolve these issues. As a member of the global community, we support and participate in this initiative in an effort to contribute to the realization of a prosperous future society through our business. Therefore, we set our purpose, in order to redefine the reason why we exist.

Our Founders Aims and Purpose

ISK Group's founder, Hiroichiro Ishihara, started many businesses with a desire to contribute to Japan and society. Despite the impact of wars and politics along the way, he was dauntless in his continued search for new paths and laid the foundations of our current inorganic chemicals and organic chemicals businesses.

“To continue contributing to better living environments through chemical technologies”

This purpose is the reason our group exists, which inherited Ishihara's challenging spirit. We provide society with the essentials for everyday life. Agrochemicals contribute to feeding the world's population, which will continue to grow. Titanium dioxide is indispensable for a rich, colorful life. Barium titanate is indispensable in capacitors, which is used in computers, smartphones, self-driving automobiles, and electric vehicles, and it will be used more wide field in the future. Our strength lies in our unique chemical technology and technological development capabilities. We have outstanding, one-of-a-kind technologies. Our path forward involves utilizing these strengths to provide the value and products society requires, or to create new ones if necessary. Our raison d'être is to use chemical technology to solve global problems and realize a better living environment. We base all our business activities on this purpose.

Vision 2030

Originality. Acceleration. Global Reach.
Transforming Lives Through the Power of Chemistry.

Stage I
FY2021-2023

Stage II
FY2024-2026

Stage III
FY2027-2029

Materiality
for
the ISK Group

Corporate Philosophy

Basic Philosophy

- Contribute to social development, protection of life and environmental preservation
- Respect shareholders, customers, suppliers, local communities and employees
- Abide by laws and regulations; maintain transparency in business activities

Code of Conduct

- At Ishihara Group, we will strictly observe laws, regulations, social norms and Company rules, while steadfastly adhering to high ethical standards, so as to gain social trust in our business.
- In manufacturing activities, we will place the utmost priority on global environmental protection, as well as on worker safety, and will work to prevent any workplace accident or disaster.
- On the basis of respect for human rights, we will promote mutual understanding and cooperation among employees, in order to create an open and friendly workplace.
- To maintain transparency in our business activities, we will promote communication with local communities and society, and will disclose corporate information in a timely and appropriate manner.

Purpose

To continue contributing to better living environments through chemical technologies.

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Message from the President

Thinking about the Model for Future Business

While revenue from our organic chemicals business is steadily increasing, our inorganic chemicals business is struggling due to factors such as rising raw material and fuel costs, indicating that the time has come to reconsider the model for our business. However, despite these challenges, we remain a company possessed of real ability and strength. "Purpose" will be the guiding compass in determining our future direction, and we will leverage our technological strength, which is our greatest strength, to continue providing the world with products which improve people's lives.

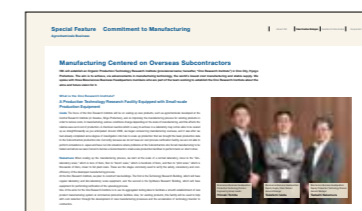
Special Feature Commitment to Manufacturing



Yokkaichi Plant

A Manufacturer's Responsibility To Make Exactly What the Market Needs

The Yokkaichi Plant is the flagship production base of our inorganic chemicals business. It has been the foundation of ISK manufacturing for a great many years going all the way back to its establishment in 1941. What is the plant currently committed to, what is it working on? We put these questions to Yoshiyuki Shinmyo, who, as Director of the Yokkaichi Plant, is the person responsible for its overall operation.



Agrochemicals Business

Manufacturing Centered on Overseas Subcontractors

ISK will establish an Organic Production Technology Research Institute (provisional name; hereafter, "Ono Research Institute") in Ono City, Hyogo Prefecture. The aim is to achieve, via advancements in manufacturing technology, the world's lowest cost manufacturing and stable supply. We spoke with three Biosciences Business Headquarters members who are part of the team working to establish the Ono Research Institute about the aims and future vision for it.

ISK Group: Making Each Day Better

ISK is a chemical company. Based on our corporate purpose, “To continue contributing to better living environments through chemical technologies” we provide the world comfort, convenience, and health through products such as paints and functional materials using titanium dioxide, and agrochemicals and animal health products made with organic compounds.

Comfortable Living Environment

More comfort

In fields such as housing and automotive, high-quality titanium dioxide paint suitable for a range of applications is responding to increasingly advanced needs. ISK is making people’s homes more comfortable through high-value-added products such as heat shield materials that reflect near-infrared rays, and photocatalyst material with a self-cleaning function.



TIPAQUE™ titanium dioxide

Used as a raw material for paint in numerous fields



Innovative Lifestyle Products

More convenience

We’re also making lives more convenient by supporting advances in IT through our products such as highly pure titanium dioxide used as material for things like condensers, super black material that absorbs more than 99% of light, and highly refractive material that realizes a high light refractive index and high transparency.



Highly pure titanium dioxide

Supporting information society through use as electronic component materials



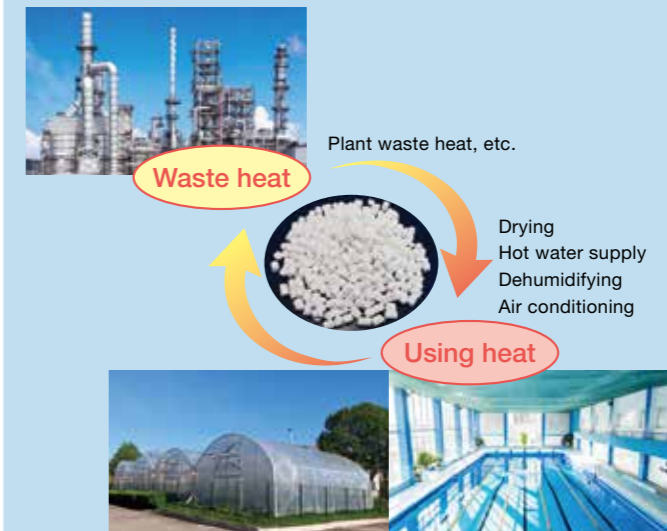
Inorganic Chemicals Business

Environmentally Friendly Products

More friendliness

Our totally new heat-storage material, HASClay™, stores heat when dry and emits heat when wet. When used for dehumidifying, heating, or drying processes in places like factories, it can dramatically reduce CO₂ emissions compared to obtaining heat by burning fuel.

Incorporating HASClay™ to reuse unused low-temperature waste heat



Organic Chemicals Business

Healthier

Ensuring a stable supply of agricultural products

ISK is a pioneer in chemical pesticides. We distribute a variety of agrochemical products in the domestic and international markets to make people's lives healthier—protecting their health and lives through food.



Our agrochemical lineup of mainly herbicides, fungicides, insecticides

Contributing to people's dietary life around world



Happier

Improving quality of life (QOL)

We make people's lives happier and livelier through animal health products that protect their precious partners and through blue phalaenopsis that adds color to their daily life.



BRENDA™ (animal health product)

Protecting the health of your precious animal companions

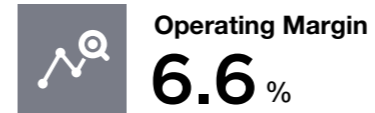
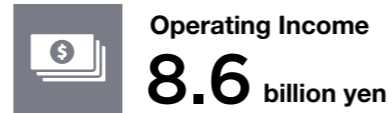


The world's first blue phalaenopsis Blue Gene™

Special colors that never fade away



Key Figures Fiscal year ended March 31, 2023



Europe

Net Sales **19.4** billion yen



Number of Group Bases **2**

Products



Asia

Net Sales **26.5** billion yen



Number of Group Bases **8**

Products



Japan

Net Sales **50.3** billion yen



Number of Group Bases **8**

Products



Americas

Net Sales **28.4** billion yen



Number of Group Bases **10**

Products



Others

Net Sales **400** million yen

Products



- Major countries and regions in each category
- Asia China, Taiwan, South Korea, Thailand, Indonesia, Singapore, India
- Americas U.S., Canada, Brazil, Argentina, Mexico
- Europe Germany, Netherlands, France, U.K., Belgium, Italy, Eastern Europe, Middle East
- Others Australia, New Zealand, Africa

- Pictograms representing major products
(The product with the highest sales in each region is shown in a larger size.)



Thinking about the Model for Future Business

While revenue from our organic chemicals business is steadily increasing, our inorganic chemicals business is struggling due to factors such as rising raw material and fuel costs, indicating that the time has come to reconsider the model for our business. However, despite these challenges, we remain a company possessed of real ability and strength. “Purpose” will be the guiding compass in determining our future direction, and we will leverage our technological strength, which is our greatest strength, to continue providing the world with products which improve people’s lives.

Executive Director and President
Hideo Takahashi



Our Aims

Organic chemicals business	Efficiently scale up production to achieve cost-competitiveness
Inorganic chemicals business	Perform a ground-up reconsideration of the ideal state for the Yokkaichi Plant
New business	Realize new business led by the Business Creation Committee
Environment	Reduce Group CO ₂ emissions (Scope 1 and Scope 2) 30% by 2030 compared to fiscal 2019

Our Efforts

Ongoing Consideration of Our Future Direction for the Sake of Realizing Better Living Environments

It has been three years since my appointment as president. In that time, ISK Group has undertaken a variety of efforts aimed at achieving our long-term vision, Vision 2030, and medium-term business plan, Vision 2030 Stage I (fiscal 2021–2023). Instead of a traditional, “defensive management” approach, I continue to encourage employees to be proactive, welcoming their ideas and suggestions. Also, in order to promote widespread awareness of Vision 2030, I visited each of our business sites in Japan where I held employee orientations. Perhaps as a result of this, I have noticed an increasingly positive and proactive mood taking hold in the company.

I have also worked to instill a widespread importance of “Purpose.” I am continually reminding employees to stay focused on why our company exists and what we are contributing. This mindset helps us, when they run up against a wall, to stay aware of, and focused on, the direction forward. We are not just about making and selling things for profit. I want us to always be thinking seriously about what direction we can take in order to improve people’s living environments through chemical technology. And by spreading to those outside the company that this is the sort of company we are, it will help us in securing higher quality human resources and to being seen as an attractive investment choice amongst investors.

Business Environment

Business Management Affected by the Weight of Global Changes

The business landscape for the ISK Group has changed significantly over the past three years. Fiscal 2021 saw the start of a recovery from the stagnation caused by the COVID-19 pandemic, with demand for titanium dioxide recovering particularly in the automotive and construction sectors. While we hoped this situation would last for a while longer, starting in fiscal 2022/ various factors appeared which continue to create an extremely difficult business environment; these include a tightening of supply and demand for semiconductors, production adjustments among automakers, who are major customers of titanium dioxide for paint, China and Asia’s worsening economic conditions, and rising resource prices caused by the prolonged Russia-Ukraine conflict. In the midst of all this, other challenges, such as competition with titanium metal manufacturers, have caused raw titanium ore prices to soar. Although we have raised product prices, this has not been enough to fully absorb the increase in raw material and fuel costs, thus putting pressure on profits. In contrast to this, our organic chemicals business has been growing, particularly in sales of fungicides and other flagship agrochemicals to the South American market as grain production centered on the Americas continues to grow due to stable food demand. As for our highly anticipated upcoming flagship products also, sales of our new herbicide expanded in the Americas, while sales of our new insecticide were strong in all countries. Thanks in part to favorable weather conditions and a weaker yen over the past few years, we have been able to generate significant profits which have allowed our organic chemicals business to fundamentally support our overall performance. However, I believe that achievement of Vision 2030 will require a fundamental rethinking of our business structure which includes new business.



Medium-term Business Plan, Vision 2030 Stage I

Expected Failure to Meet Profit Targets Due to Business Environmental Changes, Despite Achievement of Sales Targets

In the midst of all this, the ISK Group arrives at the last year of Stage I in fiscal 2023. In the first year, fiscal 2021, we achieved our target values in net sales, operating income, ROE and other metrics, but, due to business environmental changes discussed earlier, we did not meet our profit targets for fiscal 2022. We expect that the business environment will continue to be severe throughout fiscal 2023 as well; nevertheless, we are doing all we can to reach our performance targets.

Organic Chemicals Business

The Americas Tops Regional Sales of Agrochemicals

During this time, ISK Group has been focused on priority measures in each of our businesses. For example, in agrochemicals business our priority is cost reduction. Due to the nature of this business, it is not possible to continuously bring new agrochemicals to market within a short period of time. In fact, because new agrochemicals are expected to be released to the market in several years' time, we must work to maintain and grow our market share by creating mixed formulations of existing agrochemicals or changing them to new, easy-to-use dosage forms, or by expanding the scope of applicable crops or the sales regions. The key to achieving all of this is cost-competitiveness. Even newly developed agrochemicals will eventually face price competition from generic products; hence, cost direction will be fundamentally affected by advancement in production technology and how smoothly you can scale up production. One measure we have decided upon in order to achieve production innovation is the establishment of the Organic Production Technology Research Institute (provisional name) in Ono City, Hyogo Prefecture. We are currently preparing for the start of full-scale operations in the fall of 2025.

In addition, significant changes in regional sales have had an epoch-making impact on our agrochemicals business. Until last year, Europe had been the region which accounted for the majority of our sales, but, for this fiscal year, there has been an expansion in sales centered on new products, namely herbicides in the North American market and fungicides in the South American market, which has put the Americas at the top for regional sales. To achieve this reversal while still increasing sales in Europe is, in my opinion, a significant accomplishment.

For animal health products, our anti-inflammatory agent for acute canine pancreatitis, BRENDA™, which is well-received in Japan, obtained conditional approval* from the United States' Food and Drug Administration (FDA) in the fall of 2022 and was released to market in America in April 2023 as PANOQUELL™-CA1. It has been well-received since its release and has been steadily growing in sales. If the ongoing clinical trials confirm the drug's effectiveness and it becomes fully approved, we can expect to see even greater market penetration. In addition, we are moving forward with securing approval and pursuing commercialization in Europe and other major countries and territories; so, looking ahead to the future, we can expect to see billions of yen in sales. I believe this is a great opportunity.

*A system whereby new drug candidates for serious diseases for which no effective treatment exists can be approved without waiting for the results of clinical trials if they meet indicators of predicted therapeutic efficacy.

Inorganic Chemicals Business

Struggling with Rising Raw Material and Fuel Costs and Tackling the Challenge of Switching to Highly Functional, High-Value-Added Products

In our inorganic chemicals business, the primary challenge we have is to shift our product lineup from general-purpose products to highly functional, high-value-added products. To achieve this, we are focusing on establishing a mass production system and on developing new products. Our target is for 40% of sales to come from highly functional, high-value-added products. We have been unable to reach this target because price revisions caused by the weaker yen and higher cost of raw materials have expanded sales of general-purpose products. Also, despite an increase in sales, we had negative profit due to soaring raw material and fuel prices which caused cost increases to exceed price increases.

Electronic component materials including barium titanate and its raw material, high-purity titanium dioxide, are currently undergoing inventory adjustment.

However, as the market for multilayer ceramic capacitors (MLCC), which are the main application for them, is expected to grow steadily with the anticipated shift to electric vehicles, so that demand for our electronic component materials is expected to steadily increase.

For the manufacture of barium titanate, we have established MF Material (Nobeoka City, Miyazaki Prefecture) as a joint venture among three companies: Murata Manufacturing Co., Ltd., which is the largest manufacturer of MLCC, ISK and subsidiary of ISK, Fuji Titanium Industry, barium titanate manufacturer. The new plant is scheduled to start operation in 2027, with the main goals being quality stabilization and manufacturing cost reduction. We would like to tackle the challenge of process improvement while sharing the know-how that have been cultivated in each company up to date.

Yokkaichi Plant

A Plant with a High Profit Margin Which is Capable of Adapting to Market Changes

I do not believe that the current rise in raw material and fuel prices is a temporary phenomenon. Neither do I believe that titanium ore will return to its previous price, given the structure of the market, which is dominated by major ore companies. In order to ensure stable profits within a business environment subject to exchange rate and supply and demand trends, we must reconsider the very model that we use for inorganic chemicals business, which has been focused on general-purpose products. Thus, in May 2023, we established the Committee for Inorganic Business Restructuring to begin an unrestricted discussion that left no option off the table about how to transform our inorganic chemicals business model and reorganize our mainstay Yokkaichi Plant from the ground up. It just so happens that the Yokkaichi Plant has been in operation for more than 80 years and is at a point where it will need updates to its buildings and production equipment. I want to make sure that the plant is ready for these changes.

At ISK, we have technology which allows us to change the size and shape of titanium dioxide particles, and this has led to the creation numerous products which only we can manufacture. One example is a paint that achieves a glossy, pearly white color by changing the shape of the particles into a plate-like form. Only ISK is able to utilize titanium dioxide to produce such metallic or pearl colors. In addition,

we successfully manufacture conductive materials necessary for antistatic property and heat shielding pigments that contributes to energy savings by our proprietary technology to make titanium dioxide in rod-like form. The profit margin for these products is high.

Some are of the opinion that we should also be producing high-value-added products alongside general products, but I think we are at a serious crossroads in terms of deciding whether we can continue to do both while raw material and fuel prices continue to climb. If that the plant does not have the strength to produce at least somewhat profitable products, it will be difficult to achieve stable growth in profits moving forward. The production equipment required at the processing and finishing stages differs between general-purpose products and high-value-added products. We are working to reach a decision within the next six months or so and will incorporate this direction into Vision 2030 Stage II, the next medium-term business plan (fiscal 2024 to 2026).

ESG

Considering Joint Action with the Companies of the Yokkaichi Industrial Complex

CO₂ emissions reduction will be a major challenge for restructuring of the Yokkaichi Plant. ISK has announced that it will reduce CO₂ emissions 30% by 2030 compared to fiscal 2019, and we are proceeding with installation of backup boilers as we look to switch our fuel source from coal to LNG. Further, we are monitoring technological trends as we explore options for equipment which emits less CO₂ and develop materials capable of CO₂ fixation.

Also, at the Yokkaichi Industrial Complex, where the Yokkaichi Plant is located, a proposal has been put forward for joint action to achieve carbon neutrality among the companies there. Starting this fiscal year, the Yokkaichi Petrochemical Complex Carbon Neutrality Promotion Committee was established to work on facilitating cooperation between the industrial complex companies and the government to address issues that are difficult for companies to address on their own. ISK is also participating in relevant subcommittees and contributing to discussions about new fuel sources and infrastructure development.

In addition, with regard to ESG, we are moving forward in stages with initiatives related to human rights due diligence and human capital management. In March 2023, ISK received certification as a Health & Productivity Management Outstanding Organization (large enterprise category) from the Ministry of Economy, Trade and Industry. We will continue to maintain a grounded approach as we work to enhance and expand our efforts.

New Businesses

Goals for Realization in Fiscal 2027 and Beyond

In the previous Integrated Report, I announced that the key priorities during my term as president, in addition to the restructuring of the Yokkaichi Plant, the launching of new business. It is common practice when launching new business to take stock of company's strengths; however, the Business Creation Committee, which I directly oversee, has been tasked with finding business seeds in, from

the perspective of our current business, "enclaves" in completely new areas. What problems does the world face, and what problems people think would be worth paying money to solve? We are out in the field investigating, coming up with hypotheses and then trying to verify those hypotheses.

Although we have been doing this for a year now, and although we have come up with a number of proposals, the fact is we have not yet been able to evaluate their commercial feasibility. During the Stage II period we will examine how to achieve the proposals and will then work to realize them during the subsequent medium-term business plan, Vision 2030 Stage III (fiscal 2027 to 2029). And, looking ahead, We will strengthen our activity by inviting new employees and mid-career hires with a wide range of backgrounds, both organic and inorganic chemistry, to participate.

Value of ISK

Fostering Expectations about the Future Potential to Increase Share Price

Looking at the world in recent years often makes me wonder if we have reached a turning point. There may be ups and down, but things return to normal eventually; however, when fundamental changes occur, there is no going back to normal. So, what do you do when things do not go according to plan? Certainly, it is important to anticipate and prepare for the worst-case scenario.

But I believe our company has the underlying strength to overcome such a scenario. In our organic chemicals business, we have the ability to develop environmentally conscious agrochemicals, as well as the ability to adapt them to different countries' administrative and regulatory requirements so that they can be successfully licensed and brought to market. In our inorganic chemicals business, we have the ability to develop materials which perform a variety of different functions. The value of the ISK Group is found in its technological capacity for producing things that people want in order to create better living environments. I want all of our employees and stakeholders to recognize us a company possessed of real ability and strength, no matter the challenge.

The Tokyo Stock Exchange is asking all companies with a PBR (price book-value ratio) of less than 1x to disclose what improvement measures they are taking, and, while our PBR is holding at just above 0.5x, I feel that a challenge for us will be fostering expectations about the future potential of ISK, as a company possessed of real ability and strength, which will lead to a higher share price.

Therefore, as we work to increase our operating margin, I would like to focus more on communicating the growth scenario already laid out in Vision 2030. In addition, we changed our shareholder return policy in November of last year. Aiming for a consolidated payout ratio of 30%, and with a year-end dividend forecast of 50 yen for fiscal 2023, our policy is to utilize flexible share buybacks and other means of achieving a further increase in the total return ratio.

Thank you to everyone for your continued support and understanding.

To Realize Our Corporate Purpose

Our long-term vision, Vision 2030, has the dual aims of raising our corporate value through business activities and realizing a sustainable society. In line with the ISK Group's corporate purpose, we will continue to bring the world products that make people's lives better.

Vision 2030 Management Targets

- Net sales of greater than 200 billion yen
- Operating margin of 15% or more
- ROE 10% or more
- Continued stable return for shareholders

Contributing to realization of a sustainable society together with improving our corporate value through such business activities.

Originality. Acceleration. Global Reach.
Transforming Lives Through
the Power of Chemistry.

Preconditions: Megatrends and Stakeholders

Vision 2030 presupposes numerous worldwide changes that will likely arise by 2030, including climate change and food problems. How will these changes affect our stakeholders such as customers, shareholders, and investors? How can we contribute to our stakeholders in the face of these changes? After much debate in-house, we have summarized the initiatives that must be taken in our various businesses.

Value Provided by ISK and Our Initiatives

Inorganic chemicals business

Create new value based on the technologies developed for titanium dioxide products, to support the environment and digital society, and contribute to realizing a sustainable society.

Titanium dioxide	Providing a variety of colors and hues
Functional materials	Creating a range of comfort
Environmental products	Achieving both innovation and environmental protection

- > Diversifying the optical properties of titanium dioxide to realize new value creation
- > Contributing to the resolution of social issues such as the adoption of information and communications technologies and the electrification of automobiles through functional materials
- > Reducing environmental impacts while streamlining production through a revolution in production structures

New businesses, others

- > Building a new business portfolio
- > Strengthening development of environmentally friendly products by investing resources (people and money) with an awareness of environmental, social, and corporate governance (ESG) considerations in areas other than titanium dioxide or agrochemicals
- > Establishing structures to pursue carbon neutrality by 2050

Megatrends

- Climate change
- Resource shortages and food problems
- Urbanization
- Rapid development of IT
- Growth and aging of the global population

Stakeholders

- Shareholders and investors
- Local communities
- Customers and business partners
- Employees

Organic chemicals business

Supply unique products that directly enhance customer value across the world, and support people's nutrition, health and life to contribute to realizing a sustainable society.

Agrochemicals	Improving agricultural production stability and quality
Animal health products	Protecting the lives and health of pets
Pharmaceuticals	Contributing to medical care

- > Pursuing development and commercialization in a way that's aware of the value chain
- > Accelerating the creation of value and restoring our growth trajectory by improving and evolving in-house technologies
- > Manufacturing flagship products at the lowest cost in the world and supplying them in a stable manner to customers

To Realize Our Corporate Purpose

We are pursuing numerous initiatives under Vision 2030 Stage I (fiscal 2021 to 2023), the basic policy of which is the creation of sustainable corporate value.

Below are our priority goals and the current state of each.

Inorganic Chemicals Business

Priority goals	Main initiatives
Increasing the sales ratio for highly functional, high-value-added products	The increased sales ratio for these products, stated in the goals of the medium-term business plan, was not achieved due to expanded sales of general products. However, sales of highly functional, high-value-added products are steadily increasing with each year.
Expanding sales of high-purity materials for electronic components, and electro-conductive materials	(Electronic component materials) Sales are increasing for in-vehicle and telecommunications products. (Electro-conductive materials) Performance has been robust, and sales are expected to increase in automotive applications and specialty inks.
Accelerating development of new products that will serve as drivers of further growth	(High-refractive-index material) We are in the process of providing samples in Japan and having them evaluated. (Bismuth sulfide pigments) There are increasing requests for samples to use in optical elements, and we are studying how to scale up production.
Procuring feedstock ore in stable and favorable terms	We are making progress in favorable procurement of numerous types and quantities of ore while maintaining product quality.
Reducing waste, reducing equipment maintenance costs	We are in the process of achieving materiality KPIs.
Launching a master plan to optimize manufacturing sites	We are studying a reform of production structure, which includes scrap and build, with the aim of achieving sustainable plants that save energy, resources, and labor.
Creating a roadmap to reduce greenhouse gases	We are drawing a roadmap towards carbon neutrality.

Organic Chemicals Business

Priority goals	Main initiatives
Increasing our share of the global market by manufacturing agrochemical active ingredients at the lowest cost in the world and supplying them in a stable manner	The new factory of a subcontractor in India (agrochemical active ingredients) has started operation. The Americas has dramatically improved its sales composition ratio and has overtaken Europe to become top in the ISK Group.
Reducing costs and increasing demand for upcoming flagship agrochemical products	Sales are growing steadily, mainly in the Americas.
Implementing strategic, innovative sales measures, for example by utilizing multiple sales companies	Good progress is being made in the Americas and Europe, for example.
Acquiring and maintaining agrochemical registrations in various countries worldwide	We are in the process of acquiring agrochemicals registration for upcoming flagship agrochemical products in various countries.
Developing and commercializing biorational products	Swaru-banker™ Long, a new natural enemies biopesticide, was launched. ISK's first biostimulant product (plant-based) went on sale.
Refining and passing on chemical synthesis technologies	We purchased land for a new ISK pilot plant in Ono City, Hyogo Prefecture.
Introducing anti-pancreatitis drug for dogs to worldwide markets	Our anti-pancreatitis drug for dogs received conditional approval from the Food and Drug Administration (FDA), in the U.S. and went on sale there.

Organic and Inorganic Chemicals Businesses

Priority goals	Main initiatives
Growing our top line (sales)	Sales are exceeding our initial plan.
Strengthening creation of new businesses and new products	A Business Creation Committee, which reports directly to the president, was established. Blue phalaenopsis went on sale in Japan.
Carrying out internal structural and awareness reforms to achieve the Vision 2030 goals	We established our corporate purpose and are raising awareness of it company-wide. Top management is communicating through president briefings and media such as the Integrated Report and in-house magazine.

Capital policy

Priority goals	Main initiatives
Strengthening shareholder return (continuing to pay stable dividends)	In November 2022, we changed our shareholder return policy in consideration of the total return ratio.
Aggressively pursuing capital cost management Realizing improvements throughout the cash conversion cycle, etc.	By improving our long-term issuer rating, we are improving the environment for procuring capital.

Overall management

Priority goals	Main initiatives
Expanding the business opportunities available to us through management from the perspective of ESG and the SDGs	We are steadily implementing initiatives, centering on KPIs, that we have planned relating to what we consider the most important issues (materiality), such as climate change and human capital.
Identifying materialities (SDGs) and strengthening initiatives to address them	
Reforming workstyles by pursuing the digital transformation (DX) and streamlining operations	
Continuing and strengthening compliance management	
Strengthening risk management	

Reducing Volatility and Increasing Earning Capacity through Structural Reforms



Market Conditions and Performance Results for Fiscal 2022

Strong Organic Business While Inorganic Chemicals Business Struggled

Sales were extremely strong for our organic chemicals business. In particular, sales of fungicides and herbicides grew significantly in the Americas, notably becoming the top sales region for these products for the ISK Group. Sales within Europe, which has previously been the top region, remained strong, but sales in the Americas exceeded even that. Sales increased by 15.4 billion yen, boosted in no small part by the weaker yen.

Sales in our healthcare business also grew year-on-year. Additionally, PANOQUELL™-CA1, our anti-pancreatitis drug for dogs, received conditional approval and went on sale in America at the end of fiscal 2022. We can expect sales to grow moving forward. On the other hand, however, our inorganic chemicals business struggled due to rising raw material and fuel costs, particularly the cost of coal used for fuel. Despite taking

the unusual step of raising product prices twice in a year for two consecutive years, this was not enough to pass on the rising raw material and fuel costs, resulting in negative operating income.

Market conditions also worsened. The domestic market was affected by production adjustments in the automobile industry which were implemented because of a shortage of semiconductors. In the overseas market as well, the slowdown in the Chinese economy, particularly the declining demand for construction due to a slump in the real estate industry, has driven down prices for titanium dioxide used in architectural paints, and, with surplus inventory flowing into the Southeast Asian market, the overseas market as a whole fallen into a low-price war. The ISK Group tried to adapt to this, but was not at a price level that would allow it to compete.

As a result of all of the preceding factors, our consolidated performance for fiscal 2022 shows an increase in revenue but a drop in profit.

Rising raw material prices are also negatively impacting cash flow through increased inventory burdens. The 40 - 60% increase in raw material prices has been accompanied by an increase in the inventory amount recorded on the balance sheet. This was a large burden which resulted in negative operating cash flow for fiscal 2022.

Outlook for Fiscal 2023

Failure to Meet Medium-term Business Plan Profit Targets

In fiscal 2023, our organic chemicals business, in particular agrochemicals, is continuing to perform well thanks to ongoing market vitality. In Europe, we have also received a tailwind boost from the expiration of registration of a competing agrochemicals .

However, in our inorganic chemicals business, despite coal prices dropping from what they were, titanium ore prices continue to rise, with the result being net zero in terms of profit and loss. Domestically, automakers are making a recovery as a result of easing semiconductor supply and demand, thus helping ensure a stable shipping volume of

titanium dioxide for ISK; however, exports to the Chinese market continue to be sluggish. It is likely that we will struggle for the remainder of this year. There is talk of economic stimulus measures being enacted, but the details and scope of such measures are unknown, so it is unclear how much we can expect from them.

This situation is reflected in the forecast consolidated performance of 147.0 billion yen in net sales, 11.0 billion yen in operating income and 7.5 billion yen in net income announced in May 2023. If nothing tangible is seen with regard to China's economic stimulus measures by the end of the year, a downward revision is possible.

Fiscal 2023 is the final year of medium-term business plan, Vision 2030 Stage I (fiscal 2021 to 2023), and, although consolidated sales are expected to surpass the target of 125.0 billion yen, it is not expected that we will meet any of our profit targets, including our 16.6 billion yen consolidated operating income target. ROE is also expected to be 7.5%, which will unfortunately fall short of the target of 10% or more. However, given that our organic chemicals business is currently doing well, and given that the yen has weakened more than expected against the dollar and the euro, we can expect to see some degree of improvement.

Profit Emphasis and Structural Reform

Prioritizing ROE Improvement and Pursuing “Selection and Concentration” with the Next Medium-term Business Plan

I believe that the continued growth of the ISK Group will require greater earning capacity, and this is the direction of discussion among the Board of Directors. Rather than net sales, the indicator to focus on is the absolute value of operating income. Our long-term vision, Vision 2030, has as a target net sales of more than 200.0 billion yen, but there is a shared view by the president and every employee within the Group that we should emphasize profits.

Coincidentally, the Tokyo Stock Exchange issued a request this spring to low PBR companies that they make improvements. PBR (price book-value ratio) is found by

multiplying ROE (return on equity) with PER (price earnings ratio), in other words, past profits multiplied by future value. Of these, I believe our first priority should be improving ROE, which is an indicator of management efficiency.

What is required to achieve this is structural reform which lowers the volatility of our inorganic chemicals business, raises earning capacity and increases business value. Up until now, the discussion has been limited to how to switch to highly functional and high-value-added products, but we are now working from the ground up on measures that will realize a firmly future-focused strategy. We will summarize the results of discussion over the next six months into the next medium-term business plan, Vision 2030 Stage II (fiscal 2024 to 2026), and I believe that the next three years will serve as a touchstone of the extent to which structure reform can feasibly be carried out.

At just above 0.5x, our PBR is low, but whether we can get above the 1x level will depend on our structural reform.

The Tokyo Stock Exchange has further issued requests relating to “capital cost and share value-minded management”. At ISK, as well, we perform an internal comparison of measured capital costs and ROE, and there are some question marks with regard to fiscal 2022 performance and the forecast fiscal 2023 ROE. In general, the target given for ROE is 8%, but we are still a bit short of that.

With regard to PER, we get into a discussion of future value, and this all depends on how high we can raise the future potential of our inorganic chemical business through structural reform. Stage II will show everyone how we have answered the question of structural reform and will invite assessment.

Allocation and Funding

Active Investment in New Research Facilities and Joint Ventures

In the Integrated Report 2022, I stated that we anticipate the amount of investment will be 100 billion yen over five years, of which 65 billion yen is expected to be new investment. However, the situation has changed since then, and, given the negative operating cash flow for fiscal 2022, we do not anticipate that the amount of future investment will reach this level. This amount was originally calculated in anticipation of a restructuring of the Yokkaichi Plant; however, business-related structural reforms have

caused a change in our fundamental assumptions. At present, we do not know exactly how much will be needed to carry out a restructuring of the Yokkaichi Plant.

At the same time, however, we are deciding on new investments to be made in our organic chemicals business. In addition to several billion yen for the construction of an Organic Production Technology Research Institute (provisional name) in Ono City, Hyogo Prefecture, we have established a barium titanate manufacturing joint venture together with Murata Manufacturing Co., Ltd. and our subsidiary, Fuji Titanium Industry.

To raise funding for these, our policy is to utilize “general syndicated loans,” which are financing arrangements made by a syndicated group comprised of a wide range of financial institutions, including new financial institutions. As of September 2023, we have already raised 13 billion yen under this framework. Fortuitously, in July, the long-term issuer rating from the Japan Credit Rating Agency, Ltd. was raised to “BBB+” (stable), creating an environment in which funding is easier to procure.

In addition, we will monitor operating cash flow in the latter half of fiscal 2023 as we consider funding procurement for the year. In our organic chemicals business, as sales of agrochemicals based on a long-term account receivable turnover period have increased, the amount of working capital needed has also increased, thus requiring us to have a certain level of cash on hand. Also, although it will depend on how much titanium dioxide inventory in our inorganic chemicals business can be cleared, it is difficult from the standpoint of those in charge of fundraising to make a prediction due to large, market condition-related gaps, such as the rapid accumulation of inventory after being depleted in fiscal 2022.

Shareholder Returns

Dividend Increase Aimed at a Consolidated Payout Ratio of 30%

In the fall of 2022, we changed our shareholder return policy. We aim to increase the consolidated payout ratio to 30% by fiscal 2023, which is the final year of Stage I. In line with this, we increased dividends by six yen for fiscal 2022, which ultimately had increased revenue but decreased profits. We did this because, as we aim for a consolidated payout ratio of 30%, we wanted to first get something close to it. In addition, we will pursue flexible share buybacks along with soliciting feedback from investors, which we will reflect within Stage II.

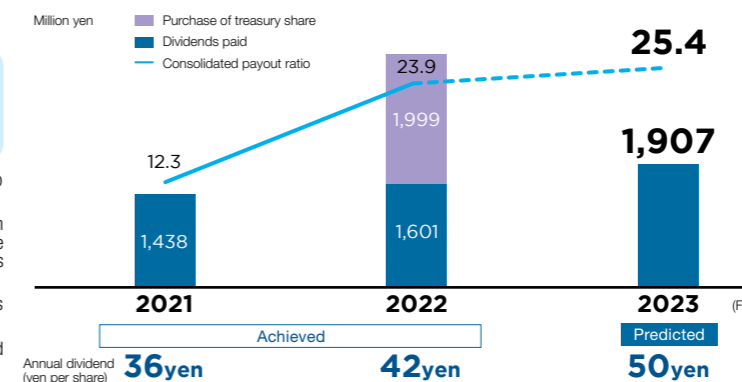
Some companies are taking measures, even in the midst of their medium-term business plans, to get their PBR above 1x; in the case of the ISK Group, we are planning structural reform of our inorganic chemicals business. In other words, the largest puzzle piece has not been fit yet, so we have to have everyone waiting.

This in no way means that we are not focused on PBR. Even amongst the Board of Directors there is an awareness of share price trends, Tokyo Stock Exchange requests and other factors that has made “sub-1x PBR” a common phrase used among the directors. Stage II is scheduled to be announced in May of next year, at which time the results of discussions amongst the Board of Directors will be made known.

Shareholder Returns

Dividends for FY2022
42 yen per share

- Increasing corporate value along with returning profits to shareholders are our top management priorities.
- Regarding dividends, our basic policy is to continue paying stable dividends in line with business performance while comprehensively considering such factors as performance trends, financial conditions and the sufficiency of internal reserves for future business development.
- We will utilize flexible share buybacks and provide shareholder returns with an awareness of the total return ratio.
- For Vision 2030 Stage I, the medium-term business plan, our aim is to achieve a consolidated payout ratio of 30% by the final year of the plan (fiscal 2023).





Director of Yokkaichi Plant
Yoshiyuki Shinmyo

A Manufacturer's Responsibility To Make Exactly What the Market Needs

The Yokkaichi Plant is the flagship production base of our inorganic chemicals business. It has been the foundation of ISK manufacturing for a great many years going all the way back to its establishment in 1941. What is the plant currently committed to, what is it working on? We put these questions to Yoshiyuki Shinmyo, who, as Director of the Yokkaichi Plant, is the person responsible for its overall operation.

Yokkaichi Plant's Commitment

Realizing Stable Supply and Stable Operation

—In terms of manufacturing, what is it that the Yokkaichi Plant is committed to?

A stable supply. Our top priority is to stably provide users what they need, when they need it, and of the quality they need. To do this, it is important that you emphasize a smooth, speedy flow of operations, like a baton pass in track and field, from acquiring information about 'needs and seeds' to product development and production. I believe that an outstanding plant is a plant that can do this.

Naturally, I am talking about plants that work to prevent workplace accidents, disasters and other occupational hazards. Without this, we cannot say we are providing a stable supply. With the exception of an annual maintenance shutdown, the Yokkaichi Plant operates around the clock every day, including the New Year and summer Obon holidays. Plant shutdowns lead directly to increased costs. Our ability to keep production going is where we shine.

Last year, when the COVID-19 pandemic was spreading at one of our workplaces, we faced the threat of a complete production stoppage, but we were able to keep the production line running by reducing the production facility utilization rate by half and entrusting each operator to contribute through his or her own roles and knowledge. I'm proud of this major accomplishment that, thanks to the cooperative efforts of everyone, we were able to ensure a stable supply even during the COVID-19 pandemic.

—What are the concerns facing manufacturing currently?

The titanium ore which the Yokkaichi Plant uses as the main raw ingredient in producing white pigment titanium dioxide is becoming harder to obtain due to decreasing titanium content at the ore extraction source, as well as due to overseas factors, such as conflict. The ore is not found in Japan and must be procured entirely from overseas. Furthermore, there is tight demand for the ships that carry the ore, resulting in delays; there was a three-month delay between March and May of last year, forcing us to make temporary production adjustments.

When this happens, we have no choice but to consider various ores that are more easily obtainable. These raw materials are

Yokkaichi Plant

difficult to use, tending to get stuck to, or clog up, our equipment. They also affect the white coloration which is so important to the product.

—So how do you address this?

We do the best with what we have, even if it is a low titanium content ore. Leucoxene, for example. When performing the chloride process of titanium dioxide manufacturing, a natural rutile with higher titanium content is the raw material typically used, and leucoxene is a natural rutile with a somewhat low titanium content which we have not used previously. However, by changing the ore reaction temperature conditions, experimenting with additives or by making improvements to our equipment, such as changing the shape of pipes to make it harder for material adhesion when handling powdered ore, we have mastered using the material in order to ensure that we are able to continue providing a stable product supply. As we identify problems, we steadily make improvements while continuing manufacturing. This, I believe, is the most important aspect of plant management.

Becoming a Plant Which Has Mastered the Use of Ore



I am in charge of the analysis operations connected with mastering the use of new titanium ore. Titanium ore has different properties depending on where it is mined, meaning properties such as reactivity and frangibility are not the same. Because some varieties can have yield and operations-related negative impacts, we use laboratory analysis to predict what phenomena will occur when they are actually used in production. However, when it is difficult to make a determination based on lab results alone, we need to verify the impact on quality and operations through actual use in production. It is important to exchange detailed information with operators, such as whether the reaction is progressing normally. I feel rewarding sense of fulfillment whenever we are able to get through production without any problems and I see how all the successive tests and experiments we conducted have paid off.

R&D Strategy Headquarters
Production Technology R&D Division
Process Development Group Chief

Shogo Iseya

Yokkaichi Plant's Strengths

A Diversity Array of Quality Products and the Capacity to Change Is Also Necessary

—What are the Yokkaichi Plant's strengths?

We are able to supply a lineup of products tailored for different applications with a lead time significantly shorter than our competitors. Another strength is our ability to continuously provide products of consistent quality which meets the quality needs of our customers. We offer a wide variety of quality products. This is because we believe it is incumbent upon manufacturers to produce exactly what the market needs. Our ability to perform multi-product production is the cumulative result of the operators directly responsible for production demonstrating a commitment to ensuring that the baton passes from the first half of the production process to the latter half, and from one shift's operator to the next shift's operator without interruption over the course of a 24-hour day, every day.

Our titanium dioxide business has been manufacturing primarily commodities for pigment application for many years, but, moving forward, we will expand into functional materials and other products in order to meet the changing needs of the market and our customers. It is important to stay abreast of what the market is demanding in order to provide the exact products that the user is looking for; it is no good manufacturing the same old products in the same old way. It is essential that we, too, change.

—What organizational structure have you adopted to capitalize on your strengths?

We have all the necessary departments, staff and equipment together in the Yokkaichi Plant, where everyone can collaborate and share knowledge together.

When producing a new product, we scale up gradually from laboratory to implementation level, but as the scale gets larger, variations in quality can often emerge. Figuring out how to solve the problem in the actual production equipment is not an easy task. So, at the Yokkaichi Plant, the Development Division and Production Technologies Division work together to create a prototype on the actual equipment, and, when issues manifest themselves, each division works on them, changing different parameters and production equipment operating conditions in a process of trial and error until the new product is on track for mass production.



GMP-compliant plant for pharmaceutical manufacturing

Yokkaichi Plant

Looking Ahead for the Yokkaichi Plant

Using Equipment Replacement as an Opportunity to Bring Widely Sought-after Products to Market

—How do you incorporate environmental responsiveness?

We are in an industry which produces a lot of by-products, so we try to think up ways that they can be reduced. Looking ahead to 2030, which is the culminating year of Vision 2030, we are primarily focused on waste recovery and recycling. Specifically, we are pursuing research and development into the collection and recycling of materials with recoverable value, such as titanium oxide, that mix with by-products and waste and leave the production line, as well as the collection and product application of rare metals, such as vanadium.

Also, with regard to greenhouse gases, there is no doubt that we need to reduce our use of coal as a boiler fuel. To address this, the first measure we are taking is switching to LNG, and we have started introducing new boilers and taking other initial steps; however, this is costly and will not serve as a real solution. In terms of CO₂ emissions reduction, we are working towards a 30% reduction by 2030 (compared with fiscal 2019), with the challenge of achieving carbon neutrality by 2050. It is important that we pursue this goal in cooperation with the local community. Thus, since last year, we have participated in a study committee of the Yokkaichi Chamber of Commerce and Industry, and from this year we have taken part in the discussions of the Yokkaichi Petrochemical Complex Carbon Neutrality Promotion Committee. The governor of Mie Prefecture serves as chair, with the mayor of Yokkaichi as vice-chair, while the other committee participants are comprised of the various companies within the industrial complex. Although it is still in the initial examination phase, discussion is becoming increasingly active.

—What does the Yokkaichi Plant of the future look like?

In order to secure the foundation for our inorganic chemicals business amidst worsening profits caused by rising raw material and fuel prices, the Committee for Inorganic Business Restructuring comprised of representatives from sales, development, technology and back office departments, is examining our future direction and business model. Also, given that it has been 70 years since the installation of our titanium dioxide sulfate processing equipment, and 50 years in the case of chloride process equipment, we also need to address the issue of aging equipment and updating earthquake resistance.

What we need to be doing is anticipating how our products will be used in the world in the future so that we can be one step ahead in our manufacturing. While recognizing that there are many angles from which to consider this, such as sales strategy, technology and finance, which means that this discussion cannot be limited to only the Yokkaichi Plant, we should seek to put in place a system which produces products that appeal to a wider market, rather than simply what customers ask for.

To do this, we need the ability to anticipate the needs of society. This will put our marketing, development and production technol-

ogy capabilities to the test to ensure we do not fall to second or third in line behind our competitors. It is important that we keep updating our products with an eye towards, for example, the automobile manufacturers and packaging materials manufacturers who are end users of titanium dioxide, as well as in view of the increasingly rapid changes in the market.

I personally think this will mean we move in the direction of highly functional and high-value-added products which, I feel, means the equipment and facilities updates we will make to the Yokkaichi Plant represent an opportunity for us.

I also hope to increase employee engagement in their work. Just like we endeavor to keep our homes clean and to improve them, I want us to take the initiative to improve this plant, where we spend so much of our lives, making it a safe and rewarding place to work.



Manufacturing Centered on Overseas Subcontractors

ISK will establish an Organic Production Technology Research Institute (provisional name; hereafter, “Ono Research Institute”) in Ono City, Hyogo Prefecture. The aim is to achieve, via advancements in manufacturing technology, the world's lowest cost manufacturing and stable supply. We spoke with three Biosciences Business Headquarters members who are part of the team working to establish the Ono Research Institute about the aims and future vision for it.

What is the Ono Research Institute?

A Production Technology Research Facility Equipped with Small-scale Production Equipment

Ueda The focus of the Ono Research Institute will be on scaling up new products, such as agrochemicals developed at the Central Research Institute (in Kusatsu, Shiga Prefecture), and on improving the manufacturing process for existing products in order to reduce costs. In manufacturing, various conditions change depending on the scale of manufacturing, and this affects the relative ease and cost of production. A chemical reaction which is easy to achieve in a laboratory may not be able to be scaled up as straightforwardly as you anticipated. Around 2006, we began outsourcing manufacturing overseas, and it was after we had already completed some degree of investigation into how to scale up production that we brought the basic production data to the subcontractors production site. Currently, because we do not have our own process verification facility, we are not able to perform simulations in Japan and have run into situations where problems at the subcontractors site forced manufacturing to be halted and where we were forced to borrow a subcontractors small-scale production facilities to perform tests on short notice.

Nakamura When scaling up the manufacturing process, we start at the scale of a normal laboratory, move to the “kilo-laboratory scale,” which is tens of liters, then to “bench scale,” which is hundreds of liters, and then to “pilot scale,” which is thousands of liters, closer to full plant scale. These are the stages commonly used to verify the safety, consistency and cost-efficiency of the developed manufacturing process.

At the Ono Research Institute, we plan to construct two buildings. The first is the Technology Research Building, which will have regular laboratory and kilo-laboratory scale equipment, and the second is the Synthesis Research Building, which will have equipment for performing verification of the upscaling process.

One of the aims for the Ono Research Institute is to use its aggregated testing data to facilitate a smooth establishment of new product manufacturing system at commercial production facilities. Also, for existing products, this facility will be used to help with cost reduction through the development of new manufacturing processes and the acceleration of technology transfer to contractors.



Biosciences Business Headquarters
Production Technology Division
Engineering Group Leader
Hiroaki Tomita

Biosciences Business Headquarters
Deputy Supply Chain Division
General Manager
Takafumi Ueda

Biosciences Business Headquarters
Deputy Production Technology Division
General Manager
Tadashi Nakamura

Agrochemicals Business

Areas for ISK to Prioritize

Production Technology and Data Accumulation, as Well as Human Resources Development

Tomita In the past, our approach has been to nail down initial production in-house and to hand over manufacturing to a contractor only after we have finished troubleshooting. Our adoption of contract manufacturing was not because that is what we preferred, but, due to factors such as the strict restrictions of the industrial complex, we were unable to flexibly deal with issues, including testing and research, at our own plant.

Nakamura After the ferosilt scandal, there was a period where we were unable to secure sufficient new capital investment for our plant and, ultimately, gave up on in-house manufacturing in favor of outsourcing. Looking back on the circumstances and situation at the time, I feel that we had no choice but to adopt such a system.

Tomita The biggest problem with this situation is that young employees do not gain experience with actual manufacturing. Those like me in our forties are the last generation to have experience with manufacturing at actual production scale. Employees who joined the company after my generation were focused primarily on process development in the laboratory and did not gain experience in the use of large-scale equipment. This makes it impossible to build up production technology in-house under conditions close to those of commercial production.

Ueda Once the Ono Research Institute is established, young employees will be able to experience manufacturing on a large scale. Human resources development is a major aim of the Ono Research Institute. It is scheduled to launch with around 30 employees, but we hope to expand the facility over time, increasing the number of employees to around 100. We will also promote human resources exchange with the Central Research Institute and the Yokkaichi Plant, and I expect that the human resources we develop will go on to work in sales, procurement and other departments throughout ISK.



On-site guidance at the manufacturing contractor

Nakamura Safety is another priority. When you apply the same approach to the commercial scale as the laboratory level without considering well, unforeseen problems can arise. This is something which happened a long time ago, but a chemical reaction during the manufacturing process of a certain fungicide caused an uncontrollable temperature increase on the bench scale, whereas it was had been a mild temperature increase on the laboratory scale. We were somehow able to get it under control, but, if it had happened in a larger facility, it would have resulted in a major accident. At the Ono Research Institute,

we can perform cumulative verification testing to prevent these sorts of problems as well.

Tomita When we work with subcontractors, small problems which occur on-site must, by necessity, be primarily handled by the subcontractor, thus keeping us from accumulating sufficient information. When we want to, for example, outsource manufacturing among different subcontractor in order to increase production, under the current system, the new subcontractor must start from square one accumulating data. The Ono Research Institute will consolidate these technical specifications, thereby speeding up production startup, as well as facilitating improved product quality and productivity.



Planned site of the Ono Research Institute

Future Prospects

Envisioning a Flagship Production Base and Information Hub

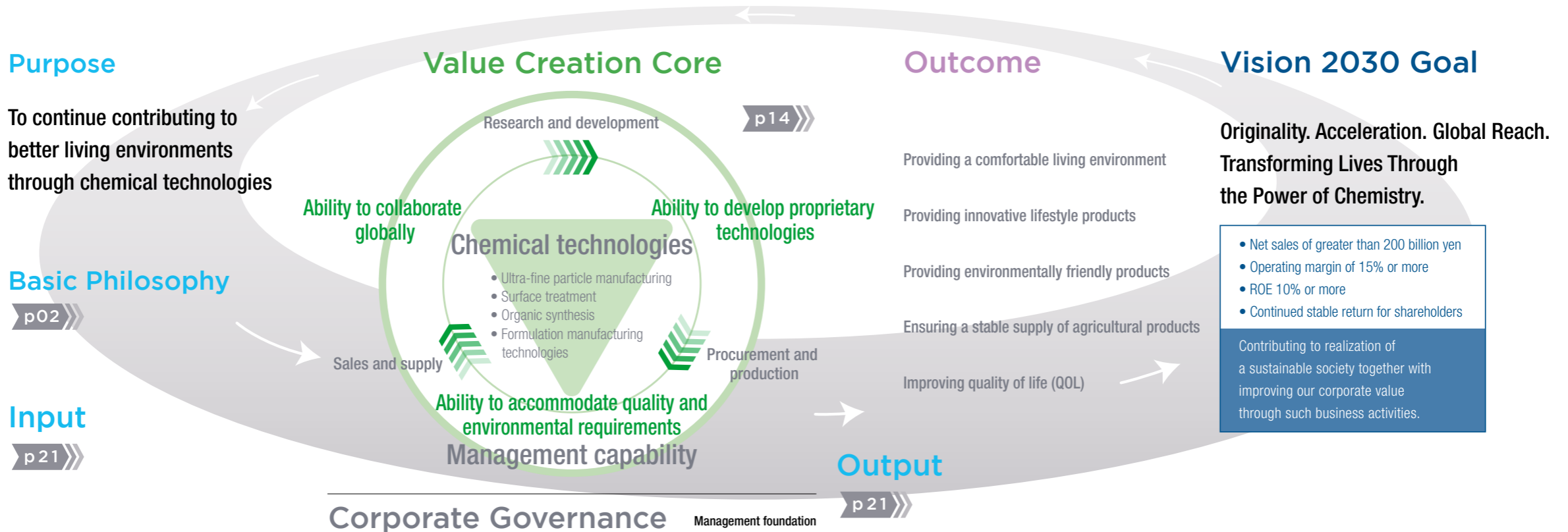
Ueda For the time being, our main research focus will be the active ingredients in agrochemicals; however, we hope to grow this research facility over the next several years to the point where it can handle formulation manufacturing and animal health products' active pharmaceutical ingredients, as well as organic intermediate products and all of ISK's organic chemical products. For animal health products manufacturing includes small-scale manufacturing ranging from tens of liters to hundreds of liters; thus, we are also envisioning the possibility of developing the research institute into a GMP-compliant manufacturing base which is capable of manufacturing active pharmaceutical ingredients.

Nakamura In terms of transferring manufacturing technology overseas, it would also increase the efficiency of technology transfer if, instead of our employees going to the contractor's site, their employees came here and worked together with us on the scaling-up process at the Ono Research Institute. I would like for us to put a system in place to facilitate that. In addition to cross-border exchange, I would also like the research institute to take on the role of technology information hub, disseminating and relaying information to our production sites around the world.

Tomita Ten to twenty years from now, securing human resources will likely be more of a challenge. In anticipation of that, I would like us to pursue tie-ups with other research institutes, such as universities. My dream is that we would collaborate on everything from basic research to market launch, which would also lead to being better able to secure human resources. I want us to become the hub Mr. Nakamura describes and to develop it into a hub which builds organic connections not only with universities but other companies in the same industry as us.

Creating value through our purpose to achieve Vision 2030

The ISK Group will be continuing to expand its business by taking its corporate purpose as a starting point and leveraging its core competence of chemical technologies; its three principal strengths, in the form of its ability to develop proprietary technologies, accommodate quality and environmental requirements, and collaborate globally; and its management capability, which underpin those strengths. In this way, we're striving to achieve Vision 2030, which seeks to balance economic value with sustainability value.







An era characterized by VUCA (volatility, uncertainty, complexity, ambiguity) in which the future is unpredictable



Megatrends

Climate change Urbanization Resource shortages and food problems Growth and aging of the global population Rapid development of IT

Promote Value Creation through Continuous Input

ISK Group's definitions of the inputs and outputs of the six capitals of value creation are given below. We will realize Vision 2030 through ongoing enhancement of inputs.

Financial Capital	Input	Role in Value Creation	Output
	<ul style="list-style-type: none"> Total assets (FY2022 consolidated) 201.9 billion yen Interest-bearing debt (end of FY2022) 56.0 billion yen Shareholders' equity (FY2022 consolidated) 95.4 billion yen 	Total assets from which revenue is generated, as well as interest-bearing debt and shareholders' equity, which serve as the primary means of raising capital in establishing these assets, are set as our main financial inputs. To realize Vision 2030, our long-term vision, we will efficiently utilize total assets in order to secure market share and thereby increase consolidated net sales. Also, adjusting a balance between interest-bearing debt and shareholders' equity will facilitate improved ROE along with greater capacity for future investment.	<ul style="list-style-type: none"> Forecast performance for FY2023 <ul style="list-style-type: none"> Consolidated net sales 147 billion yen Consolidated operating income 11 billion yen ROE 7.5%
Manufacturing Capital			
	<ul style="list-style-type: none"> Capital investment (FY2022 consolidated) 5.9 billion yen Titanium dioxide production capacity (No. 1 in Japan) 168,000 tons Expertise cultivated over many years, essential to high-quality and stable manufacturing 	The key manufacturing inputs are production capacity, which underpins our top share of the domestic titanium dioxide market, and capital investment sufficient to increase production of highly functional, high-value-added products. We achieve efficient facility operation sufficient to meet demand through the application of our unique expertise coupled with timely replacement investment in production equipment and facilities. We will take advantage of a new production line for highly functional products to increase the share of inorganic chemicals business sales accounted for by highly functional, high-value-added products.	<ul style="list-style-type: none"> Change in the titanium dioxide production facility utilization rate (FY2021 consolidated -> FY2022 consolidated) 5.5% decrease Highly functional, high-value-added products as a percentage of inorganic chemicals business sales (FY2022 consolidated) 32%
Human Capital			
	<ul style="list-style-type: none"> Employees (FY2022 consolidated) 1,768 people New graduate hires (FY2022 non-consolidated) 23 men, 4 women Mid-career hires (FY2022 non-consolidated) 44 men, 5 women 	Securing and making the most of a diverse group of human resources is one of the key priorities of the ISK Group. We strive to secure human resources with a challenging spirit and a global mindset, regardless of their gender or nationality, as newly hired graduates or mid-career hires. We also help newly hired employees develop their careers in order to strengthen their basic skills as working members of society, raise the awareness of employees at all levels of their roles, and prepare promising candidates for executive roles. This new system provides all employees with the opportunity to take on high-level job challenges and to get various kinds of training. Through these procedures, we draw out greater value from our human resources.	<ul style="list-style-type: none"> Training time per person (FY2022 non-consolidated) 24 hours per person/year Employees who took childcare leave (FY2022 non-consolidated) 13 people Female manager ratio (FY2022 non-consolidated) 7.6% Paid leave acquisition rate (FY2022 non-consolidated) 81.9%
Social and Relationship Capital			
	<ul style="list-style-type: none"> Transparency in business activities abiding by laws and regulations Number of countries where we sell our products 78 countries 	In keeping with the Group's corporate philosophy, we strive for the sustained growth of our business and growth in our corporate value through a commitment to compliance and management that is transparent, trustworthy, and sound. We promote two-way communication to earn the trust of local residents, for example through efforts to ensure safety and disaster prevention, environmental activities, and active communication of information. In addition to undertaking human rights initiatives, we observe the laws and regulations in every country and region in which we operate, and we ensure our purchasing activities are characterized by decency and adherence to social ethics.	<ul style="list-style-type: none"> Coexistence with local communities Sustainable procurement: Establishment of ISK Group Policy on Procurement and guidelines governing procurement, pursuit of human rights due diligence External honors: ISK's HASClay™ was awarded in the outstanding energy-saving/low-carbon machinery and systems category in 2022 commendations by the Japan Machinery Federation. Our Blue Gene™ won a 2022 Flower of the Year prize in the Japan Flower Selections competition organized by the Japan Flower Selections Association.

Natural Capital		Input		Output	
	Yokkaichi Plant FY2022		We treat energy, water, and titanium ore consumption at Yokkaichi Plant and our subsidiary, Fuji Titanium Industry, as key indicators so that we work to reduce the volume of our CO ₂ emissions, water usage, and industrial waste disposal. By reducing coal-fired boiler CO ₂ emissions as part of our efforts to address global warming, we aim to preserve a comfortable living environment. Through more thorough chemical substances management, we are reducing the amount, and amount transferred of, our emissions, with the goal of reducing the impact on humans and the ecosystem to as close to zero as possible.	Yokkaichi Plant FY2022	
	<ul style="list-style-type: none"> • Energy (heavy fuel oil equivalent) 140,000 kiloliters • Industrial water 16 million m³ • Seawater 10 million m³ • Titanium ore 150,000 tons 			<ul style="list-style-type: none"> • CO₂ emissions 400,000 tons • Wastewater emissions into public water areas 26 million m³ • Industrial waste 95,000 tons PRTR-listed substances 1,500 tons 	
Intellectual Capital					
	R&D expenses (FY2022 consolidated)		Research and development have long been a priority for ISK Group. We ensure that a certain threshold for R&D expenses is met regardless of fluctuations in business performance. R&D activities at the Central Research Institute and Yokkaichi Plant account for the majority of R&D expenses, while some are used for the registration of agrochemicals in various countries. Drive the development and patenting, both in Japan and overseas, of new agrochemicals and drugs, highly functional titanium dioxide materials and more, as well as facilitate the creation of new business associated with them.	<ul style="list-style-type: none"> • Number of patents held (end of FY2022 non-consolidated) 2,502 (Japan) 242 (Overseas) 2,260 	
	<ul style="list-style-type: none"> (Inorganic chemicals) 1.5 billion yen (Organic chemicals) 7.6 billion yen 			<ul style="list-style-type: none"> • Products developed in-house as a percentage of organic chemicals business sales (FY2022 consolidated) 88.6% 	
<ul style="list-style-type: none"> • Percentage of R&D employees (FY2022 non-consolidated) 22.2% 					

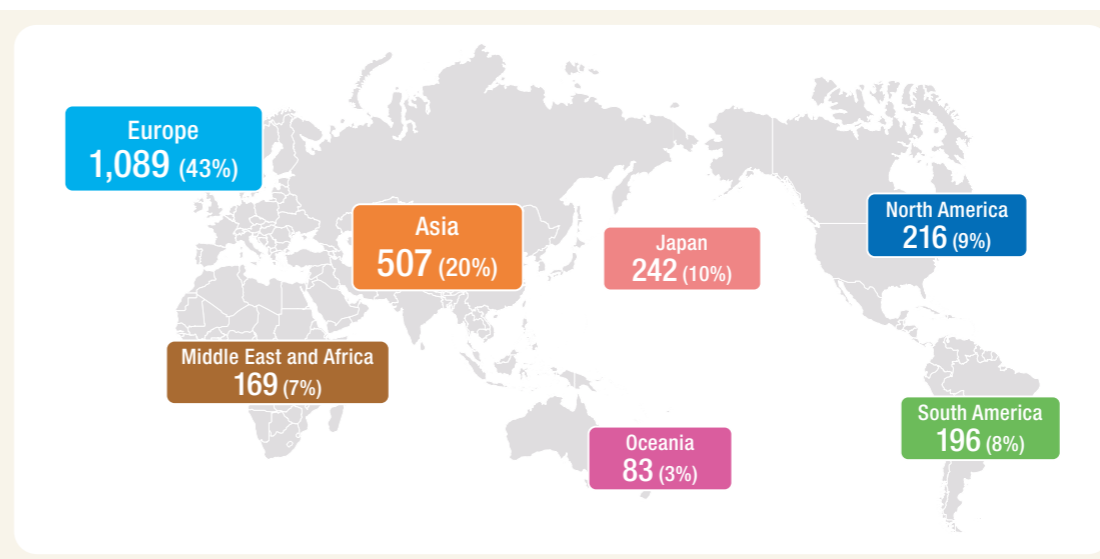
Topics

Global Intellectual Property Offensive

The illustration on the right shows the number of patents ISK holds, by region.

We hold patents throughout the world, including in Japan, the U.S., Europe, South America, and Africa. In order to support ISK's global business through intellectual property, Intellectual Property division collaborate our business divisions to acquire patents for products in the regions where we plan to market them.

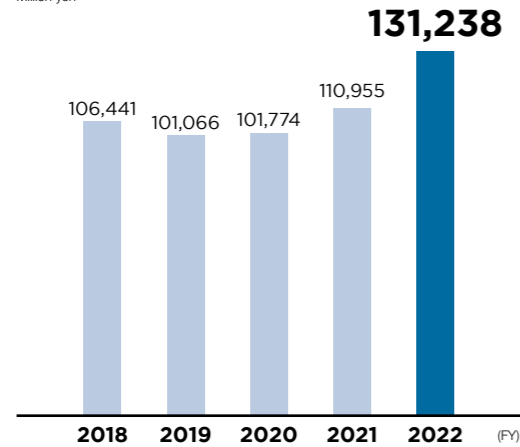
Patent acquisition efforts are conducted based on the laws of the target countries and the embodiment and timing of the patent. In the field of agrochemicals, for example, in addition to substance patents for active ingredients, we are studying moving on to patent applications related to manufacture process, formulation, and mixed formulations, as well as patent extension registration and trademark registration application. Such efforts will expand our portfolio and maintain our business advantage.



Financial Highlights (Consolidated)

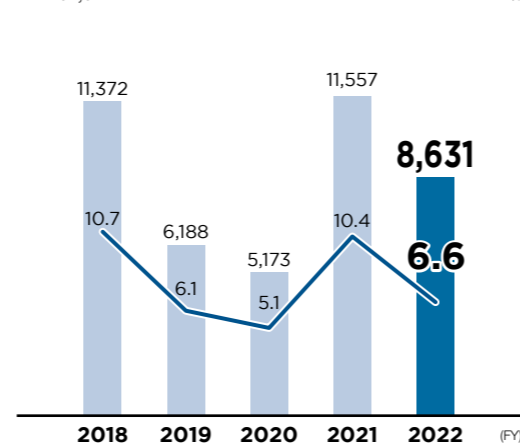
Net Sales

Million yen



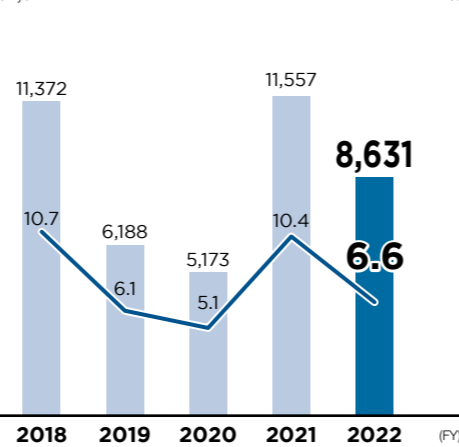
Operating Income

Million yen



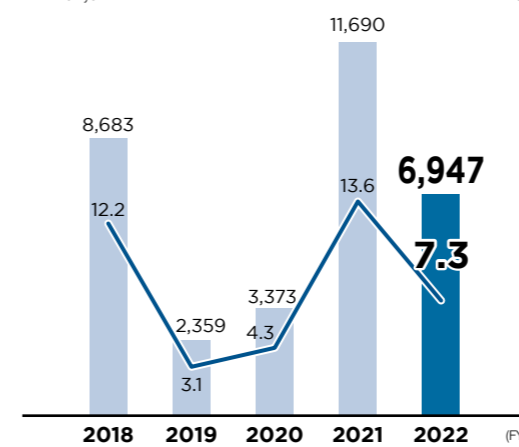
Operating margin

%



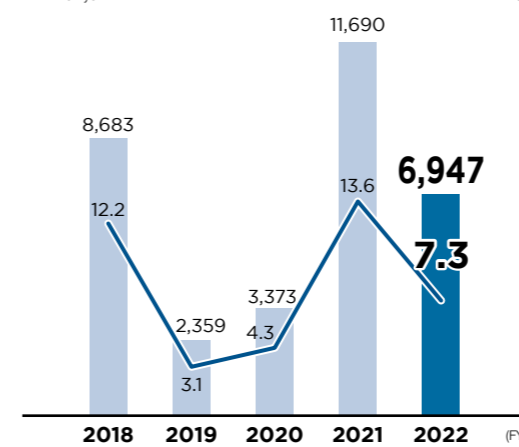
Net Income Attributable to Owners of Parent

Million yen



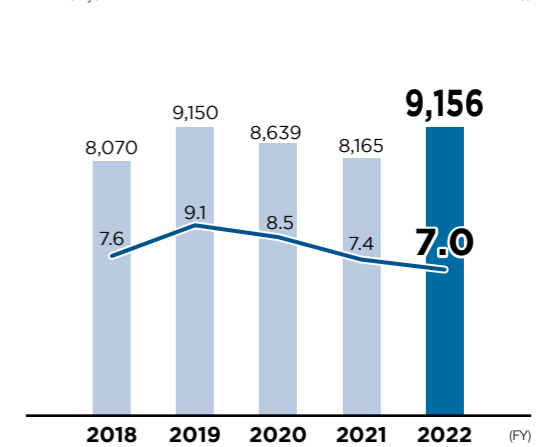
ROE

%



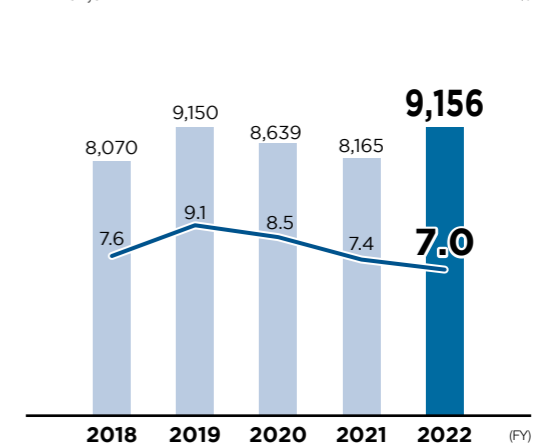
R&D Expenses

Million yen



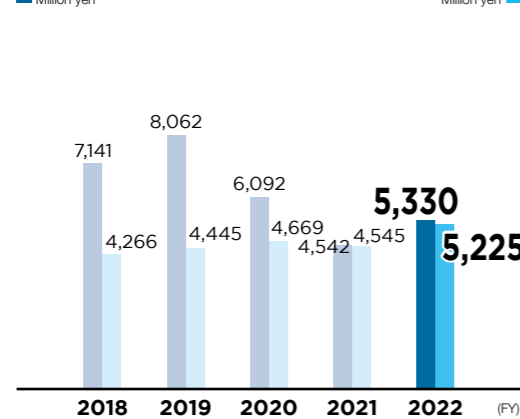
Ratio of R&D Expenses to net sales

%



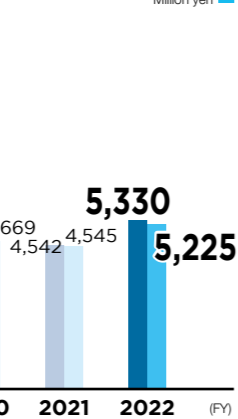
Capital Investment

Million yen



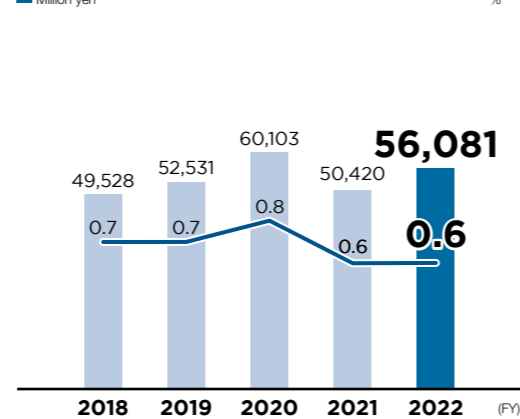
Depreciation expense

Million yen



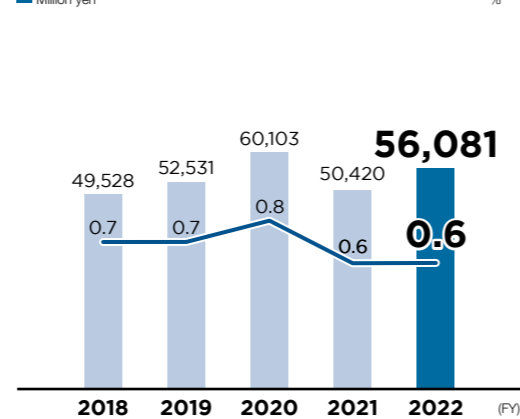
Interest-Bearing Debt

Million yen



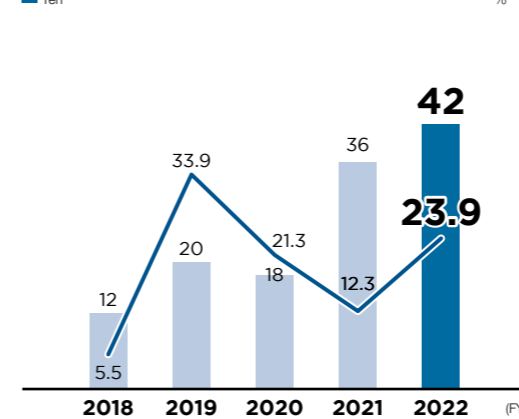
D/E ratio

%



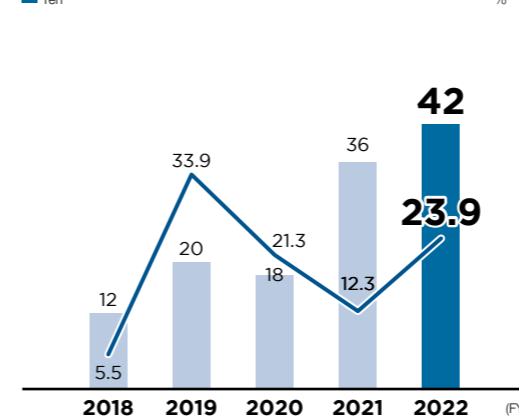
Dividends per Share

Yen



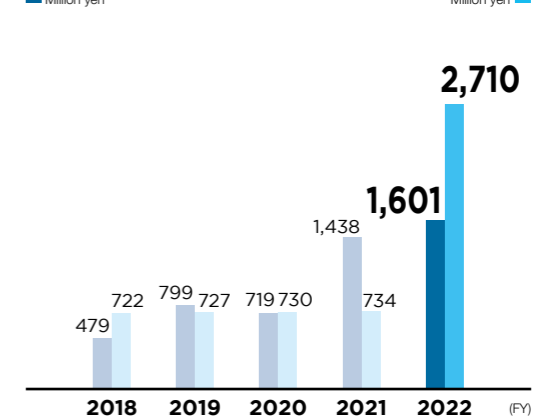
Payout ratio

%



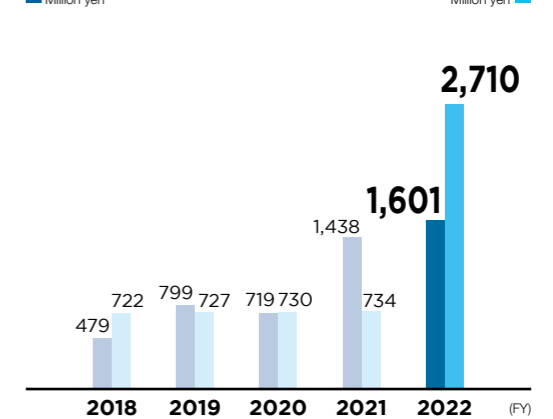
Total Dividends Amount

Million yen



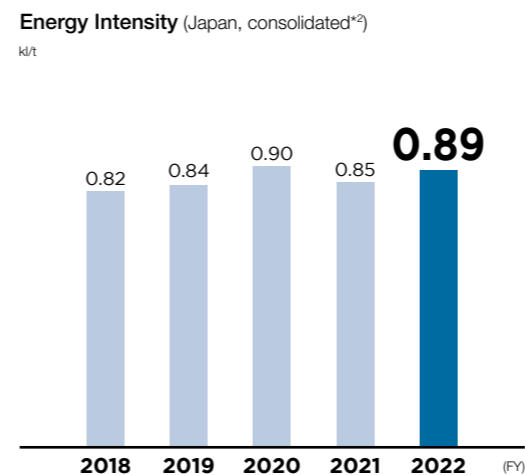
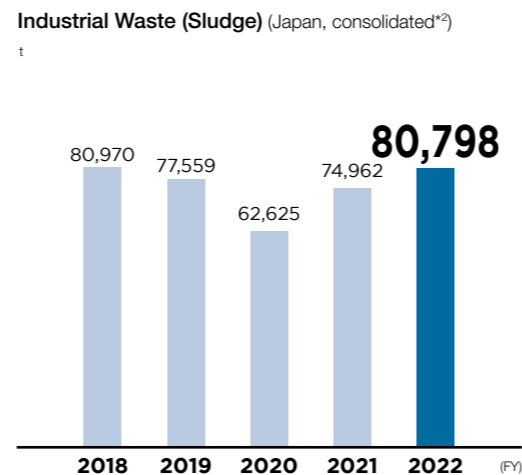
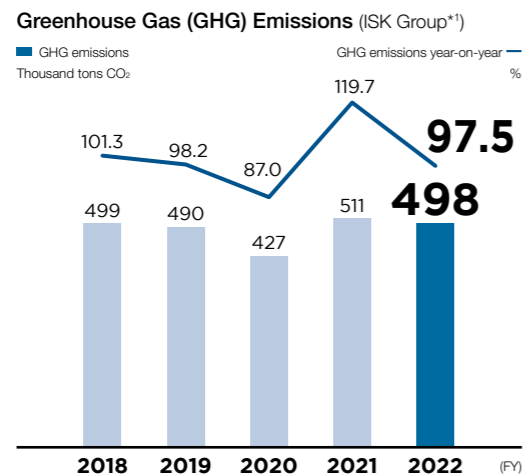
Purchase of treasury share

Million yen

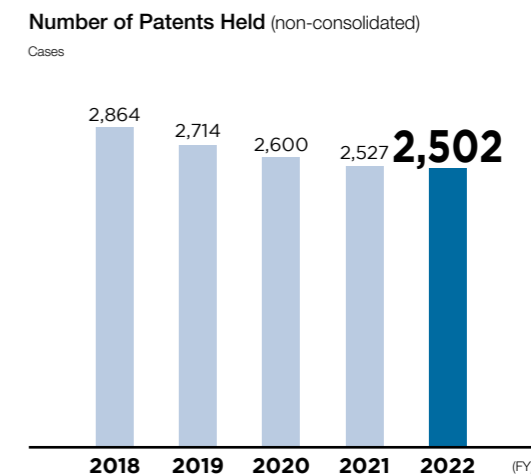


Non-Financial Highlights

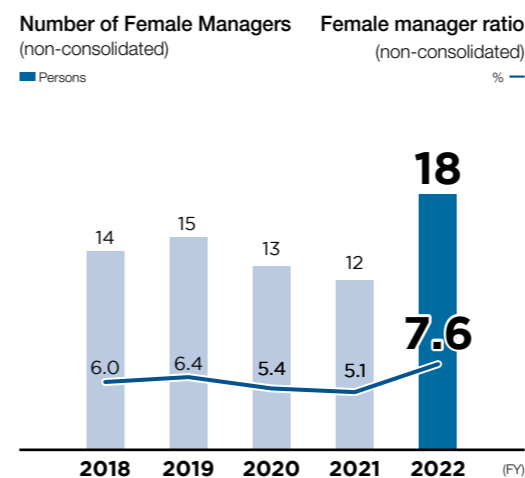
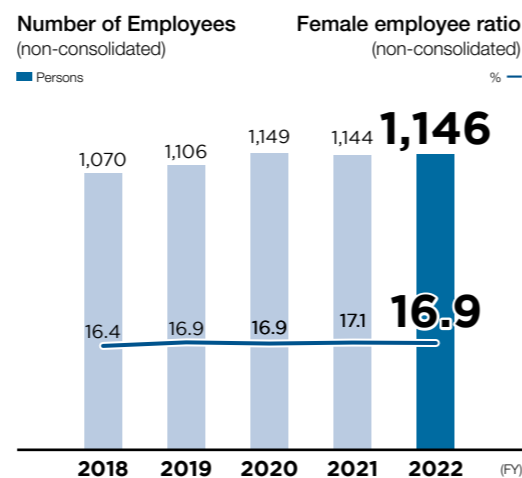
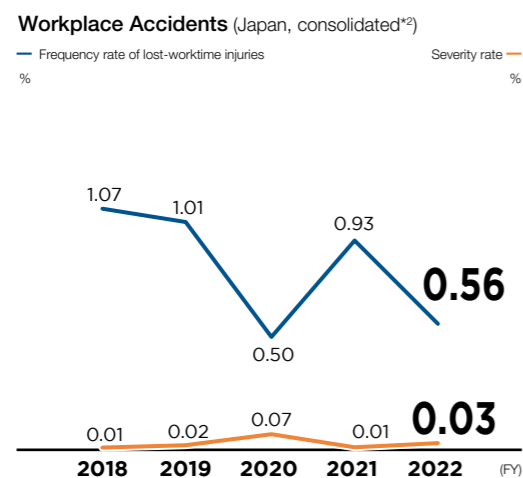
Environmental



Others



Social



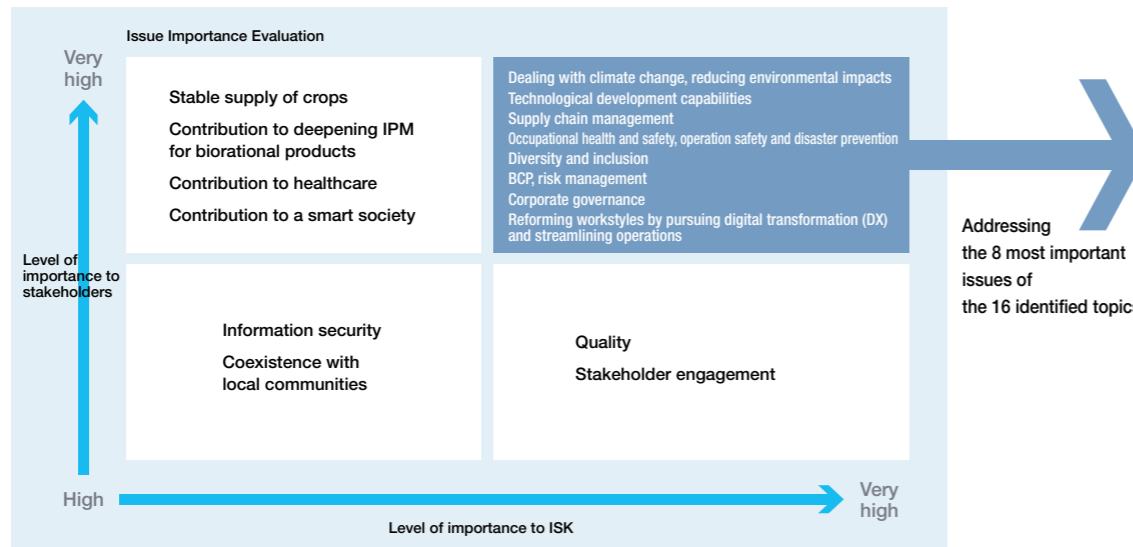
*1 Entire ISK Group

*2 Operated by ISK and Fuji Titanium Industry Co., Ltd. Production facilities only.

Materiality for the ISK Group

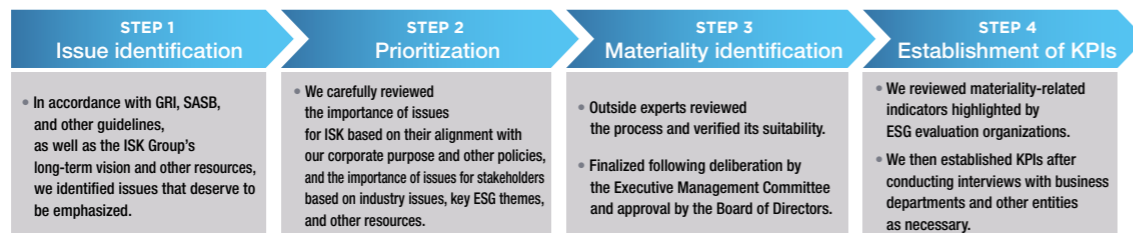
The Group has identified materiality (key issues) with the potential to impact its medium- and long-term corporate value. We've established medium- and long-term key performance indicators (KPIs) for eight key issues with an extremely high level of importance for both stakeholders and the ISK Group, which we've determined comprise the most important issues, and will undertake specific initiatives to address them. By addressing these issues, we strive for the sustained development of society and the creation of sustainable corporate value.

Identified Materiality



Materiality	Outline
Dealing with climate change, reducing environmental impacts	<ul style="list-style-type: none"> In carrying out business activities, we implement load reduction initiatives in the following environmental domains, including climate change, energy use, and pollutant emissions reduction Set mitigation targets and take action in response to climate change Preserve biodiversity Recycle and reuse water Reduce energy usage Reduce greenhouse gas emissions and other initiatives for atmospheric emissions Reduce industrial waste and pollutants emissions Procure environmentally friendly resources, improve resource efficiency Pollution prevention and chemical management
Technological development capabilities	<ul style="list-style-type: none"> Work to further improve ISK Group's technological development capabilities, which represent one of the Group's strengths, through advancement of core technologies and the pursuit of innovation
Supply chain management	<ul style="list-style-type: none"> Address the environmental, social, and human rights-related issues in the supply chain and implement fair and impartial procurement Preserve the quality, cost, and supply stability in order to meet the market need
Occupational health and safety, operation safety and disaster prevention	<ul style="list-style-type: none"> Ensure the health and safety of labors at workplace, and make sure operation safety and disaster prevention
Diversity and inclusion	<ul style="list-style-type: none"> Create workplaces that value the individual, foster mutual respect, and empower all employees, regardless of gender, age, disability, nationality, lifestyle, work backgrounds, values, or other attributes Accommodate individual differences in experience, ability, and thinking, and facilitate skills development and improvement to help all employees achieve maximum performance
BCP, risk management	<ul style="list-style-type: none"> Ensure the thoroughness of risk management and BCP (Business Continuity Plan) in order to minimize the impact from external risks
Corporate governance	<ul style="list-style-type: none"> Strengthen governance to improve organizational operation and performance Ensure compliance and corporate ethics, foster operational transparency
Reforming workstyles by pursuing digital transformation (DX) and streamlining operations	<ul style="list-style-type: none"> Pursue DX to streamline operations and implement work style reform

Process for Identifying Materiality and Establishing KPIs



Eight Most Important Issues and KPIs

Materiality	Outline	KPI	FY2022		FY2023	Scope
			Target/FY	Achievements	Target updated/FY	
Dealing with climate change, reducing environmental impacts	Set mitigation targets and take action in response to climate change	CO ₂ emission reduction rate (Scope 1+2, vs. FY2019)	30% or more/2030	1.7% increase (FY2019 levels)	30% or more/2030	ISK Group
	Reduce energy usage	Reduction in energy intensity	1% or more/Every year	0.3% decrease (Year-on-year)	1% or more/Every year	Japan, consolidated
	Reduce industrial waste and pollutants emissions	Industrial waste emission reduction rate (vs. FY2019)	50% or more/2030	22.1% reduction (FY2019 levels)	50% or more/2030	ISK
	Pollution prevention and chemical management	Adherence to voluntary control standard values that are stricter than environmental laws (wastewater, waste gas)	Continue/2030	Achieved	Continuing/2023	Japan, consolidated
Technological development capabilities	Work to further improve ISK Group's technological development capabilities, which represent one of the Group's strengths, through advancement of core technologies and the pursuit of innovation	Creation of new products and technologies in each business segment	Establish on a per-department basis/2023	Working according to the plans	Establish on per-department basis/2023	Japan, consolidated
Supply chain management	Address the environmental, social, and human rights-related issues in the supply chain and implement fair and impartial procurement	Establishment of ISK Group Policy on Procurement and guidelines governing procurement	Announcement/2023	ISK Group Policy on Procurement has announced and guidelines under review.	Establish guidelines/2023	ISK Group
Occupational health and safety, operation safety and disaster prevention	Ensure the health and safety of labors at workplace, and make sure operation safety and disaster prevention	Frequency rate of worktime injuries, severity rate*	0 accidents/2023	Frequency rate: 0.56 Severity rate: 0.03	0 accidents/2023	ISK, Fuji Titanium Industry
		Percentage of employees undergoing health checkups and stress checks	100%/2022 Continue/2030	100%	100%, continuing/2030	ISK
		Paid leave acquisition rate	75% or more/2022 80% or more/2030	81.9%	80% or more/2030	ISK
Diversity and inclusion	Create workplaces that value the individual, foster mutual respect, and empower all employees, regardless of gender, age, disability, nationality, lifestyle, work backgrounds, values, or other attributes	Female manager ratio	10% or more/2030	7.6%	10% or more/2030	ISK
		Mid-career hires as percentage of managers (average for last three years)	30% or more/2022	29.3%	30% or more/2023	ISK
	Accommodate individual differences in experience, ability, and thinking, and facilitate skills development and improvement to help all employees achieve maximum performance	Time spent in training and/or classes per employee	20 hours or more/2022	24 hours	20 hours or more/2023	ISK
		Cost of training sessions and/or classes per employee	50,000 yen or more/2022	50,000 yen	50,000 yen or more/2023	ISK
BCP, risk management	Ensure the thoroughness of risk management and BCP (Business Continuity Plan) in order to minimize the impact from external risks	Implemented through Corporate Risk Management Committee initiatives	Achieve plan/2023	Progressing according to the plans	Achieve plan/2023	ISK Group
Corporate governance	Ensure compliance and corporate ethics, foster operational transparency	Participation in at least 1 compliance training session	100%, continuing/2022	100%	100%, continuing/2023	Japan, consolidated
Reforming workstyles by pursuing digital transformation (DX) and streamlining operations	Pursue DX to streamline operations and implement work style reform	Effective contribution to operational streamlining	3 or more/2022	3	3 or more/2023	ISK
		DX certification	Acquire/2023	Progressing according to the plans	Acquire/2023	ISK

Frequency rate of worktime injuries: Number of employees injured or killed in occupational accidents per 1 million total working hours; indicates the frequency of occupational accidents.
Severity rate: Number of working days lost per 1 thousand total working hours; indicates the severity of occupational accidents.

Inorganic Chemicals Business

Titanium dioxide is the flagship product of our inorganic chemicals business. In addition to white pigment used in paints, industrial products and other applications, we are global suppliers of an electronic component material for ceramic electronic devices, an electronic component material for ceramic electronic devices, and high-value-added titanium dioxide used as, among other things, such as in automobiles, and as a pollution prevention catalyst.

Social Issues and Environment

- We are tackling the challenge of developing materials intended for devices that will support the next-generation infrastructure essential to a smart society adapted to an aging population, declining workforce and changing lifestyles.
- We continue contributing to better living environments by providing materials and solutions that lead to self-driving technology and remote control technology.
- We are strengthening to develop our environmentally friendly product and to develop manufacturing processes that reduce environmental impacts. (energy conservation, heat recovery/reuse, waste reduction, recycling)

Contributing to Devices Supporting Next-generation Infrastructure

EV (electric vehicles)



Copper particles
(sintering material for use in power semiconductors bonding)

Smart glass



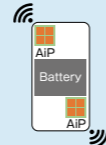
Organic solvent dispersion of TiO₂
(highly refractive material)

Camera module



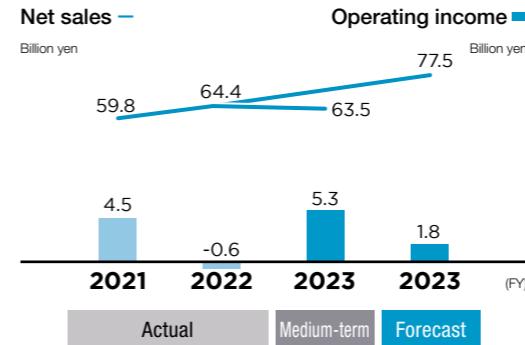
LUSHADE™ BLACK
(super black light absorption material)

High-speed communication equipment



Acicular type titanium dioxide
(high dielectric/low dielectric loss tangent material)

Revenue Trends for Inorganic Chemicals Business



Risks and Opportunities

Risks

- Reduced earnings due to rising costs for energy and raw materials, such as titanium ores
- Accidents and other problems due to aging production facilities and equipment
- Drop in market price and ISK market share as a result of growth among Chinese titanium dioxide manufacturers

Opportunities

- While continuing to monitor market trends, pass costs on to product prices and increase the sales percentage for high-value-added products. Also, including technological improvement, diversify raw materials used to expand the range of options
- Carry out preventative maintenance and study the appropriate timing for replacing equipment and facilities
- Work towards increased and stable revenue by continuing to provide the market with high-value-added products based on ISK's unique technology

Strengths and Competitive Differentiation from Competitors

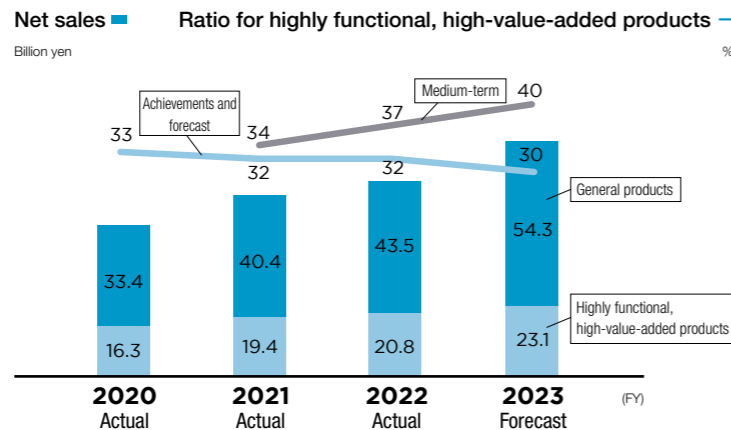
- Our technological strength cultivated over many years, along with our meticulous customer service, allow us to stably bring high-quality products to market that meet customer needs.
- Our titanium dioxide business has held the top market share in Japan for many years. We are the only company in Japan with manufacturing facilities for both sulfate and chloride processing, allowing us to provide a diverse range of products.
- Super-weatherable titanium dioxide, black heat-shielding pigment, acicular white electro-conductive materials... We've been venturing into a diverse range of applications with these unique product lineups that no other company offers.

Strategies

In our inorganic chemicals business, one of the business strategies and initiatives we are pursuing is “increasing the sales ratio for highly functional, high-value-added products.” However, in Stage I, we did not reach our target sales ratios for each fiscal year. This was due to an increase in sales of general products, and, while the sales ratio for highly functional and high-value-added products may have declined, their sales are steadily increasing, even with a softening global market.

In preparation for Vision 2030 Stage II, we are steadily pursuing development and marketing for new highly functional and high-value-added products. Our target market is devices which support next-generation infrastructure through self-driving technology and remote control technology, and we are planning to introduce a succession of products to that market, including a highly refractive material for smart glass, LUSHADE™ BLACK (super black light absorption material) for camera modules and copper particles for use in power semiconductor bonding. During the Stage II period, our aim is to achieve sales of several billion yen for these new materials collectively.

Sales Ratio for Highly Functional, High-value-Added Products



Environmentally and Socially Beneficial Materials



SDGs Goal 9

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Provide highly functional and high-value-added products which contribute to devices that support next-generation infrastructure

The copper particles and organic solvent dispersion of TiO2 currently in development are new materials for use in EV (electric vehicle) power semiconductor bonding, AR (augmented reality) device sensors and other applications. Through these, we will offer new possibilities in the areas of the environment, labor efficiency, education, communication and advanced information communications.

Bonding Material for Use in Power Semiconductors (copper particles)



Powder

Paste

Use: High heat-resistant bonding for power semiconductors used in EVs

Highly Refractive Material (organic solvent dispersion of TiO2)



Applied to glass

Use: AR device sensors, optical filter/anti-reflection coating



SDGs Goal 13

Take urgent action to combat climate change and its impacts

Supply new heat storage materials which contribute to energy conservation and CO2 reduction

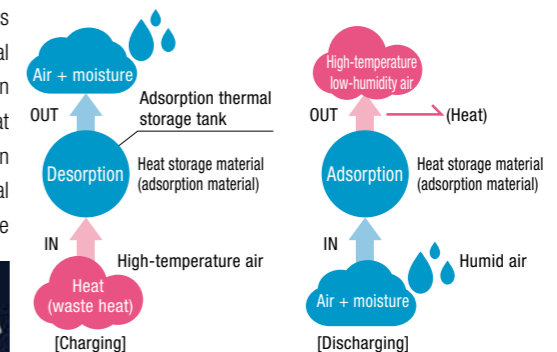
Our HASClay™ high-performance heat storage material can store low-temperature waste heat of around 100°C and has more than twice the heat storage capacity of conventional materials. Additionally, there is no need for heat insulation when storing heat for a long period of time. Because the heat storage tank can be transported so that the waste heat can be used in another location, it is expected that this material will be used as a “heat battery” which contributes to effective energy utilization and CO2 reduction.

High-performance heat storage material (HASClay™)

Use: Effective utilization of waste heat from plants for heating, pool heating, etc.



[Overview of Adsorption Thermal Storage System]



Organic Chemicals Business (Agrochemicals)

In our agrochemicals business, we manufacture and distribute agrochemicals such as herbicides, fungicides, and insecticides. As the industry pioneer that first introduced chemical pesticide technology, we're currently one of the leading exporters by value in Japan. We've made solid progress in gaining a foothold in the European and U.S. markets.

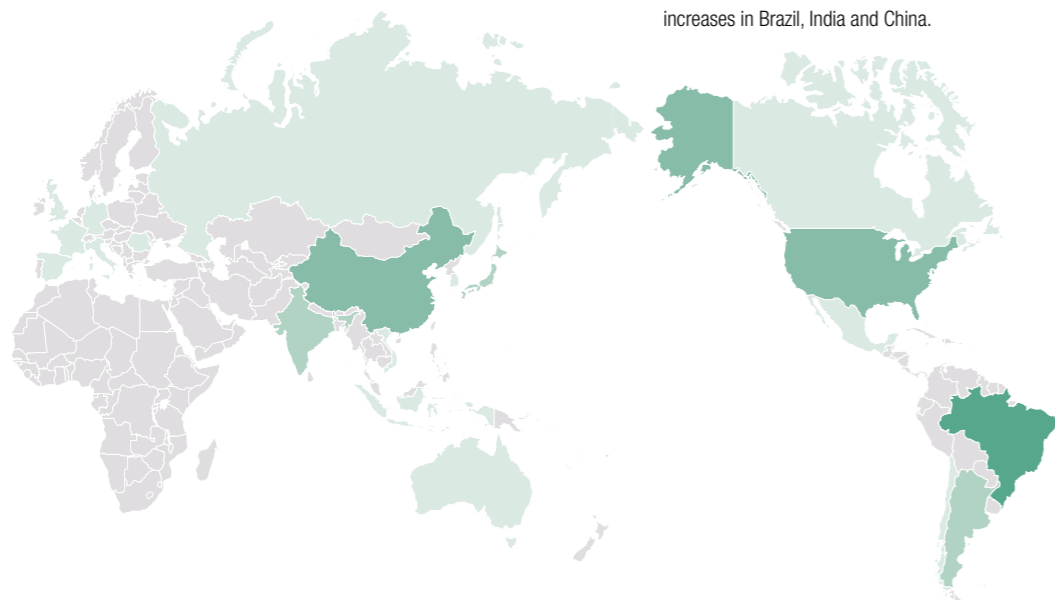
Social Issues and Environment

- There is a need for agrochemicals in order to produce food for the world's ever-growing population.
- We provide safe agrochemicals which satisfy the increasing physical and mental health-consciousness that is being seen worldwide.
- We incorporate environmental considerations for the sake of protecting biodiversity.
- We provide agrochemicals adapted to the climate change-induced changes in the crop production environment.

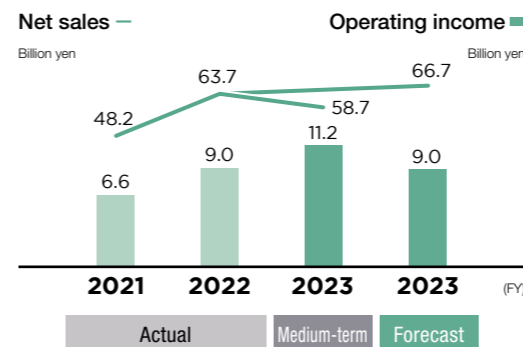
Global Agrochemical Market (Agbio Crop 2022)

Billion US \$ 14.3

Sales of agrochemicals have steadily increased over the past five years due to such factors as expanding acreage for crops like soybean, with particularly notable increases in Brazil, India and China.



Revenue Trends for Organic Chemicals Business



Risks and Opportunities

Risks	Opportunities
• Delay in, or failure to achieve, product approval or registration	Take proper approach to countries' registration agencies and authorities; assess other companies' agrochemicals registration and survey their registration status; secure personnel with expertise in highly specialized fields, ensure handover of registration know-how
• Revised and stricter laws and regulations	Appropriately gather information relating to laws and regulations and registration requirements
• New entries and intensifying competition	Lower production costs to strengthen competitiveness; develop new molecule and mixed formulations that will enable ISK to stand out in the agrochemicals market
• Crop injury by agrochemical products	Strengthen safety confirmation by performing growing tests in fields; promote and disseminate appropriate methods for using agrochemical products

Strengths and Competitive Differentiation from Competitors

- Expand market share and improve profitability by launching new formulations and mixed formulations of existing products and by lowering production costs
- Ensure a stable supply and cost reduction by having flexibility in procuring active ingredients through integrated manufacturing that encompasses key raw materials or intermediates and active ingredients, purchasing of active ingredients from other companies, and joint procurement with other companies
- Leverage ISK manufacturing technology to actively sell organic intermediate products
- Shorten the registration schedule (initial registration, label expansion, change of manufacturing site, etc.)
- Add other species of blue flowering plants (blue dahlia, large-flowered blue phalaenopsis)

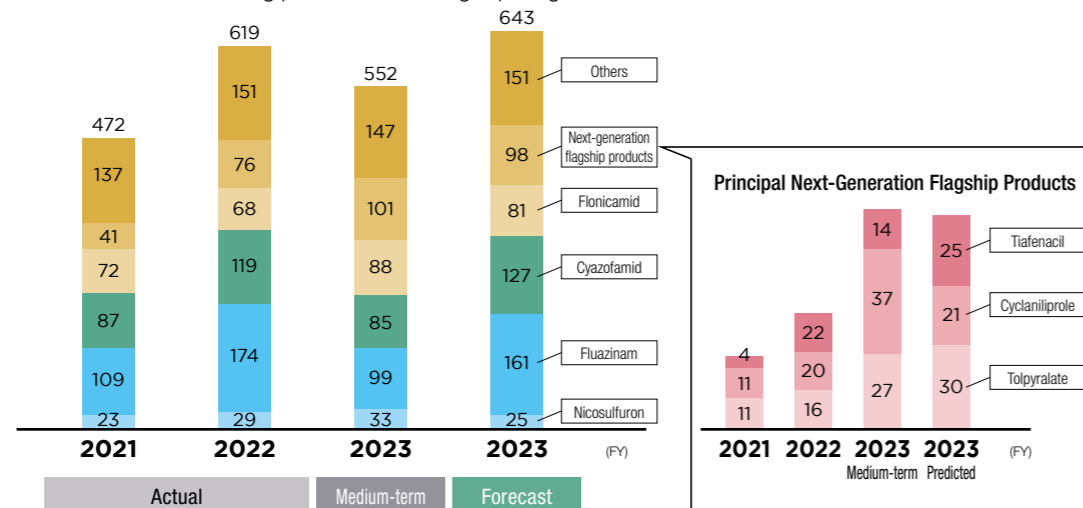
Strategies

Reducing the Manufacturing Cost of Next-Generation Flagship Agrochemicals and Increasing Demand

Tiafenacil is an herbicide jointly developed by ISK and FarmHannong Co., Ltd. (Korea) which is being sold worldwide. Thus far it has been released to market in South Korea, the U.S, Canada, Brazil and various other countries and has been well received by farmers. Since it quickly decomposes and becomes ineffective in the soil, it is used for weeding before crops are planted. This sort of usage is called “burndown.” Compared to previous burndown herbicides, this product stands out for its herbicidal effect on a wide range of weed species. The size of the burndown herbicide market in the U.S. is approximately 200 billion yen, with inexpensive herbicides being used. Given that this product is inexpensive to manufacture, it was able to be introduced into the U.S.’ large market for cheap herbicides as a functional and cost-competitive option. This is an example of how reducing manufacturing costs led to increased demand. In addition to burndown, this product is also used as a withering agent. Harvesting takes longer if there are leaves left on plants like potatoes and grains. Therefore, certain types of herbicides are used to kill the above-ground parts of the crop to make harvesting more efficient. Such herbicides are known as “withering agents.” Another notable feature of this product is that it exhibits a fast-acting herbicidal effect. This fast-acting effect makes it suited for use as a withering agent. We are aiming to further expand sales of this product by widely marketing as a withering agent in addition to being a burndown herbicide.

Agrochemical Sales Plan by Product

- Americas steady expansion of upcoming flagship agrochemical products
- Continued, strong performance of flagship fungicides



Agrochemical Products Developed with Food Problems and Biodiversity in Mind



SDGs Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Agrochemicals contribute to the stability of food production, which helps in achieving a society without hunger.

Agrochemicals contribute to the stability of food production, which helps in achieving a society without hunger. Farms with large cultivated areas and the same crops cultivated over long periods of time are more likely to suffer major damage from pests and diseases. By using agrochemicals, it is possible to control pest and disease damage, thereby helping to ensure harvest yield and quality which, in turn, helps ensure the people of the world are supplied with essential food at a reasonable price.



In order to put an agrochemical on the market, it must be registered in accordance with the laws and regulations of each country. If it cannot be shown, using various data, that it is safe for humans and the environment, that agrochemical will not be registered. Thus, all of the agrochemicals we sell meet the safety standards of each country.



SDGs Goal 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Providing agrochemical products that are developed with biodiversity in mind.

The ISK Group sells a variety of agrochemical products. For example, we sell the agrochemical fluazinam, which is a highly active fungicide used to control various diseases in a wide range of crops. It is not easily taken in by the plant body, has excellent residual effectiveness and rain resistance, and has a strong preventive effect.



Fluazinam has been confirmed to be highly safe for the natural enemies of pests and for beneficial organisms. It is used with a variety of crops in a wide range of areas, including to control soybean Sclerotinia stem rot in Brazil, diseases in turfs in the U.S., and potato late blight and wheat snow mold in Japan. This agent is difficult for fungi to develop resistance to and is effective against fungi which have developed resistance to other fungicides.

Organic Chemicals Business (Healthcare)

The vision for our healthcare business is to sustainably contribute to people's quality of life through our fine chemical technologies and marketing capabilities, and, by capitalizing on the technological strengths which we have cultivated in our organic chemicals business to manufacture and sell animal health products and to perform contract manufacturing of active pharmaceutical ingredients, we are protecting the health of people and animals and contributing to the realization of a fulfilling life both physically and mentally. We bring to market products that address unmet latent needs in human and veterinary medicine, and, moving forward, will promote global expansion not only in Japan but also mainly in Europe and the U.S.

Social Issues and Environment

As the global pet-related market expands, medical need for companion animals (CA) is also expanding. However, the supply of therapeutic agents is not sufficient to meet this need.



Markets

- Animal health products markets in Japan (2021) 123.7 billion yen*1 [including production animals (PA) and CA]
- Health products for CA markets in Japan (2021) About 50 billion yen*2
- Health products for CA markets worldwide (2021) About 2 trillion yen*2

*1 Source: Ministry of Agriculture, Forestry and Fisheries "Annual Report of Sales Amount and Sales Volume of Veterinary drugs, Quasi-drugs, Medical Devices and Regenerative Medicine Products (2021)"

*2 Based on in-house research

Risks and Opportunities

Risks

- The pharmaceutical regulatory data protection period (i.e., the re-examination period) *, which guarantees exclusive sales, is extremely short

*Japan = six years after approval; U.S. = five years after approval; Europe = ten years after approval

- The more appealing the product, the greater the risk of competitors entering the market

Opportunities

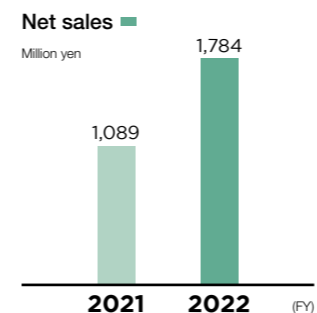
Improve formulations and dosage forms and expand target diseases in order to strengthen the intellectual property protection network and diversify opportunities for use

Create business opportunities by matching excellent existing seed ideas with the plethora of unmet needs in the veterinary medicine market

Strengths and Competitive Differentiation from Competitors

- Business development that integrate the various functions of R&D, marketing, and pharmaceutical regulatory affairs management
- Access to a global market centered on the U.S. and Europe
- Able to develop related products for product lifecycle management; a wealth of seed ideas for new product development

Revenue Trends for Organic Chemicals Business (Healthcare)



Director of Healthcare Business Headquarters
Hiroyuki Watanabe



SDGs Goal 3 Ensure healthy lives and promote well-being for all at all ages

Use healthcare business to sustainably contribute to improvement in people's quality of life.

Strategies

- Goal: Global expansion of animal health products
Focus on technological development and marketing which leverages ISK assets and strengths to maximize added value. Accurately tie research and development results with the needs of the end-user market in order to create value

<Management resources>

- Allocate human resources to ensure effective business development via a synergistic merger of R&D strengths with sales functions.
- Utilize U.S. and European business network-based product development to quickly supply each market.
- Build global alliances with highly specialized partner companies, such as CMOs/CROs and intellectual services companies.
- Utilize our expertise in pharmaceutical manufacturing that conforms to global cGMP (current Good Manufacturing Practices; U.S. pharmaceutical manufacturing quality standards) to build and expand manufacturing collaborations with CMOs in each market.

<Current>

PANOQUELL™-CA1 obtained conditional approval from the FDA in November 2022 as an anti-pancreatitis drug for dogs. We put this drug on the U.S. market in May 2023 through Ceva Animal Health, LLC, a leading animal drug manufacturer.

<Future>

While we have multiple development focuses for animal health products, human pharmaceuticals products and medical devices which we are pursuing commercialization of, our first focus is on developing and expanding the global market for PANOQUELL™-CA1.

Ensuring We Continue to Earn Society's Trust

It is important that ISK Group continue to earn society's trust so that we can grow in a sustained manner. We established the Multi-Stakeholder Policy on February 1, 2023 to build an even better trust-based relationship with our stakeholders.

We place importance on giving back to our employees and giving consideration to our business partners from the perspective of both contributing to the realization of a sustainable society and increasing corporate value through our business. Therefore, we have put into place the following policies to achieve this.

Trust-Based Relationships with Employees

We will concentrate on maximizing added value through sustainable growth and productivity improvement by investing management resources in growth areas, and by developing and boosting our employees' skills.

We strive to continuously return the earnings and results we generate to our employees by increasing salaries at appropriate times and with appropriate methods based on the social conditions and the company's situation, creating an inspiring, fulfilling work environment, and actively nurturing human resources who are innovative and can provide value to society.

Collaboration with Business Partners

We have endorsed the aims of the "the council on promoting partnership building for cultivating the future" promoted by the Government of Japan, The Small and Medium Enterprise Agency, and other organizations, and have released a Declaration on Building Partnerships.

We will strive to ensure all our suppliers and business partners related to our products and services understand and comply with our initiatives, and we aim to build new partnerships by promoting cooperation, coexistence, and co-prosperity with all business partners. Thus, we will fulfill our corporate philosophy of contributing to a better society, life and environment through chemical technologies; respecting shareholders, customers, suppliers, local communities and employees; and abiding by laws and regulations and maintaining transparency in business activities.



Declaration of Partnership Building (in Japanese)

https://www.iskweb.co.jp/cms_QvjyqMOahlEeY67QUd5y4guNNOnpbLYc/wp-content/uploads/2023/01/20221227_f4899c59931190576547cfb6edae0e04.pdf

Communication with Shareholders and Investors

We will help realize a sustainable society through our business activities while building trust-based relationships with society by communicating with all stakeholders, not just customers, suppliers, and employees.

We've put in place structures to promote dialog with shareholders, and we are dedicated to providing continued stable return for shareholders.

1. We have an IR Committee, which reports directly to the president, as an entity charged with formulating the policies and strategies that guide our IR activities, studying how information should be disclosed, and implementing associated measures.
2. We've appointed a director in charge of public relations to oversee issues related to constructive dialog with shareholders and investors.
3. We hold financial result briefings twice a year in spring and fall to provide a forum for communication between top management and institutional investors. During individual interviews with institutional investors, IR officers engage in lively discussions on growth strategies for each of our businesses, shareholder returns, and other topics. Web-based briefings have replaced face-to-face briefings and become standard since the pandemic, making it possible to flexibly respond to interviews.

Trends in institutional investor IR coverage

	FY2018	FY2019	FY2020	FY2021	FY2022
Domestic investors	77	48	39	71	51
Overseas investors	14	19	9	19	21
Total	91	67	48	90	72

No. of participants in company orientations (including online participants since FY2020)

	FY2018	FY2019	FY2020	FY2021	FY2022
May	42	36	call off	35	35
November	39	32	22	38	34
Total	81	68	22	73	69

4. We work to provide the materials we disclose in both Japanese and English to make it convenient for shareholders and investors who don't speak Japanese to learn about our operations. Shareholders' meeting convocations are translated into English in their entirety, including business reports. Those materials are made available on our website, the website of the Tokyo Stock Exchange, and the electronic voting platform used by institutional investors. System for electronic provision of materials for General Meetings of Shareholders starting with our 2023 shareholders' meeting. Related materials are provided electronically and in print earlier than legally required.
5. We host an annual roundtable with major shareholders with voting rights about topics such as our business performance and Corporate Governance initiatives. In addition to reporting views and information from those events to the Board of Directors and sharing them with directors and members of the audit and supervisory board, we use them to improve our governance.



2023 ordinary general meeting of shareholders

Communication with the Local Community

Safety and Disaster Preparedness

Yokkaichi Plant

In preparation for emergencies, Yokkaichi Plant conducts annual joint drills with the plant's Self Disaster Team and the local fire department, which are open to the local residents.

In fiscal 2020 and 2021, due to the impact of COVID-19, we cancelled the joint training with the fire department and the public was, and conducted emergency drills in-house only. But in fiscal 2022, for the first time in three years, we restarted joint drills with the local fire department. We work to improve our level of disaster preparedness each year by adding new elements (such as the use of drones) to the drills.



Joint drill by ISK's Self Disaster Team and the local fire department

Central Research Institute

Comprehensive disaster drills are held for all personnel every September to raise awareness of disaster preparedness. After the drill, the fire department provides us with feedback so we can conduct more effective drills. In fiscal 2022, we erected a smoke house to simulate the fear of smoke and experience evacuation in the event of fire with the cooperation of the fire department, and participants learned how to protect themselves from smoke.



Evacuation drill using a smoke experience house

Community Cooperation Activities

Yokkaichi Plant

We hold regular plant tours twice a year and special classes for students from local junior high school to build further trust with the local community. In terms of social contribution activities, we voluntarily carry out clean-up activities around the plant, and we also place importance on local events and participate in various community-organized events.

Blood Drives



Japanese Red Cross Society Silver Achievement Award presentation

Our Head Office in Osaka and the Central Research Institute hold two blood drives each year, while the Yokkaichi Plant holds three blood drives each year. Between the three of them, the sites attract a total of about 100 donors for each drive. The blood drives have earned ISK letters of gratitude from the governor and from the local branch of the Japanese Red Cross Society. In 2023, the Yokkaichi Plant received a Silver Achievement Award from the Society's Mie Prefecture Branch, making the site one of just 5 corporations in the prefecture to be recognized with the honor and highlighting the extent of its contribution. ISK will continue to hold blood drives as part of its community service program.

Central Research Institute

Employees volunteer to clean up the surrounding area and assist the community association where our dormitory is located to actively communicate with the local community and promote understanding for our business activities.

Family Day 2022 Event

The Central Research Institute organized a Family Day for its employees and their families. The event offered a social gathering with business managers, workplace tours, a lecture on agrochemicals, and chemical experiment workshops. The day was a valuable opportunity for participants to see their family members at work, and the event was a great success. The organizers were confident they especially conveyed the joys of chemistry to the children, who enthusiastically engaged in the experiments. After having their families watch them at work, the employees are more motivated and more engaged with their work.




Experiments to experience chemical reactions

Board of Directors and Executive Officers


Board of Directors (As of June 30, 2023)

- Term of office as Director
- Number of shares held (as of March 31, 2023)
- Attendance at Board of Directors meetings (from June 28, 2022 to June 27, 2023)
- Attendance at Audit & Supervisory Board meetings (from June 28, 2022 to June 27, 2023)



Kenichi Tanaka
Executive Director,
Chairman

■ 9 years
■ 25,727
■ 20/20 (100%)




Hideo Takahashi
Executive Director
President & Chief Executive Officer
Chief Compliance Officer (CCO)

■ 4 years
■ 14,627
■ 20/20 (100%)




Hiroshi Okubo
Director
Managing Executive Officer
Director of Corporate Administration &
Planning Headquarters

■ 1 year
■ 7,900
■ 19/20 (95%)




Kiyomitsu Yoshida
Director, Senior Managing
Executive Officer, in charge of
Organic Chemicals Business

■ 5 years years
■ 10,963
■ 20/20 (100%)




Yasunobu Kawazoe
Director
Managing Executive Officer
Director of Finance & Accounting
Headquarters

■ 4 years
■ 20,814
■ 20/20 (100%)



Masaki Shimojo
Director
Managing Executive Officer,
Director of Inorganic Chemicals Sales &
Marketing R&D Strategy Headquarters
Assistant Director of R&D Strategy Headquarters

■ 3 years
■ 8,014
■ 20/20 (100%)




Tatsuo Hanazawa
Outside Director

■ 4 years
■ 3,300
■ 20/20 (100%)



Satoshi Ando
Outside Director

■ 3 years
■ 1,600
■ 19/20 (95%)



Akemi Uchida
Outside Director


■ New appointment
■ -
■ -

Audit & Supervisory Board Members (As of June 30, 2023)




Yoshihito Akiyama
Audit & Supervisory
Board Member

■ 2 years
■ 5,182
■ 20/20 (100%)
■ 12/12 (100%)




Yoichi Kobayashi
Audit & Supervisory
Board Member

■ New appointment
■ 10,600
■ -
■ -



Norihisa Kusumi
Outside Audit & Supervisory
Board Member

■ New appointment
■ -
■ -
■ -



Yasuhiro Koike
Outside Audit & Supervisory
Board Member

■ New appointment
■ -
■ -
■ -

Skills Matrix, Reasons for Appointment (at the 100th Ordinary General Meeting of Shareholders)

Name Position	Skills matrix							Reasons for appointment
	Vision		Business foundation		Management foundation			
	Corporate management, management strategy	Environment, society	R&D, production	Global business	Legal, risk management	Human resource strategy	Financial accounting	
Director								
Kenichi Tanaka Executive Director, Chairman	✓	✓		✓	✓	✓		Mr. Tanaka has exhibited strong leadership since becoming Executive Director in 2015. In addition to formulating medium-term business plans twice and Vision 2030, our long-term vision for 2030 which serves as the basis for the current medium-term business plan, and managing the entire ISK Group in a precise and efficient manner, he has focused on increasing the effectiveness of the Board of Directors and overseeing the company's operations since becoming Executive Director Chairman in June 2021. He was appointed because of his knowledge in the external environment in which the ISK Group operates and in corporate governance.
Hideo Takahashi Executive Director President & Chief Executive Officer Chief Compliance Officer (CCO)	✓	✓	✓	✓	✓			Mr. Takahashi became Executive Director in June 2021 after working in research, product development, and sales and serving as plant director and director of the R&D Strategy Headquarters. Since his appointment, he has carried out important operational responsibilities and demonstrated appropriate decision-making and supervision in the company's management based on his extensive experience and track record. He was appointed Executive Director with the expectation that he would be a driving force in the company's management through his experience, track record, and leadership towards realizing the Vision 2030 long-term vision.
Hiroshi Okubo Director Managing Executive Officer Director of Corporate Administration & Planning Headquarters	✓	✓	✓				✓	Mr. Okubo has worked in the production, environmental, and safety and health departments at our plant, as well as working in management at an affiliate. He is currently Director of Corporate Administration & Planning Headquarters, where he is in charge of furthering human rights due diligence and DX. He was appointed with the expectation that he would use this experience and expertise in the planning of business strategy and other policies, deliberations, and operational oversight by the Board of Directors.
Kiyomitsu Yoshida Director Senior Managing Executive Officer In charge of Organic Chemicals Business	✓	✓	✓	✓				Mr. Yoshida has worked primarily in areas such as sales, R&D, and research institute operations in ISK's organic chemicals segment. He has carried out important operational responsibilities and demonstrated appropriate decision-making and supervision in the company's management based on his extensive experience and track record. He has been head of ISK's organic chemicals segment since June 2021. He was appointed with the expectation that he would lead the planning of business strategy and other policies, deliberations, and oversight of operations in both bioscience and healthcare.
Yasunobu Kawazoe Director Managing Executive Officer Director of Finance & Accounting Headquarters		✓			✓		✓	Mr. Kawazoe has carried out important operational responsibilities and demonstrated appropriate decision-making and supervision in the areas of finance, accounting, and governance based on expertise in finance and accounting that he accumulated over many years at financial institutions, along with his extensive experience and track record. He has also managed corporate communications activities. He was appointed with the expectation that he would use this experience and expertise in the planning of business strategy and other policies, deliberations, and operational oversight by the Board of Directors.
Masaki Shimojo Director Managing Executive Officer, Director of Inorganic Chemicals Sales & Marketing R&D Strategy Headquarters Assistant Director of R&D Strategy Headquarters	✓	✓	✓	✓				Mr. Shimojo has worked primarily in sales, research, product development, and manufacturing in ISK's inorganic chemicals segment. He has carried out important operational responsibilities and demonstrated appropriate decision-making and supervision in the areas of R&D and domestic and international market expansion based on his extensive experience and track record. He was appointed with the expectation that he would use this experience and expertise in the planning of business strategy and other policies, deliberations, and operational oversight by the Board of Directors.
Tatsuo Hanazawa Outside Director		✓		✓			✓	Mr. Hanazawa offers appropriate advice and oversight, especially in the areas of domestic and international market expansion and the environment, based on his domestic and international experience, particularly in agricultural policy, and his experience in environmental matters. He also contributes actively as the chairperson of the Compensation Committee and as a member of the Personnel Committee and Evaluation Committee. He was appointed with the expectation that he would fulfill his role as an outside director from an independent perspective.
Satoshi Ando Outside Director					✓		✓	Mr. Ando draws on his highly specialized knowledge as an attorney and on his extensive experience and expertise in corporate law to offer appropriate advice and oversight of the company's management from an objective and legal perspective in the areas of law, risk management, finance, and accounting. He also contributes actively as a member of the company's Compensation Committee, Personnel Committee, and Evaluation Committee. He was appointed with the expectation that he would fulfill his role as an outside director from an independent perspective.
Akemi Uchida Outside Director	✓	✓			✓	✓	✓	Ms. Uchida has a wealth of experience in corporate administration and planning, human resources, risk management, finance, and administrative accounting, and has worked as a director of global companies developing, manufacturing, and selling in fields such as pressed car components and refrigeration devices. She was appointed with the expectation that she would support ISK's management through an outside perspective of objectivity and impartiality.
Audit & Supervisory Board Members								
Yoshihito Akiyama Audit & Supervisory Board Member	✓			✓	✓		✓	Mr. Akiyama has worked in administration and sales at ISK and has served as a director and Audit & Supervisory Board member at affiliates in Japan and overseas. He was appointed with the expectation that he would use this experience and expertise in carrying out appropriate auditing and supervision of ISK's business in an objective manner.
Yoichi Kobayashi Audit & Supervisory Board Member				✓	✓			Mr. Kobayashi's experience includes working in organic chemicals and legal at ISK and acting as a director at an overseas affiliate. He was appointed with the expectation that he would use this experience and expertise in carrying out appropriate auditing and supervision of ISK's business in an objective manner.
Norihisa Kusumi Outside Audit & Supervisory Board Member	✓				✓	✓	✓	Mr. Kusumi is well versed in corporate management, having amassed a wealth of knowledge in his many years, including as a director, at financial institutions. He was appointed with the expectation that he would audit ISK's business operations from an independent, fair standpoint.
Yasuhiro Koike Outside Audit & Supervisory Board Member					✓			Mr. Koike has amassed expertise and experience through his work as a lawyer, as well as significant knowledge about managing companies. He was appointed with the expectation that he would audit ISK's business operations from an independent, fair standpoint.



Career

I have been involved with corporate planning and management strategy for a long time and, in the course of that, have not only worked on strategy and numbers but also risk management and human resources strategy from a management perspective. In addition, I have experience with corporate acquisition, both in Japan and overseas, building internal control systems, dealing with scandals and conducting compliance activities. In particular, with regard to risk management, I have been involved with the creation, and subsequent operation, of systems and mechanisms which enable major risks to be addressed properly.

The benefit of all this for me was that, at a young age, I was able to be involved in both offensive and defensive aspects of corporate strategy creation and risk management at the same time, giving me a real sense of what management itself is like.

Risk Management

The most important part of risk management, I believe, is corporate culture.

Although I have only just become an outside director for ISK, my first impression has been that, with regard to integrity, which is of utmost importance in risk management, all of the directors at ISK, starting with Chairman Tanaka and President Takahashi, demonstrate great integrity in how they handle matters. A substantial range of information is reported to the Board of Directors meeting, which both inside and outside directors thoroughly discuss through a free and open exchange of opinions.

When developing systems to prevent scandals, accidents and other such situations, an overly strict system will prevent problems from

occurring but at the expense of any dynamic freedom in conducting corporate activity. Of course, you need to create systems which will head off potential scandals, but I feel that an important consideration is the sincerity with which problems are addressed when they do occur. Getting this wrong will impact a company's fortunes.

To ensure corporate longevity, I believe it is important to reduce these sorts of negative risks as much as possible and, when the occasion arises during discussions among the Board of Directors meeting, I would like to respond to such risks by stopping whatever needs to be stopped and promoting whatever needs to be promoted.

Diversity

I am ISK's first female director, but that does not mean I think we should just go out and get a bunch of female employees for whatever reason. This is because I believe diversity means creating an environment where it is considered normal to have all sorts of different people with all sorts of different characteristics, including young and old, men and women, LGBTQ, different nationalities, etc.

Why do we even focus on diversity in the first place? Because we want to grow our business, plain and simple. When we consider Japanese steadily declining working population, and when we think about it from a global business perspective, does it seem like a good idea to employ only men, only Japanese? In order to expand our business around the world, is it not essential that we incorporate more diverse ways of thinking? I also feel it is important that we give attention to those who are underrepresented.

Nearly all of my corporate life has been a series of firsts as a minority member of a company: the first female manager, the first executive or the first director who has transferred, etc. Because minorities are sometimes the only ones who are different and have different opinions to everyone else, they must always be able to explain and persuade others of their view.

No doubt this is an experience commonly encountered by employees who are posted overseas. Views which are taken for granted in your own country may be treated as incomprehensible by those around you while you are posted overseas. Hence, you will regularly need to explain and persuade others of your views. Personally, I have those sorts of experiences even within my own country. I have found this sort of minority experience to be useful when pursuing business globally, capitalizing on it in the course of operations following acquisition of an American company.

I feel that ISK already has a diversity-friendly foundation in place; so, I would like to focus first on increasing opportunities for meeting and dialoging with a variety of different people.

New Business

At the company I was with most recently, one of the things I was working on as a corporate officer was branding for IT-related equipment. We had a keyboard with advanced functionality aimed at specialists, namely programmers and researchers, and, although it was a niche brand, we were attempting to increase awareness among general users about the advantages of the keyboard's functions.

I believe that pursuing new business is an important part of management. I also feel that there is something appealing about creating something new. Although the business which ISK is involved with differs from that which I was directly involved with previously, I am interested in digging deeper into problems in marketing. I am keen to put my B to C experience to use in whatever form.

Building an Effective System Without Having a False Sense of Security

Outside Audit & Supervisory Board Member

Norihisa Kusumi



I joined The Daiwa Bank, Limited (now Resona Bank, Limited) in 1987, and after 33 years of working for banks and three years working for a bank-related company, I came to ISK thanks to a connection I have with this company.

I worked at five group banks and holding companies and gained first-hand experience working as a branch manager at a variety of locations in Osaka. At the head office, I worked in various departments, including corporate governance, human resources and auditing.

My impression of ISK as an outsider was that it was a historically trailblazing company. I felt that it was a company possessed of great foresight and the strong determination to stick to its convictions. It was also evident that, following the unfortunate incident of the past, the company was pulling together as one to restore people's trust in it.

The company I come from, Resona Holdings, Inc., is a company which has experienced a management crisis.

"Stop thinking that banks are somehow special. You are part of the service industry!" That was the harsh change of mindset which the outside officers appointed to rebuild corporate management brought with them following our acceptance of public funding.

In terms of control system, we transitioned to being a company with a nominating committee. This was done to strengthen and ensure the thoroughness of our corporate governance. I cannot forget the tension of the Board of Directors, the majority of which was made up of outside directors.

While many companies in recent years actively pursue corporate governance as an "offensive measure" essential for sustainable growth and not simply as a means of preventing scandals, the key to achieving this is focusing on the development of systems which are effective without having a false sense of security. I believe this requires, first, "fostering a healthy awareness of crisis," second, a "shared awareness down to the smallest structural detail," and, third, a "organizational culture of openness in which people don't overlook changes."

I will do my utmost to use my experience for the benefit of ISK.

Cultivating a Culture Inconducive to Compliance Violations

Outside Audit & Supervisory Board Member

Yasuhiro Koike



I have been involved in ISK compliance-related duties as an outside attorney since 2011, including serving as a member of ISK's Compliance Committee and serving a contact person for the ISK legal hotline. The first time I heard the word "compliance" was around 1998 while working in connection with a finance-related organization. My appreciation of how important compliance is for companies came later as I worked on a criminal case involving food fraud. A quarter of a century has passed since then, and, although the meaning of "compliance" may continue to change, its importance only grows.

Up until now I have only ever observed ISK as an outsider, and my impression was that the majority of ISK's various department heads and managers were extremely polite, professional, smart, and not pushy with their opinions (although there were, of course, exceptions). However, since my appointment as an audit and supervisory board member, I have been a witness to the honest and uncompromising exchange of opinions which takes place during important company meetings, particularly meetings of the Board of Directors and Executive Management Committee. At these meetings I get a real sense of a culture of openness. I would like for this culture of openness to be pervasive company-wide.

Reports of harassment, such as power harassment, made via the ISK legal hotline and other reporting avenues available to employees are rare compared with other companies; however, that does not mean that there is no power harassment at ISK. Power harassment can be factor which leads to employees committing, or being unable to prevent, serious compliance violations, such as when an employee commits an illegal act because his or her superior has imposed an unreasonable quota, or when an employee knows of an illegal activity taking place but is unable to tell anyone about it. Power harassment is something which can happen all around us and which is often linked with serious compliance violations.

It is from that perspective that I want, first, to eliminate power harassment at ISK in order to facilitate the cultivation of a corporate culture which is inconducive to compliance violations.

Basic Policy

In addition to making contributions to social development, protection of life and environmental preservation, ISK strives constantly to respect our shareholders, customers, suppliers, local communities and employees while maintaining transparency in business activities abiding by laws and regulations.

In order to enhance corporate value by maintaining steady business growth and securing profitability, efforts to improve business transparency, reliability and corporate health are among management's most important concerns, and we have worked hard to strengthen Corporate Governance through business management and enhanced internal controls founded on compliance.

Corporate Governance Structure

Structurally, we operate as a company with an Audit & Supervisory Board. In addition, we set Executive Management Committee under the Board of Directors in order to speed up decision-making by the Board of Directors and efficiently monitor and assess progress in important activities and projects. We have also introduced Executive Officer system with the aim of speeding up decision-making related to business activities.

Furthermore, we have the committees listed on the following page in order to strengthen our Corporate Governance.

The supervision and solving of important issues related to climate change, digital transformation (DX), and human capital are carried out on a company-wide basis by the Sustainability Promotion Committee, which is chaired by the Executive Director and President.

Sustainability Promotion Committee Activities

The committee convened three times in fiscal 2022 and has met twice so far in fiscal 2023. The following matters have been deliberated on in the past year.

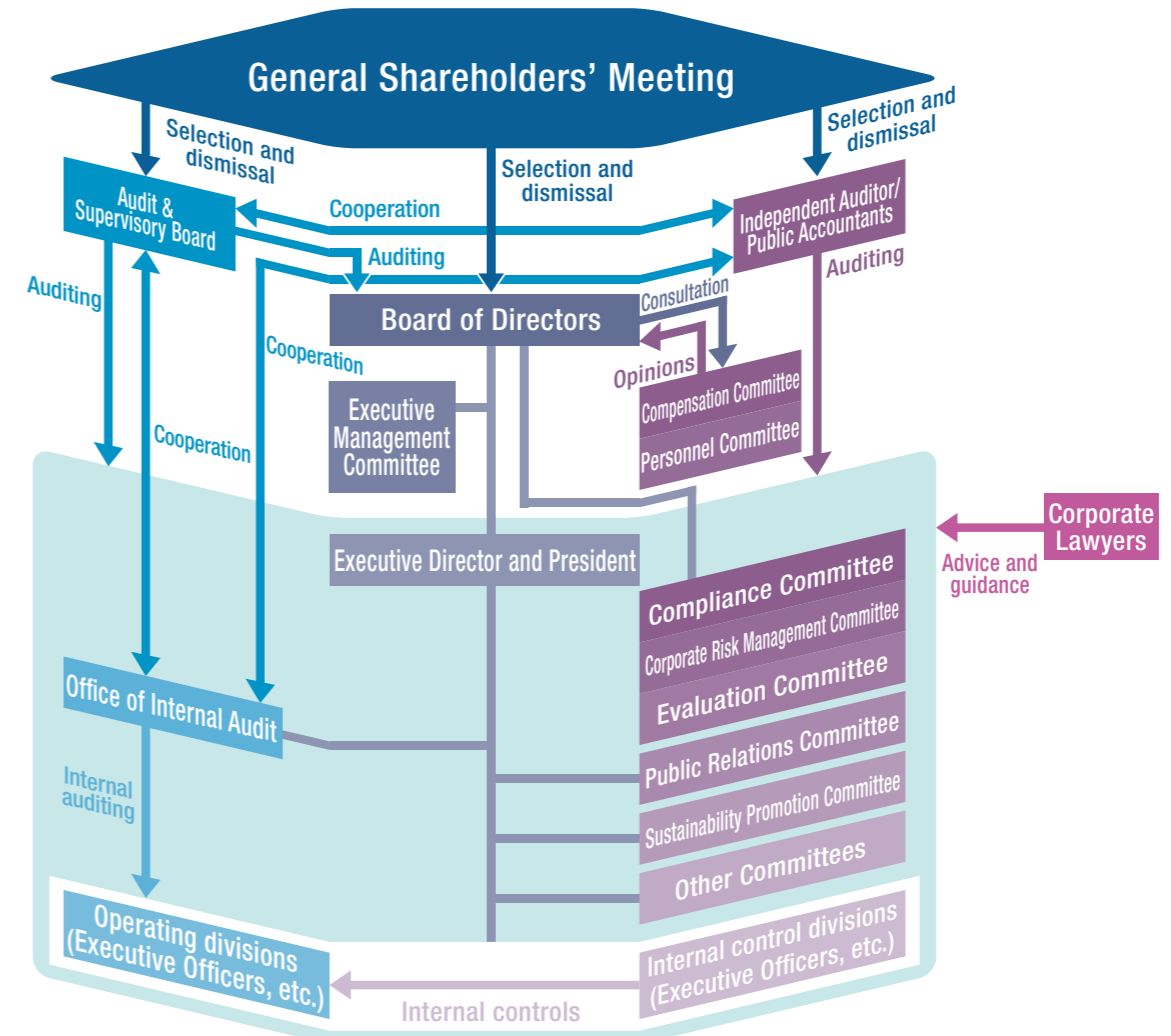
- Identifying priority risks in human rights measures
- Expansion of scope of coverage of TCFD

In addition to existing initiatives [climate change, human rights due diligence, health and productivity management, our Integrated Report, and digital transformation (DX)], we have begun pursuing human capital-based management.



Sustainability Promotion Committee

Corporate Governance Structure



Major Organizational Entities Related to Corporate Governance

Board of Directors	Functions	The Board of Directors meets at least once a month to make decisions concerning important matters, report on the progress of operational execution and action plan implementation, review performance, and discuss and make decisions about how to deal with related issues.	
	Times convened	18 times	
	Composition	Chairperson	Executive Director and President
Members		Directors	
Executive Management Committee	Functions	The Executive Management Committee under the Board of Directors in order to speed up decision-making by the Board of Directors and efficiently monitor and assess progress in important activities and projects.	
	Times convened	13 times	
	Composition	Chairperson	Executive Director and President
Members		The chairperson may require the attendance of such personnel as deemed necessary.	
Audit & Supervisory Board	Functions	Audits the Board of Directors' execution of its responsibilities, for example by attending Board of Directors and other important bodies and visiting departments regularly to exchange views in accordance with an audit plan adopted by the Audit & Supervisory Board, at least half of whose membership consists of independent Outside Audit & Supervisory Board members.	
	Times convened	12 times	
	Composition	Chairperson	Inside Audit & Supervisory Board member
Members		Inside Audit & Supervisory Board members, independent Outside Audit & Supervisory Board members	
Compliance Committee	Functions	Develops compliance structures based on the corporate philosophy and promotes corporate management predicated on compliance, for example by conducting compliance education and responding to the issues that come from its whistleblowing system.	
	Times convened	2 times	
	Composition	Chairperson (CCO)	Executive Director and President
Members		Directors, Headquarters Directors, Outside lawyer, ISK Labor Union chairperson Directors of major subsidiaries	
Corporate Risk Management Committee	Functions	Assesses and manages corporate risk incurred in the course of operations, formulates countermeasures, and deals with risks that have manifested themselves	
	Times convened	2 times	
	Composition	Chairperson	Executive Director and President
Members		Inside Directors, Headquarters Directors	

Evaluation Committee	Functions	Analyzes and evaluates the overall effectiveness of the Board of Directors		
	Times convened	1 times		
	Composition	Chairperson	Independent Outside Audit & Supervisory Board member	
Members		Independent Outside Directors, Inside Audit & Supervisory Board members, Independent Outside Audit & Supervisory Board members		
Note: Five of seven positions on the committee (71%) are filled by independent Directors and Audit & Supervisory Board members.				
Compensation Committee	Functions	Offers views in response to requests for advice from the President, who is delegated by the Board of Directors about concerning the remuneration of directors and executive officers.		
	Times convened	2 times		
	Composition	Chairperson	Independent Outside Director	
Members		Independent Outside Directors, Independent Outside Audit & Supervisory Board members		
Note: All five positions on the committee (100%) are filled by independent officers.				
Personnel Committee	Functions	Responds to inquiries from the President, who is delegated by the Board of Directors about the appointment of CEO's successor and candidates for new Director or Audit & Supervisory Board member positions, as advising the Board of Directors		
	Times convened	5 times		
	Composition	Chairperson	Independent Outside Director	
Members		Independent Outside Directors, Independent Outside Audit & Supervisory Board members		
Note: All five positions on the committee (100%) are filled by independent Directors and Audit & Supervisory Board members.				
Public Relations Committee	Functions	Ensures transparency by disclosing information to investors in a timely manner, ensures the timely disclosure of information from Yokkaichi Plant to the local community, and promotes communication between our stakeholders and the company		
	Composition	Chairperson	Executive Director and President	
		Members	Directors, Representatives of Branches, Headquarters Directors, and others	
Sustainability Promotion Committee	Functions	Undertakes initiatives to address climate change, human rights, diversity and inclusion, health and productivity management, and DX		
	Times convened	3 times		
	Composition	Chairperson	Executive Director and President	
Members		Inside Directors, Headquarters Directors, and others		

Board of Directors Effectiveness Analysis, Evaluation, and Results

In view of the responsibilities for Boards of Directors stipulated in the Corporate Governance Code, and in order to improve the functioning of the Board of Directors, an Evaluation Committee comprised of Outside Directors and Audit & Supervisory Board members has been established under ISK Board of Directors and in line with Board of Director evaluation-related rules. Every year since fiscal 2016, this committee has analyzed and evaluated the overall effectiveness of the Board of Directors and provided the Board with its results for deliberation and approval, after which an outline of those results is released publicly. In fiscal 2022, as well, an evaluation of the Board of Directors' overall effectiveness was carried out in accordance with this policy.

Method of Evaluation

In fiscal 2022, the number of questions on the evaluation was changed to 38 from 39 in fiscal 2021. Regarding this change, the number of issues to deal with in fiscal 2022 decreased, and for one issue each question was divided into three items, with the other 30 items being the same as the questions in fiscal 2021.

Again this year, we invited participants to freely offer their opinions of the Board of Directors' overall effectiveness as part of the self-evaluation, and we increased the size of the space for participant comments to better solicit views from directors and Audit & Supervisory Board members.

The Evaluation Committee gave this questionnaire to all Directors and Audit & Supervisory Board members. The responses were analyzed and evaluated, after which all 9 Directors were interviewed. Based on the evaluation results report from Evaluation Committee, our Board of Directors made a determination on the evaluation of the overall effectiveness of the Board of Directors for fiscal 2022.

Analysis and Evaluation Results of Overall Board of Directors Effectiveness

1. Areas, participants' evaluations and factors

- (1) Comparing the fiscal 2021 and 2022 assessments of the areas, except for one area (composition of Board of Directors), fiscal 2022 achievement was higher in all seven areas. Of these, achievement level exceeded 90.0% in three areas.
- (2) Average overall achievement for participants increased from 76.9% (90-99% for three participants, 80-89% for three, 70-79% for two, and 60-69% for five) in fiscal 2021 to 84.4% (90-99% for four participants, 80-89% for six, and 70-79% for three) in fiscal 2022. Analysis shows that the reason for this increase is that ISK pursued improvement and reform against a background of higher expectations for boards of directors of companies; for example, satisfying the principles required by the Prime Market (both principles and supplementary principles), and management in line with the SDGs and ESG.

2. Ensuring the Board of Directors' Overall Effectiveness

While the goal is to ensure overall Board of Directors effectiveness, the results differed significantly for inside directors (90.0%) and Evaluation Committee members (80.3%). This worked out to an overall average of 84.8%, almost the same as the average for participants of 84.4%. This indicates that the Board of Directors' overall effectiveness is being assured.

Awareness of Issues

Based on the promise we made to stakeholders in our Integrated Report, we have formulated a strategy to create value in the ISK Group. To achieve the foundation for this, we are aware that we must continue to raise the viability of the entire Board of Directors. To this end, we must focus on issues where there has been low achievement for the past seven years: by strengthening the practical functions of the internal audit departments, and by strengthening collaboration between internal audit departments and Directors and Audit & Supervisory Board members. The Board of Directors is looking earnestly at these issues and will continue to ensure that higher evaluation of viability will lead to sustainable growth for the company and increase our medium- and long-term corporate value.

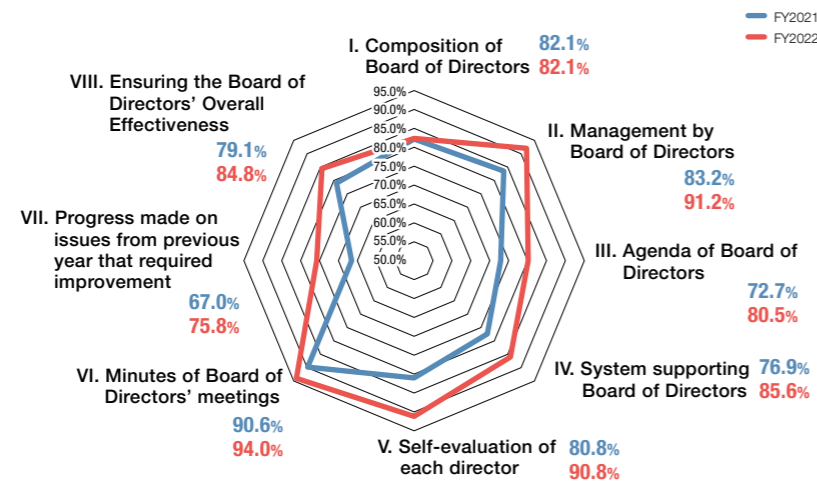
Future Initiatives

Based on the analysis and evaluation results of the overall Board of Directors effectiveness, the Board of Directors has identified the following six priority initiatives for fiscal 2023, which it is proactively pursuing in order to achieve substantial improvement in its overall effectiveness.

- (1) An issue dealt with last year was how the Board of Directors and Executive Management Committee operate in terms of their positioning and roles. The Executive Management Committee is where important matters are first deliberated on, and here directors and Audit & Supervisory Board members put forth opinions upon. This results submitted to the Board of Directors as the final bill, then the Board of Directors discuss. At the Board of Directors, the Executive Management Committee members explain their main points, point out effects on business performance and risks that have manifested themselves, make rational decisions towards formulating a bill, and strive for prompt, effective decision-making. Meetings are also held with Outside Directors in order to provide them with the comprehensive information they require on important matters.
- (2) The ISK Group's corporate purpose is "To continue contributing to better living environments through chemical technologies." This purpose is the starting point for our core competence of chemical technologies, around which we have our three strengths: the ability to develop proprietary technologies; the ability to accommodate quality and environmental requirements; and the ability to collaborate globally. These are supported by our management capabilities, which we leverage to expand our business. To continue growing, we believe it is crucial to make maximum use of our ability to develop proprietary technologies to foster new businesses and strengthen our management foundation. The Business Creation Committee, a cross-organizational committee chaired by the President, studies matters intensively on a short-term basis. However, we will further speed up processes towards the start of new businesses and new products by engaging in free and vigorous discussion.

- (3) We will work to substantively strengthen the functions of our internal audit departments and to ensure collaboration between directors and members of the audit and supervisory board. We will also actively use the results of internal audits and other investigations to inform advice and action so that directors can contribute not only in their own area of responsibility, but also to management as a whole.
- (4) To ensure active oversight of group companies' operations, we will require regular reporting on risks and issues while working to ensure sufficient oversight of directors' performance of their responsibilities and contributions to overall management.
- (5) In addition to pursuing their own studies, for example to acquire necessary knowledge so that they can fulfill their own roles and responsibilities, directors must provide sufficient oversight of their peers' performance of their responsibilities.
- (6) We will address issues related to sustainability, ensuring that the state of their progress and matters requiring discussion are deliberated by the Sustainability Promotion Committee, communicated clearly to outside directors and members of the audit and supervisory board, and included in the form of general information in the Integrated Report.

• Evaluation Results of the Effectiveness of the Board of Directors (fiscal 2022)



Policy on Cross-Shareholdings

ISK maintains an amount of cross-shareholdings deemed to build a smooth, stable, and ongoing relationship with business partners, in line with our business strategy. The status of cross-shareholdings is disclosed in our securities report. Other shareholdings have been appropriately reduced.

Independence Criteria for Outside Directors

Independence criteria have been established for Outside Directors and Audit & Supervisory Board members. These appear on the ISK website.

About ISK: Corporate Governance

<https://www.iskweb.co.jp/eng/company/governance.html>

Basic Policy for the Internal Control System

We are continually working to expand and improve our Group internal control systems in order to ensure the appropriateness of subsidiary governance as well as the maintenance of compliance systems. For details, please refer to ISK Corporate Governance Report.

Corporate Governance Report (in Japanese)

https://www.iskweb.co.jp/company/pdf/corporate_governance.pdf?

Remuneration of Directors

Policies for Determining Amount and Calculation of Each Director's Compensation

Compensation for ISK directors is stipulated in the Officer Compensation Regulations adopted by the Board of Directors and comprises base remuneration, which is based on job position, and performance-based remuneration. Base remuneration is paid according to the Officer Compensation Regulations to directors and executive officers according to their role and position. Outside directors are paid only base remuneration due to their independent position in executing duties.

Policies for Determining the Nature of Performance Indicators and for Calculating the Amounts and Quantities of Performance-Based Remuneration and Other Compensation

The performance-based portion of directors' remuneration (excluding Outside Directors) consists of annual performance-based remuneration and long-term performance-based remuneration, which are structured to ensure both objectivity and a connection with corporate performance in line with the Officer Compensation Regulations approved by the Board of Directors. Annual performance-based remuneration is calculated based on a comprehensive consideration of the company's performance, for example in the form of net income attributable to owners of parent, which is the final result of corporate activities, together with individual performance evaluation.

Policies for Determining Non-Monetary Remuneration and for Calculating Associated Amounts and Quantities

The non-monetary portion of directors' remuneration (excluding Outside Directors) consists of transfer-restricted shares, and the total amount of monetary claims necessary to grant those shares to directors (excluding Outside Directors) may not exceed ¥90 million per year (excluding the employee portion for officers who also serve as employees). In addition, the total number of normal shares newly issued or disposed by the company may not exceed 95,000 per year. (However, if it becomes necessary to adjust the total number of normal shares that are issued or disposed of as transfer-restricted shares, for example due to a stock split or reverse split involving normal shares, including any gratis allocations, the total number may be adjusted within reason.) The Board of Directors is responsible for determining the specific timing and distribution of such awards to directors.

Relative Proportions of Remuneration and Other Compensation for Individual Directors

The relative proportions of base remuneration and performance-based remuneration and other compensation is determined by the Board of Directors after consultation with the Executive Director and Chairman, taking into account advice sought from the Compensation Committee by the Executive Director and President, to whom the Board delegates the task of considering each year's performance and other factors.

Policies for Determining the Timing and Conditions of Remuneration and Other Compensation for Directors

The Officer Compensation Regulations adopted by the Board of Directors stipulate that base remuneration is calculated on a monthly basis and paid on the same day as employees' monthly salaries, while performance-based remuneration and other compensation is paid on the same day as employees' summer bonus.

• Remuneration of Directors in Fiscal 2022

Director category	Total remuneration (Million yen)	Total remuneration by type (Million yen)			Applicable Directors (Persons)
		Base remuneration	Performance-based remuneration	Transfer-restricted share compensation	
Directors (excluding Outside Directors)	237	179	51	6	7
Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members)	36	36	—	—	2
Outside Directors	55	55	—	—	5
Total	329	271	51	6	14

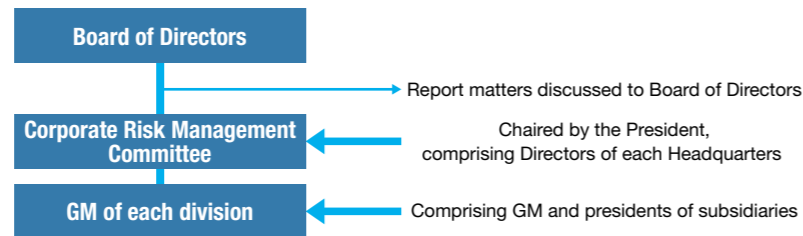
Basic Policy

We in the ISK Group pursue risk management with the aim of preparing for various risks that could seriously impact the smooth operation of our business, and in the event of an emergency, appropriately and swiftly addressing it in order not to harm the health, safety, or interests of stakeholders, restoring our business operations as soon as possible, protecting our corporate resources, and minimizing the damage to our business.

Risk Management System

We have “risk management regulations” governing our basic policy on risk management and risk management system. We have also established the Corporate Risk Management Committee, aimed at appropriately managing and preparing for various risks surrounding our business. The Corporate Risk Management Committee is held twice a year, or whenever necessary, summarizing risk assessments, selecting major risks with high priority, discussing plans for risk countermeasures, and confirming progress on those countermeasures.

The Sustainability Promotion Committee’s jurisdiction includes priority issues (Materiality), climate change risk, and human rights risk, for which it advances their measures in coordination with the Corporate Risk Management Committee.



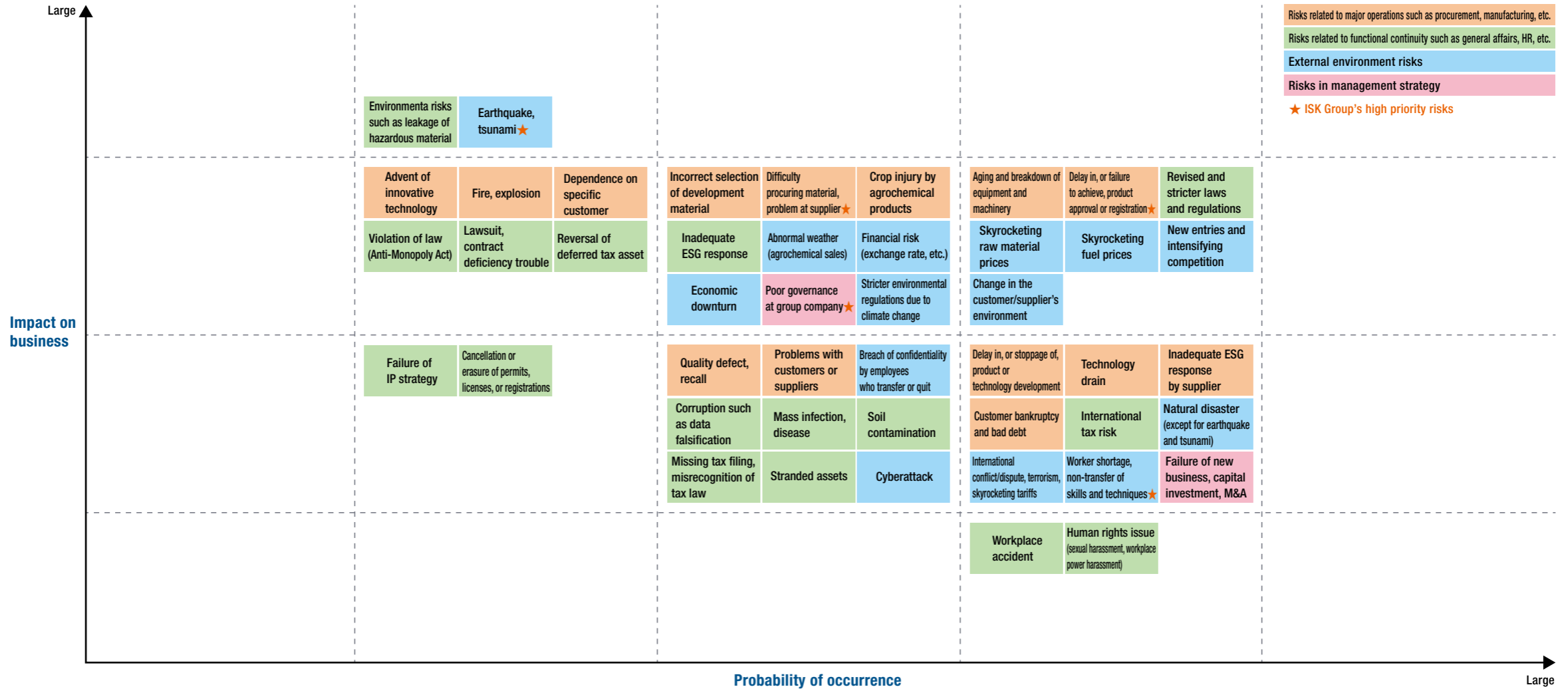
Risk Management Process

Plan	Do	Check	Act
<ul style="list-style-type: none"> ■ Implement risk countermeasures Identify risks from a company-wide perspective Assess risk impact and probability Select major risks to address ■ Formulate countermeasure plans against risk Allocate risks to each person/division in charge Decide on risk countermeasure policies Decide on action plan for countermeasures 	<ul style="list-style-type: none"> ■ Implement risk countermeasures 	<ul style="list-style-type: none"> ■ Monitor progress on implementation of countermeasures Report to management Review progress on implementation 	<ul style="list-style-type: none"> ■ Summary and improvement plan Report to management Consideration on countermeasure plans

High Priority Risk

Major Risk	Explanation of Risk	Major Measures
Delay in, or failure to achieve, product approval or registration (agrochemicals and animal health products)	[Agrochemicals] Risk of postponement, or abandonment, of launch of new agrochemicals due to stricter agrochemical-related regulations	<ul style="list-style-type: none"> • Take proper approach to countries’ registration agencies and authorities • Assess other companies’ agrochemicals registration and survey their registration status • Secure personnel with expertise in highly specialized fields, ensure handover of registration know-how
	[Animal health products] Although PANOQUELL™-CA1 has received conditional approval from the FDA in the U.S., there is a risk that final approval will be denied or postponed in the U.S., or that approval will be denied or postponed in Europe	<ul style="list-style-type: none"> • Use consultants and other means to gather information on trends related to the rules and approval of the regulatory authorities • Team up with contract manufacturers or sales partners
Earthquake, tsunami	Risk of damage to facilities and products, suspension of production and business operations, and human casualties if the plant should suffer serious damage due to tsunami, liquefaction, or other factors resulting from a large-scale earthquake	<ul style="list-style-type: none"> • Provide aging facilities with seismic reinforcement • Step up product storage at multiple bases(at elevated locations, etc.) • Update business continuity plans • Get business interruption insurance to cover business continuity expenses as a response after earthquake • Sign committed line of credit with financial institutions, which is applied to earthquake disasters
Difficulty procuring material, problem at supplier	Risk of supply shortage for specific raw materials due to operational accidents, political instability, or stricter environmental regulations in producing regions or countries. In the case of overseas toll manufacturers, risk of limitations on procurement due to stricter regulations in the country or their operational accidents	<ul style="list-style-type: none"> • Purchase from various suppliers in multiple countries • Closely coordinate with subcontractors and suppliers • Perform rapid planning adjustment and proper inventory control • Expand the range of usable raw materials
Poor governance at group company	Risk of accounting fraud, bribery, or quality fraud because of lack of thorough control over overseas group companies	<ul style="list-style-type: none"> • Organize and clearly stipulate the functions and roles of Three Lines model (business divisions, back-office divisions, internal audit division) • Make rules for group companies • Refine and publicize internal rules, strengthen internal auditing
Worker shortage, non-transfer of skills and techniques	Risk of not securing human resources, or skills and techniques not being passed from the experienced to younger employees, due to fewer young people, an aging population, change in the supply–demand balance of the labor market, and increased job mobility	<ul style="list-style-type: none"> • Hire employees through diverse channels • Compile know-how • Train human resources, and study ways to make work environment more pleasant and expand employee support systems so as to retain employees

Risk Map



Risks related to major operations such as procurement, manufacturing, etc.

Risks related to functional continuity such as general affairs, HR, etc.

External environment risks

Risks in management strategy

★ ISK Group's high priority risks

Notes:

- Regarding level of effect on business and probability of occurrence, we set risk scenarios and assess each risk impact or damage in order for assessors to have a common understanding. The risk scenario used here is a worst-case scenario, i.e. the biggest threat among the possibilities.
- ISK defines risk as any possibility of physical or economic damage to ISK, loss of trust, or others causing disadvantages.

Basic Philosophy

ISK Group places the utmost importance on compliance. We have formulated a code of conduct in order to carry out business rooted in our corporate philosophy, with the aim of thoroughly complying with laws and regulations, conducting fair and equitable business practices, and maintaining a high level of corporate ethics.

Because a company cannot exist without society's trust, we have launched a Compliance Committee towards fulfilling our corporate responsibility and contributing to society. The committee puts compliance front and center and ensures that we promptly report any compliance violations.

ISK Group Code of Conduct

<https://www.iskweb.co.jp/eng/compliance/observance.html>

Compliance Promotion System (Overview)

Based on our reflection on the Ferosilt problem, in November 2005 we appointed a Chief Compliance Officer (CCO) and established the Compliance Committee. This committee operates under the Board of Directors and is chaired by the President (as CCO), and comprises directors (excluding outside directors), directors of each headquarters, audit and supervisory board members, affiliate presidents, a labor union representative, an outside lawyer, and the secretariat. In addition, each division has a compliance promotion manager and a compliance leader. The Compliance Committee has met about twice a year. It currently meets every March and September, with March 2023 marking the 34th session.

Highlights from recent years include the following.

- Discussion and revision of the ISK Group Code of Conduct
- Discussion of and response to whistleblowing and requests for consultation in relation to compliance violations
- Preparation and monitoring of compliance training plans
- Report on and discussion of compliance activities in each division
- Training for board members, held every second year, led by outside instructors
- Establishment of Whistleblowing Rules

Rules state that any person acting unjustly towards a whistleblower will be subject to disciplinary action.

As for the number of cases of whistleblowing or consultation related to compliance in recent years, there were two in fiscal 2018, four in fiscal 2019, four in fiscal 2020, two in fiscal 2021, and eight in fiscal 2022.

Video on ISK's History of Compliance Activities

In order to keep past instances of compliance violations in mind, a video called "ISK Group Compliance History" was created and has been viewed by all constituents. The video shows what ISK has been doing to regain the public's trust and conveys the importance of being in compliance.

Fiscal 2022 Compliance-Related Training and Awareness-Raising at ISK

ISK Group carries out compliance-related training in accordance with an annual plan, which is discussed and approved by the Compliance Committee. Besides job grade-specific training, training on specific topics is planned and carried out according to social conditions. Many ISK Group members joined training.

■ Online learning and e-learning for new employees and other employees

Focus: General compliance-related basic training

ISK: 60 employees, Affiliates: 13 employees Total: 73

■ Advanced compliance training for newly appointed assistant managers

Focus: Development of human resources who facilitate compliance-based management

ISK: 8 employees, Affiliates: 1 employees Total: 9

■ Group training for newly appointed managers

Focus: Acquisition of compliance knowledge required by managers

ISK: 11 newly appointed managers

■ E-learning on personal information protection laws for ISK Group managers

Focus: Understand what personal information is and learn what rules company employees should abide by

ISK: 364 ISK Group managers

■ Workplace-specific specialized law seminars

- These seminars give participants knowledge on laws covering their particular division with the goal of strengthening adherence to laws, the basis of compliance.
- Managers select specialized laws that relate to their division and about twice a year lead seminars in their division.
- Workplace members take turns being the instructor in sessions in which they explain specialized laws, thus raising workplace knowledge from the bottom up.

■ Compliance library training program

- Employees watch videos about compliance issues that they face every day at work. Videos format examples include 3-minute dramatizations and instructional videos made in-house.
- Instructors in the program are senior position managers in each workplace in turn.
- In fiscal 2022, a cumulative total of 819 sessions were held, including the specialized law seminars and library training, with a cumulative total of 10,483 participants.

Road to Rebuilding Trust as the New Ishihara Sangyo

It has been fifteen years since the comprehensive compliance audit conducted in March 2008. We have learned much from reflecting on our response to the series of environmental scandals which began with the Ferosilt problem. As we head towards Vision 2030 Stage II, we will examine what ISK's approach will be and what efforts have been made thus far.

The Ferosilt Problem and the Comprehensive Compliance Audit

Ferosilt, a soil backfilling material developed as means for reducing industrial waste, had been on the market since 2001. However, when amounts of hexavalent chromium and other substances exceeding environmental standards were detected in areas where Ferosilt was used, we did our utmost to carry out a voluntary recall of the product. The amount of Ferosilt sold was 720,000 tons in total, but, because it was mixed in with sand and soil at the backfilling sites, the amount of material collected was more than twice that, approximately 1,880,000 tons. All Ferosilt was collected at a total cost of around 60 billion yen. Final disposal of the material was completed in 2015, ten years after collection began.

In 2008, the ISK Group conducted a comprehensive compliance audit based on a questionnaire survey of all Group members. From the results, we identified seven cases of past misconduct that had a significant external impact, and, after disclosing these, undertook corrective action and improvement.

Completion of Removal of Illegally Buried Waste at the Yokkaichi Plant

In 2017, we began removing to a disposal site waste which was illegally buried at the Yokkaichi Plant (two locations on that grounds of the northeastern part of the plant and the plant site embankments) and discovered through a comprehensive compliance audit. Under normal circumstance, this illegally buried waste should have been removed immediately, but, given the complications surrounding the Ferosilt problem situation, it took a long time until all the waste was removed.

In March 2022, all removal work was completed, a Completion Report for the Removal of Waste Buried at the Yokkaichi Plant was submitted to Mie Prefecture, and land leveling work in the area was also completed.



2018
Removal work is underway



2023
Land leveling work is completed

Working to Regain Lost Trust

In the wake of the Ferosilt problem, we have worked to improve our corporate structure, company operations and internal culture for the primary purpose of revising our compliance system and building an organizational structure possessing a culture of openness.

(1) Active disclosure of information

With the aim of greater plant transparency, we provide tours of the Yokkaichi Plant to local residents. Also, we have established voluntary emission standards which are stricter than legal and regulatory standards for wastewater, waste gas, wastes and various other environmental impact substances, and, in addition to displaying actual values in real-time on an environmental information bulletin board in front of the Yokkaichi Plant's main gate, we disclose environmental data on our homepage and elsewhere (in Japanese).

(2) Establishment of an Environmental Expert Committee

In 2008, we established an Environmental Expert Committee, chaired by an outside expert, in response to the identification of contaminated soil and underground water at the Yokkaichi Plant site. In line with the Committee's guidance, we implemented various measures, including ascertaining the status of contamination on the plant premises, installing barrier wells and pumping up underground water. We have confirmed that the installation of barrier wells prevents contaminated underground water from spreading beyond the premises via the underground water vein. Also, in 2022, we began enclosing high-concentration pollution sources with purification agents (hot spot measures) and are monitoring progress.



Inspection of barrier wells by the Environmental Expert Committee

Environmental Expert Committee website (in Japanese)

<https://www.iskweb.co.jp/kankyou/>

(3) Conducting compliance education

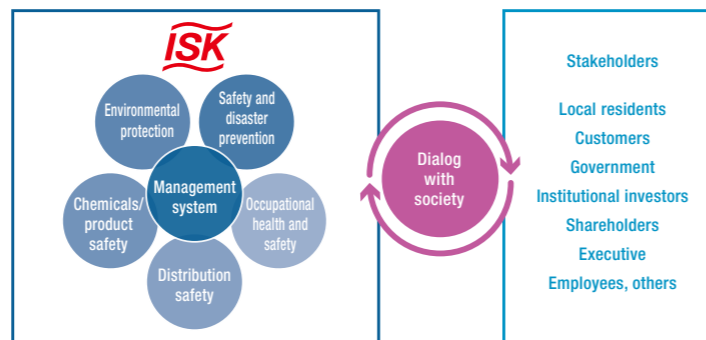
To ensure that the lessons of past problems are not forgotten, we conduct compliance education aimed at ISK Group members. In recent years, we have conducted job grade-specific training, online learning, and group training for newly appointed managers. Also, with regard to health and safety, process safety and disaster prevention, environmental protection, and other topics, we regularly conduct training which is run by outside and in-house instructors.

Tackling the Challenges of a New Stage

In fiscal 2019, after a difficult road of addressing scandals and rebuilding trust from society, ISK issued dividends for the first time in fourteen years. After a "defensive" period during which we worked hard to return our company to a state of normalcy, we are now on the "offensive," pursuing future-focused business development. All ISK Group members are actively engaged in business, having their eyes set on Vision 2030, and with the absolute imperativeness of our corporate philosophy to "abide by laws and regulations; maintain transparency in business activities" etched in our minds.

ISK's Responsible Care

ISK undertakes Responsible Care (RC) activities aimed at environmental, health, and safety assurance. In particular, our activities encompass chemical product and distribution safety specific to the chemical industry, as well as environmental protection, process safety and disaster prevention, and occupational health and safety, along with dialog with society, common to many different industries.



ISK Makes Presentation on Safe Handling of Chemicals at 8th Responsible Care Yokkaichi Forum

The Japan Chemical Industry Association (JCIA), of which ISK is a member, carries out responsible care activities including the holding of discussion forums with local residents in areas where there are chemical plants. After the COVID-19 pandemic forced the temporary stoppage of these gatherings, on October 28, 2022 the JCIA was able to hold the 8th Responsible Care Yokkaichi Forum, the first such meeting in four years.

The approximately 100 attendees included local residents and participant from local government and companies at the venue, with other such representatives taking part online. ISK was one of the companies making a presentation, on the topic of efforts to ensure the safe handling of chemical substances. With Yoshihito Takeda, a professor at Hokkaido University as the moderator, a question-and-answer session and discussion were held between corporate representatives and local residents.



ISK makes a presentation at the forum

What is Responsible Care?

Companies that handle chemicals voluntarily undertake Responsible Care activities to provide environmental, health, and safety assurance covering everything from chemical substance development to production, distribution, usage, final consumption, disposal, and recycling.

The results of these activities are shared and discussed with stakeholders. Responsible Care originated in Canada in 1985 and has subsequently spread to companies around the world.



Responsible Care Achievements in Fiscal 2022 (Summary)

Category	Fiscal 2022		
	Objectives	Achievements	Evaluation
Environmental protection	Planned emission reduction of PRTR-listed materials	The volume of emissions into the air and transferred off-site was reduced, but the volume of discharge into public water areas increased.	-
	Reduce energy intensity and electricity demand leveling assessment intensity by 1% year-on-year	Energy intensity increased by 4.7% year-on-years, thus failing to achieve 1% reduction target.	-
	Reduce, reuse, and recycle waste	Continued reducing industrial waste by reusing and recycling materials with recoverable value.	✓
Process safety and disaster prevention	Eliminate plant accidents (fire, explosion, leakage)	There were no plant accidents.	✓
Occupational health and safety	Achieve "zero lost time accidents" at each ISK site	There was one lost-time accident at the Yokkaichi Plant.	-
Distribution safety	Implement emergency response card (so-called Yellow Card), GHS label, and SDS management	Yellow Cards, GHS labelling, and SDSs were appropriately implemented.	✓
Chemicals/product safety	Properly manage chemical substances and provide customers with SDSs	We appropriately notified the authorities on the use of chemical substances and provided SDSs.	✓
Dialog with community	Provide information to community Interact more with local communities	More two-way communication was carried out with local citizens.	✓

Dealing with Climate Change

ISK Group has pursued and strengthened sustainable management initiatives from the perspective of SDGs for medium-term business plan, Vision 2030 Stage I. In view of emergency and importance, ISK Group is making efforts toward the “Dealing with climate change, reducing environmental impacts” as an identified priority issues (Materiality). ISK Group strives to analyze, examine, and disclose the information related to the climate change issues under the TCFD recommendations, and in carrying out business activities, ISK Group will contribute to address environmental and social issues to realize a sustainable society and improve its corporate value.

Sustainability Dealing with climate change

<https://www.iskweb.co.jp/eng/environment/climate.html>



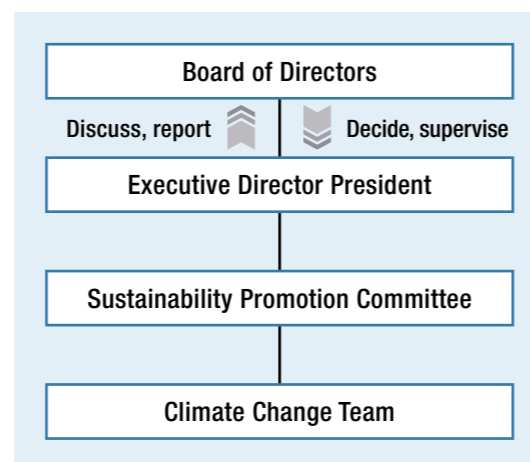
Governance

Concrete efforts in response to climate change are carried out by our Climate Change Team. This team operates under the Sustainability Promotion Committee, which reports directly to the President.

The team comprises people from factory management, manufacturing divisions, administrative department, and ISK affiliates.

The efforts and measures the team comes up with are deliberated on at Sustainability Promotion Committee meetings held at least twice a year, and those approved are consulted on and passed by the Board of Directors.

The progress of activities by the Sustainability Promotion Committee, including the Climate Change Team, is reported every three months to the Board of Directors, which supervises these activities.



Strategy

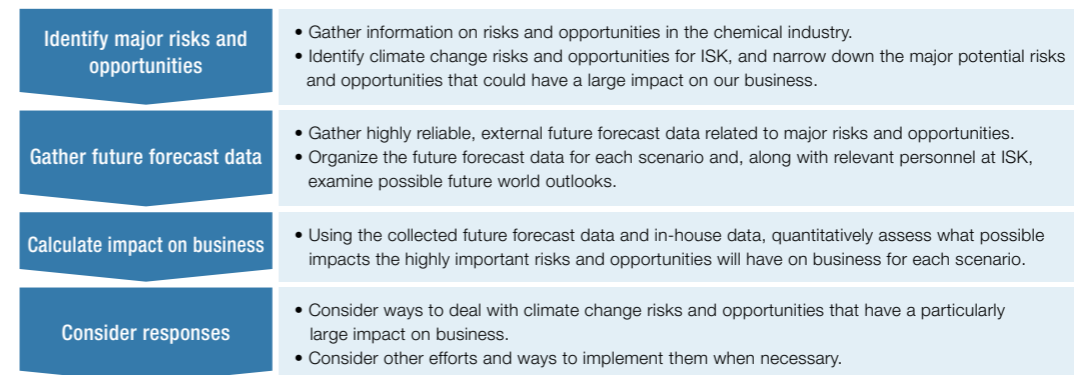
Chosen Climate Change Scenarios

Referencing climate change scenarios published by the IEA (International Energy Agency) and IPCC (Intergovernmental Panel on Climate Change), we selected scenarios of a rise of 1.5–2°C and 4.0°C. Recognizing that climate change’s impact on business becomes more evident in the medium- and long-term, we analyzed the impact of climate change until 2050, as the time horizon. Analysis of the scenario for fiscal 2023, we extends to the organic chemicals business. All businesses of the ISK Group (inorganic chemicals/organic chemicals) were analyzed under the scenarios.

*Referenced climate change scenarios

- 1.5–2°C scenario: Scenario with sustainable development and climate policy to keep temperature rise under 2°C compared to pre-industrial levels but to also aim to keep it to 1.5°C or less (IEA NZE 2050, IEA SDS, SSP1-2.6, RCP2.6)
- 4°C scenario: Maximum emissions scenario with no climate policy and development dependent on fossil fuels (IEA STEPS, SSP2-4.5, RCP8.5)

Scenario Analysis Process



Scenario Analysis Results

The ISK Group used external information to analyze the main climate change risks and opportunities in our business, and gathered future forecast data related to each risk and opportunity.

Based on this, we considered the risks and opportunities that arise from the transition to the carbon neutral society under each of the 1.5–2°C and 4°C scenario. We then analyzed the major risks and opportunities that could impact our business up until 2050.

As a result, for the 1.5–2°C scenario, we identified risks such as greatly increased operating costs due to the imposition of a carbon tax on CO₂ emissions.

Therefore, recognizing the importance of reducing CO₂ emissions across the entire ISK Group, we will proceed with various planned measures towards achieving carbon neutrality by 2050.

Risk Management

One of the eight priority issues (materiality) that the ISK Group has identified is “dealing with climate change and reducing environmental impacts.”

In recognition of the urgency of climate change, the ISK Group has established the Climate Change Team under the Sustainability Promotion Committee. This team identified climate change risks, the results of which are assessed and controlled by the Sustainability Promotion Committee. When necessary, matters are reported to the Corporate Risk Management Committee.

On major opportunities: Financial impact more than one billion yen: Financial impact less than one billion yen:
 On major risks: Financial impact more than minus one billion yen: Financial impact less than minus one billion yen:

Business Risks and Opportunities Identified through Risk Level Assessment and Scenario Analysis

Time horizon: Short term: 2025, medium term: 2030, long term: 2050

Major Risks and Opportunities		Covered business	Explanation of risks and opportunities			Responses aimed at reducing risks and seizing opportunities	
			Explanation	Time horizon	Financial impact (2050)		
Transition risks	Policies/regulations	Introduction of carbon tax, stricter CO ₂ emission regulations	Inorganic chemicals Organic chemicals	Increased operating costs due to the imposition of a carbon tax on CO ₂ emissions (For 1.5°C: Cost increase of approx. 17.2 billion yen in 2050*)	Medium–long		<ul style="list-style-type: none"> Shift boiler fuel away from coal Rebuild manufacturing systems Implement carbon capture and use renewable energy
	Technologies	Shift to meeting consumer needs for low-carbon products	Inorganic chemicals Organic chemicals	Developing low-environmental impact products and strengthening manufacturing systems (Calculation of evaluation of financial impact includes rise in semiconductor demand)	Medium		<ul style="list-style-type: none"> Expand sales of electronic components (semiconductors etc.), materials (IPM products), and others that reduce environmental impact Create new technologies and products (Organic: Develop IPM products with a view to smart agriculture using AI and IoT, etc.) Utilize subsidies and subsidy systems for capital investment and product development
	Markets	Rising raw material prices (titanium ore, coke, others)	Inorganic chemicals	Increased procurement costs, rising material prices due to limited availability	Medium		<ul style="list-style-type: none"> Increase yields and reduce waste Reduce CO₂ in procurement through cooperation with suppliers and the industry
		Energy cost fluctuations	Inorganic chemicals Organic chemicals	Sharp price fluctuations in coal, fuel oil, gas, and electricity	Short–medium		<ul style="list-style-type: none"> Diversify the energy sources Pursue thorough energy savings
Reputation	Greater awareness of environmental consciousness among customers	Inorganic chemicals Organic chemicals	Fewer product orders and lower investor ratings due to delay in decarbonization	Medium	–	<ul style="list-style-type: none"> Proactively strive to reduce environmental impact Pursue thorough information disclosure 	
Physical risks	Acute	Rise in severity of extreme weather events such as typhoons and floods	Inorganic chemicals Organic chemicals	Property damage and lost profits due to disasters	Short		<ul style="list-style-type: none"> Expand and improve BCPs, conduct drills Increase the number of suppliers Consider a backup manufacturing system
			Inorganic chemicals Organic chemicals	Rise in insurance costs due to higher risks of disaster striking bases	Short		<ul style="list-style-type: none"> Revise terms of insurance contracts
			Organic chemicals	Decrease in sales of agricultural materials due to farmers' damage from floods	Short		<ul style="list-style-type: none"> Develop materials that solve new issues arising from extreme weather (rain-resistant materials, biostimulants that counter heat stress, and others)
	Chronic	Rise in average temperature, extreme change of weather patterns	Organic chemicals	Increasing sales opportunities provided by selling of materials that respond to ecosystem changes	Medium–long		<ul style="list-style-type: none"> Select certain countries for priority development and marketing based on predictions of changes in uncertain ecosystems (pests, weeds, etc.)

*Financial impact evaluation uses carbon pricing in each country under the 1.5°C scenario (IEA NZE 2050) for the calculation of cost impact (Scope 1, 2). Note that the organic business includes subcontractors (Scope 3).

Indexes and Targets

For Scope 1 and 2 GHG (greenhouse gas) emissions, in addition to those disclosed last year at ISK Group companies in Japan, we also calculated those at overseas group companies so as to understand emissions for the entire ISK Group. Scope 3 (supply chain) emissions were also calculated in order to grasp the overall state of GHG emissions from ISK Group business activities. To reduce Scope 2 GHG emissions, the Yokkaichi Plant has begun including renewable energy from biomass in the electricity that it purchases.

GHG (Greenhouse Gas) Emissions of ISK Group (1,000 t-CO₂)

GHG emissions	FY2019 (base year)	FY2020	FY2021	FY2022
Scope1	471	408	488	476
Scope2	20	19	23	22
Total	490	427	511	498

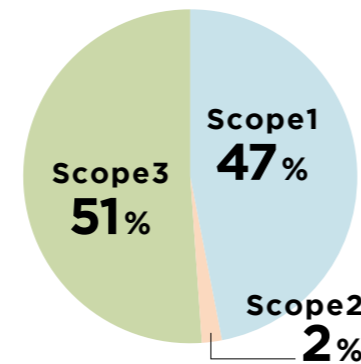
GHG emissions calculated based on GHG Protocol

GHG Emissions of Scope3 (1,000 t-CO₂)

Scope3	Category	Calculated Scope	FY2022
Category 1	Purchased goods and services	Non-consolidated	444.23
Category 2	Capital goods	Consolidated	14.55
Category 3	Fuel and energy-related activities not included in Scope 1 or Scope 2	Consolidated	52.71
Category 4	Upstream transportation and distribution	Non-consolidated	4.33
Category 5	Waste generated in operations	Consolidated (in Japan)	3.00
Category 6	Business travel	Consolidated	0.23
Category 7	Employee commuting	Non-consolidated	0.47
Total of GHG Emissions of Scope3			519.52

Scope 1, 2, 3 GHG Emissions Share

Scope 1, 2: ISK Group
Scope 3: Set for each category



Scope1,2,3 Total 1,017.43 (1,000 t-CO₂)

ISK Group Aiming for Carbon Neutrality by 2050

With climate change becoming a major worldwide issue, the ISK Group has identified dealing with climate change and reducing environmental impacts as priority issues (materiality) and aims to become carbon neutral by 2050.

<Reduction Targets>

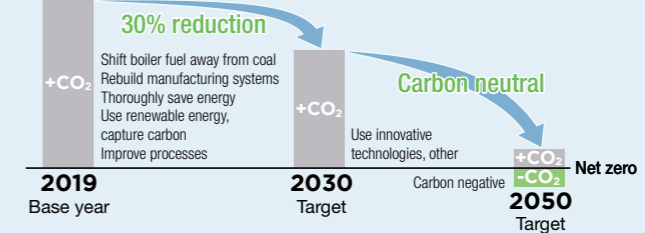
2030: Target CO₂ emissions reduction by 30% (against FY2019)

2050: Challenge carbon neutrality (net zero emissions)

The ISK Group has set the reduction targets for CO₂ emissions (Scope 1 and Scope 2). We will continue to strive for reduced emissions and carbon neutrality in order to promote Climate Change Mitigation and Adaptation.

• CO₂ Emission Reduction Road Map

Approx. 500,000 tons



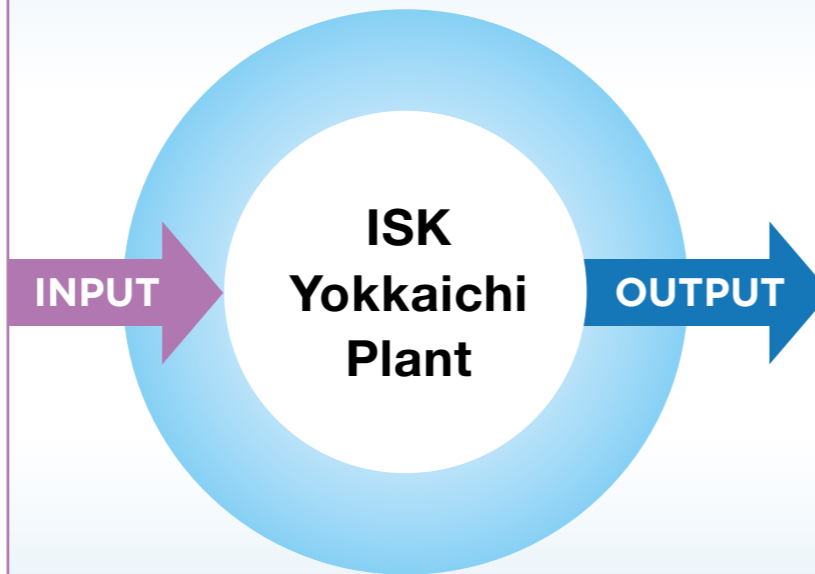
Challenge by using developing proprietary technologies

In order for ISK to continue contributing to better living environments through chemical technologies, we strive to develop manufacturing and product technologies that contribute to energy savings and carbon neutrality. In manufacturing technologies, when aging manufacturing equipment needs to be upgraded or new plants have to be built, we make concrete proposals that realize the installation of equipment that uses minimal energy. For example, for processes that require large amounts of energy, such as pulverization and calcination, we gather as much information as possible about the latest equipment and conduct testing before installing the actual equipment. We are also studying technologies to make existing equipment more heat efficient and have been obtaining promising results on the effects. We also offer technical support in the procurement and selection of environmentally friendly raw materials. On the product technologies side, we are in the process of developing mass-production technologies for highly functional heat storage material based on HASClay™, developed by the National Institute of Advanced Industrial Science and Technology. The aim is to put this heat storage material to effective use in systems that capture waste heat from power generation facilities and plants and use it for drying, air conditioning, and agriculture climate control.

Environmental Protection

Yokkaichi Plant's Material Balance in Fiscal 2022

Energy and raw materials consumed	
• Energy* ¹	140,000 kiloliters (crude oil equivalent)
• Industrial water	16 million m ³
• Seawater	10 million m ³
• Raw materials Titanium ore	150,000 tons Others



Production	
• Products* ²	130,000 tons (titanium dioxide equivalent)
Atmospheric emissions	
• CO ₂ emissions	CO ₂ emissions from energy used in production activities 400,000 tons-CO ₂
• Nitrogen oxides (NOx)	184 tons
• Sulfur oxides (SOx)	5,200 Nm ³
• PRTR-listed substances	11 tons
Emissions into water areas	
• Wastewater	26 million m ³
• COD	39 tons
• PRTR-listed substances	84 tons
• Nitrogen	181 tons
• Phosphorous	1.1 tons
Industrial waste	
• Disposal volume	95,000 tons
• PRTR-listed substances	1,500 tons

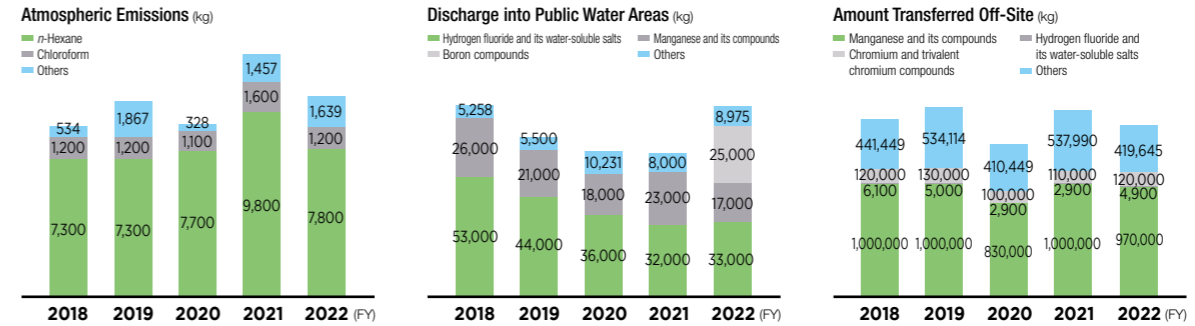
*1 Heavy oil, LNG, steam, and electricity are used as energy sources. The combined usage volume is expressed as a crude oil equivalent figure under Japan's Energy Conservation Act.

*2 Besides titanium dioxide, we produce functional materials, chemical, organic, and other products. These have all been converted to titanium dioxide production figures using energy consumption intensity under Japan's Energy Conservation Act.

Release and Transfer of PRTR-Listed Chemical Substances to Environment

The PRTR (Pollutant Release and Transfer Register) is a system under which the government announces, from where, to where and how much chemical substances are released and transferred that may be harmful to human health and ecosystems. It also aims to encourage companies to exercise self-restraint through disclosure. The Yokkaichi Plant and the Central Research Laboratory handle 39 substances and one substance covered by the PRTR, respectively. These have been reported to the government.

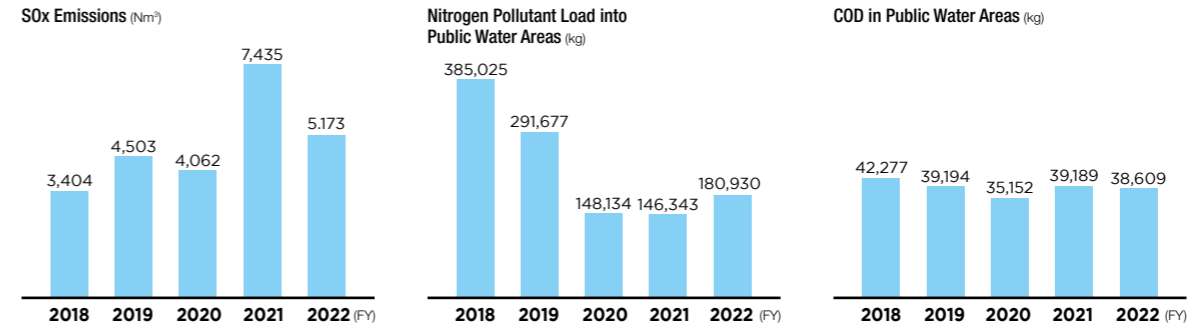
The graphs show the change in the amounts released and transferred at the Yokkaichi Plant in the past five years.



Reducing Environmental Impact on Atmosphere and Water Areas

The graphs show the amounts of substances, covered by total mass emission control, discharged into the atmosphere and public waters at the Yokkaichi Plant.

The plant has voluntary control standards that are stricter than the total mass emission control values set under Japan's Air Pollution Control Act and Water Pollution Control Act.

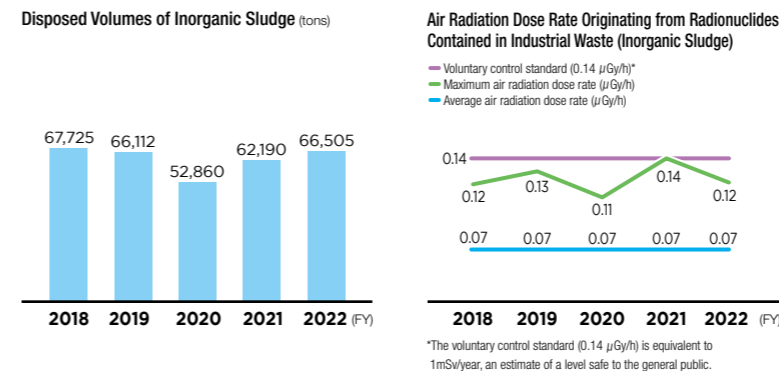


Reduction of By-product Inorganic Sludge

Unnecessary by-product solids (inorganic sludge), generated by each production activity such as titanium dioxide, are properly transported to an industrial waste disposal site. After periodic maintenance of the Yokkaichi Plant in October 2016, we switched to a new method to reduce the generation of the inorganic sludge and it has been decreased.

Controlling Air Radiation Dose Rate of Inorganic Sludge

Ore, used as a raw material for titanium dioxide, contains trace amounts of radioactive impurities such as uranium and thorium, and these are treated and disposed of as waste. Prior to being transferred as industrial waste, radiation levels are measured in accordance with a voluntary control standard to ensure that they are safe.



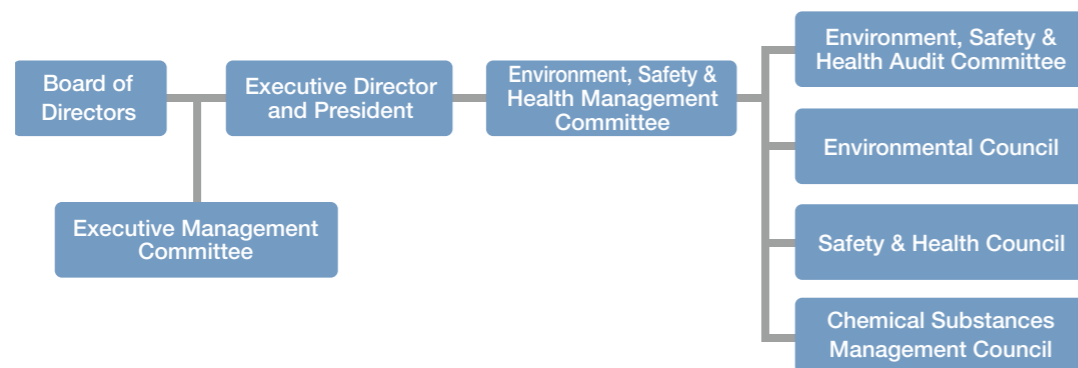
Occupational Safety and Health

Basic Policy

ISK's safety and health policy is to ensure the safety, security, and health of employees and local residents by complying with safety and health-related laws, preventing accidents and disasters, building a pleasant work environment, and constantly raising the level of safety and health. Additionally, we have established "occupational safety and health, operation safety, and disaster prevention" as one of our Group's key issues (materiality) and are promoting initiatives aimed at achieving a lost injury frequency rate and severity rate of zero.

Safety and Health Management Structures

In line with our "Basic Policies on Environmental Protection and Safety & Health Promotion," we have established the Environment, Safety & Health Management Committee under the purview of the Office of President to deliberate on the highest level policy proposals relating to safety and health, the environment and chemical substance management. Below this is the Safety and Health Council which, in addition to the organizations that promote environmental conservation and undertake chemical substance management, promotes occupational safety and health promotion awareness.



Safety and Health Management System

At ISK, we have established "president-directed environmental, safety and health goals" which reflect the characteristics of operation at each business location, and, in order to achieve these goals, key initiatives are set at the beginning of each fiscal year. Here, we will look at the initiatives of our sole plant, the Yokkaichi Plant.

Fiscal 2023 President-directed Environmental, Safety and Health Goals for the Yokkaichi Plant (safety and health-related only)

1. Eliminate plant accidents (fire, explosion, leakage, etc.)
2. Achieve zero workplace accidents (zero lost-time accidents)
3. Improve health awareness and prevent health disorders
4. Promote safety and health and health measures for older workers
5. Achieve zero lost-time accidents involving commuting employees' vehicles

To achieve these goals, the Yokkaichi Plant has formulated, and is implementing, an action plan. Some of the initiatives from this plan are presented below.

(1) Implementation of various risk assessments relating to new and existing processes

Because the Yokkaichi Plant handles amount of high pressure gas, it has been designated as a special disaster prevention area for petroleum complexes in accordance with the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities.

As part of risk management for such important locations, we conduct risk assessments with What-If Scenario Analysis to identify potential sources of danger.

(2) Normalization of pointing and calling

Pointing and calling involves stopping, observing a target, pointing, calling (vocalizing), and listening in order to prevent operational errors. However, pointing and calling for every area to be checked is hard to do during operation. Therefore, a checkpoint-specific level system has been adopted.

- Level 1 Visual check
- Level 2 Visual and pointing check
- Level 3 Visual, pointing and calling check
- Level 4 Stopping (adopting proper posture) and performing visual, pointing, and calling check

Level 4 pointing and calling is used at the plant entrance in particular in order to raise awareness.



(3) Promotion of autonomous management of chemical substances

In response to the stipulations regarding "autonomous management of chemical substances" in the amended Order for Enforcement of the Industrial Safety and Health Act, we are working to prevent health problems through both legally mandated and voluntarily adopted management methods, which include appointing chemical substance managers and protective equipment managers, conducting risk assessments, and implementing measures to reduce exposure, in a systematic way.

(4) Promotion of falling accident prevention

With employees getting older, falling accidents are becoming more common and can result in lost worktime. As a countermeasure, we are removing the steps around workers as well as painting them in easily noticeable colors. We have also introduced safety shoes with increased toe spring (the distance that the tip of the toe rises from the floor when the shoe is placed on a level floor) which make it harder to trip.

The progress of these activities is assessed during monthly meetings of the Safety and Health Committee, at which countermeasures and other actions are reviewed and revisions made as needed. In addition, departmental and plant-wide reviews are conducted at the end of each fiscal year; activity summaries for each are created and provided to each other, including ISK Group companies, at the Safety & Health Council; information is shared and issues are sorted out; and then those issues are escalated to the Environment, Safety & Health Management Committee for deliberation.

After reflecting on the initiatives of the current fiscal year, the Environment, Safety & Health Management Committee sets goals for the next fiscal year, and new initiatives are planned at each business location; thus a PDCA cycle is implemented to foster an upward spiral in occupational health and safety and health promotion awareness.

Respect for Human Rights

ISK Group Policy on Human Rights

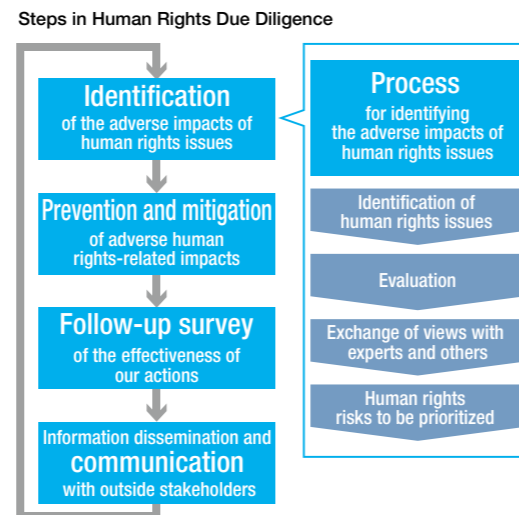
We formulated the ISK Group Policy on Human Rights to further our efforts in respecting individuals. Based on international human rights standards such as the International Bill of Human Rights, the policy proclaims ISK’s dedication to preventing discrimination and harassment and respecting individual privacy. It also details how we implement education and training to effectively achieve these goals and conduct due diligence, as well as disclose pertinent information. The ISK Group Policy on Human Rights will guide our efforts to further respect human rights at all our worldwide bases. The policy, which was formulated with advice from outside experts, was approved by the Board of Directors on April 8, 2022.

Sustainability Respect for Human Rights

https://www.iskweb.co.jp/eng/environment/human_rights.html

Implementation of Human Rights Due Diligence

The ISK Group is working to build mechanisms to identify and prevent or mitigate human rights issues negatively impacting society. In fiscal 2022, with the cooperation of outside experts, we examined our principal businesses and associated value chains, identified and evaluated human rights issues that could have a negative impact on human rights through our business activities, and then designated those human rights risks to be prioritized.



Designation of Human Rights Risks to Be Prioritized

Placing the highest priority on human life, the ISK Group has identified initiatives to address as priority human rights risks. These include responding to the fact that our major manufacturing sites are located in areas expected to be damaged by a Nankai Trough earthquake, enhancing our response to geopolitical risks, responding to workplace-specific risks like long working hours and harassment, and responding to increasingly sophisticated information security risks.

We also believe that it is necessary to understand the current state of human rights at suppliers and business partners and communicate with them in order to further increase transparency.

Human Rights Risks to Be Prioritized	Affected Group	Major Human Rights Risks
Health and safety	Workers at ISK’s group companies	<ul style="list-style-type: none"> Large-scale earthquakes, pandemics, etc. Protest activities, terrorism and kidnappings in regions with geopolitical risks and at our overseas sites
Long working hours	Workers at ISK’s group companies	<ul style="list-style-type: none"> Normalization of long working hours due to personnel shortages, diversification of work styles, etc.
Harassment / abuse / corporal punishment	Workers at ISK’s group companies	<ul style="list-style-type: none"> Occurrence of harassment accompanying the diversification of work and human relationships
Leakage of personal information or invasion of privacy	Workers at ISK’s group companies Customers	<ul style="list-style-type: none"> Diversification of risk factors, such as unauthorized access and cyberattacks, accompanying the development of information technology
Human rights issues at suppliers and business partners	Workers at suppliers and business partners	<ul style="list-style-type: none"> Insufficient understanding of the actual state of human rights

Human Rights Education and Training for Employees

In fiscal 2023 we conducted video training aimed at all Group employees in order to ensure their foundation of knowledge regarding human rights in business, as well as to deepen their understanding of the human rights-related initiatives undertaken by the ISK Group.

The training was divided into three components: “What are human rights?” “Worldwide Trends Regarding Business and Human Rights,” “Initiatives of the ISK Group.” This training serves to raise awareness among employees about respect for human rights, and this, in turn, leads to increased corporate value.

Disclosure of Human Rights Risks to Be Prioritized

Message from an Outside Expert

I welcome the fact that the ISK Group has begun to undertake human rights due diligence.

The potential negative impact of business activities on human rights (human rights risks) is identified with a focus on stakeholders, who are rights holders of human rights, and is evaluated with the severity of the impact on human rights used as a priority indicator. Listing the health and safety of the ISK Group employees as a human rights risk to be prioritized is in line with the latest trends in the international community. The International Labour Organization adopted its core labor standards in 1998, and added “promoting safe and healthy working environments” to them in 2022. Thus, the importance of occupational safety and health was reaffirmed as fundamental human rights.

Regarding long working hours and harassment, the protection of the lives and physical and mental health of workers is required by domestic laws and regulations. However, the United Nations Guiding Principles on Business and Human Rights require initiatives which go beyond compliance with domestic laws and regulations. For example, companies are required to confirm whether work style is being reformed or harassment countermeasures are taken among suppliers or business partners. In addition, I believe that it is necessary to deal with personal information and privacy in accordance with international standards in order to prevent serious situations that threaten the lives, bodies, and livelihoods of individuals, while taking into account differences in the privacy protection laws of the countries where your company operates.

I have understood that the ISK Group will work on future initiatives to identify concrete human rights issues at suppliers and business partners and to promote dialogue with stakeholders in the process of human rights due diligence. The ISK Group promotes initiatives related to environmental impact, including waste disposal, and advocates process safety, disaster prevention, and environmental protection activities in the Multi-Stakeholder Policy that ISK formulated in 2023. A measure to be taken would be to reconsider environmental issues faced by suppliers and business partners from the perspective of human rights through dialogue with local communities.

Initiatives on human rights that lead the chemical industry will help increase productivity and secure and maintain excellent human resources through the improved job satisfaction of employees, gain support from business partners and customers, and strengthen relationships of trust with them. I believe that such initiatives will bear fruit in the form of an increase in the evaluation of corporate value by domestic and foreign shareholders and investors, and will surely contribute to the further development of the ISK Group.

I look forward to the progress of human rights due diligence in the future.



Attorney, New York State-licensed attorney
Member, Steering Committee,
Business and Human Rights Lawyers Network Japan

Emi Omura

Note: The above comments represent the views of Ms. Omura as an individual attorney. They do not reflect the views of any law offices or organizations to which she belongs, or of any organizations for which she serves as a director or officer.

Sustainable Procurement

Within the ISK (Ishihara Sangyo Kaisha, Ltd.) Group, we pursue socially responsible procurement activities through our business operations, in collaboration with suppliers and contractors, as specified in our Code of Conduct and Policy on Human Rights. We hereby adopt the Policy on Procurement in order to promote such socially responsible procurement activities.

ISK Group Policy on Procurement

1. Legal Compliance

ISK Group complies with laws and regulations of each country and region and conducts procurement activities sensibly in accordance with social ethics.

2. Fair and Reasonable Transactions

ISK Group provides opportunities openly to both domestic and overseas suppliers and contractors and is committed to fair transactions. ISK Group conducts reasonable procurement activities by considering multiple elements in a comprehensive manner, including quality, price competitiveness, supply stability and capacity for technological development.

3. Establishing Partnerships

ISK Group strives to promote mutual understanding with suppliers and contractors and to strengthen partnerships by building relationships based on trust.

ISK Group will take reasonable and appropriate steps to determine to the best of its knowledge that its suppliers and contractors practice the values espoused by ISK Group as set forth in the Appendix.

4. Promoting Social Responsibility

ISK Group respects human right as a member of the international community and conducts procurement activities in consideration of various aspects of sustainability such as environment and safety.

In addition, ISK Group will actively participate in international initiatives such as Responsible Care activities, management of conflict minerals (3TG, cobalt) and procurement of sustainable palm oil.

The ISK Group will publicize initiatives concerning procurement activities pursuant to this Policy via the ISK Group website and/or Integrated Reports.

Sustainability Sustainable Procurement

<https://www.iskweb.co.jp/eng/environment/procurement.html>

Message from the Director of General Affairs & Human Resources Headquarters

Sympathize company's vision and Achieve personal career vision

Within the ISK Group, we have codified, in line with our Vision 2030 long-term vision, the "Purpose" that we want our Group to serve in contributing to society. While maintaining core competitive strength through our chemical technology, we will rely on our corporate philosophy, the willingness to embrace challenges which is part of our founding DNA, our "Value Creation Core" including our ability to develop proprietary technologies, our ability to collaborate globally, our ability to accommodate quality, and environmental requirements, and our management capability etc., express our Group's commitment to delivering better living environments to the people of the world. It is our purpose, which resonates with all Group employees and provides a more tangible sense of connection with society, that will serve as the compass indicating the direction of our future efforts.

I believe that by fostering individual contemplation and action about what one can do for society and how to go about realizing the ISK Group's purpose, while at the same time aligning the ISK Group's purpose with each individual's career vision, a sense of motivation and rewarding challenge is created which will, ultimately, lead every employee to say, "I'm happy I joined the ISK Group."

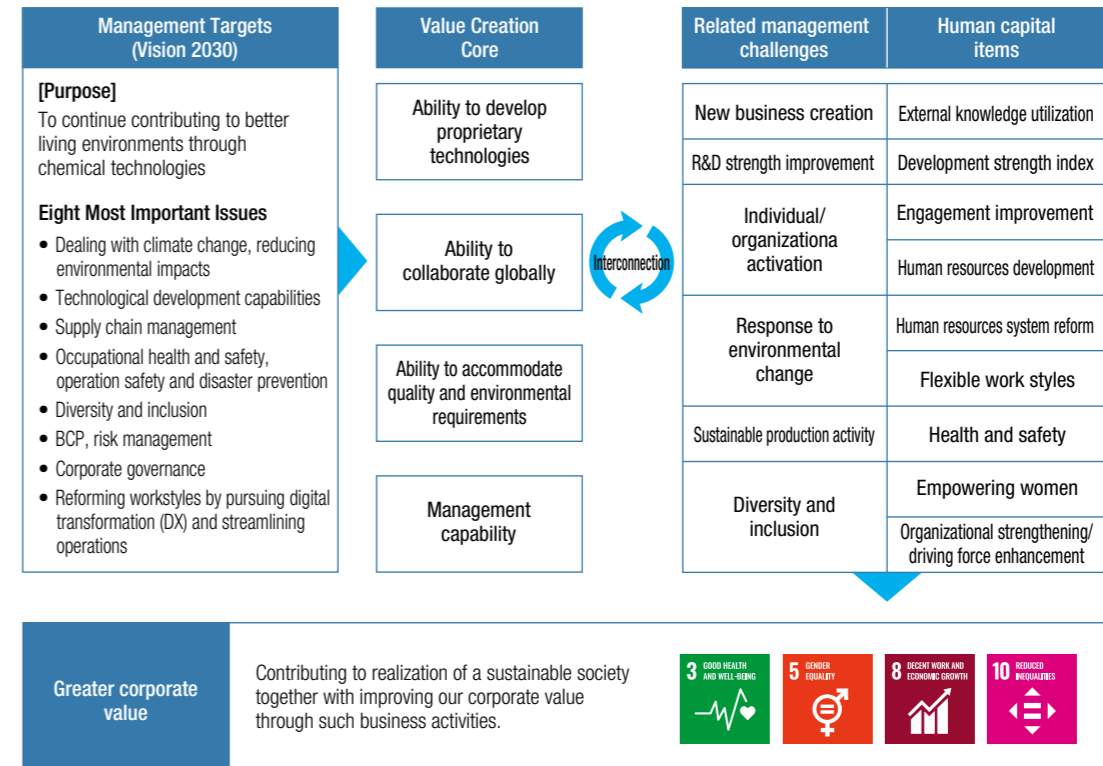
– Cultivating Diverse Human Resources to Tackle the Challenge of Value Creation –



Director of General Affairs & Human Resources Headquarters
Yoshio Nishiyama

Within the ISK Group, we consider people to be our greatest asset and regard human resources as company capital. We believe that "human resources are the source of our competitive strength," and, thus, invest in human resources is indispensable to increasing our medium- to long-term corporate value.

In order to link human capital with value creation, we foster the growth of the autonomous "individual," which leads, also, to the growth of the organization and, by extension, the growth of the company as a whole. This allows each employee to have a sense of his or her contribution to increasing corporate value, thereby furthering the growth of the "individual" and creating a virtuous spiral. And, in order to maintain this crucial upward spiral, we believe it is essential to link human resource strategies and personnel measures based on management



and business strategies. We will continue to develop ourselves as an organization in which all employees aspire to address the challenges facing society, which attracts diverse and specialized human resources, and that exists as a group in which all employees are empowered to demonstrate their individual talents and skills. Towards that end, we will promote training to help employees acquire those abilities and qualities that all employees should possess, as well as those abilities required for the performance of specific roles, and we will also bolster systems which encourage self-improvement and tackling challenges in order to foster independent skills development and self-growth.

– Human Capital Investment Initiatives –

We will implement five human resources strategies to realize value creation and personal and organizational growth.

1. Optimal placement of human resources

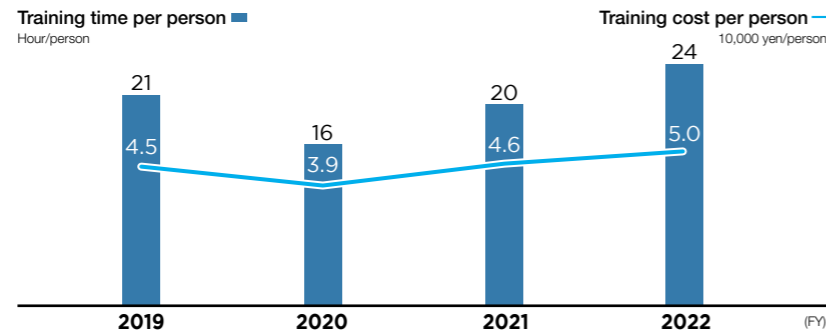
We will secure a necessary and sufficient number of human resources to implement our business strategies and place them in accordance with our business strategic priorities. We are focusing on mid-career hiring as part of our efforts to acquire highly specialized human resources, such as management personnel and DX personnel, and to strengthen diversity in terms of gender and nationality. Mid-career hires utilize the skills and experience they have cultivated externally, while leveraging our corporate resources, to contribute to their own success and that of the company. In fiscal 2022, 64.5% of all hires were mid-career hires.

2. Skill acquisition and strengthening

We prepare training programs to help employees acquire the skills and expertise necessary to execute business strategies, and we provide them with a variety of opportunities for experience, both domestically and internationally, inside and outside the company. We have courses to improve their global business skills, such as online courses they can take at home. They can also go to a language school to learn foreign languages as well as take part in overseas training and other options.

In particular, we engage in active human resources investment to facilitate skill-building among those personnel with the will and desire to grow, and to facilitate acquisition among promoted employees of the skills necessary to produce better results. Specifically, we carried out top leader training (training of next generation of executives), management leader training (middle management layer), newly appointed manager training, and ISK management school (selective), for each job level, and also Training independently selected by each department. In fiscal 2022, we invested an average of 50,000 yen for all employees.

• Time and Money Invested in Employee Training Programs (non-consolidated)



(Included training to improve employee capabilities, annual training by job level, career training, next-generation executive training, etc.)

Experiencing Cross-cultural Exchange via Overseas Training

I made use of the in-house training program to receive language training in India for six months.

This training was a valuable opportunity to not only learn the language but also to learn about the lives and dispositions of the local people. In particular, I feel that having an understanding of their proactive approach and attitude towards things will be extremely important for smooth communications with them in the future. Currently, I am in charge of product development, marketing and sales in the South Asia region and apply what I learned in language training to my daily work.



Product Development & Marketing Division,
Biosciences Business Headquarters
Asia Pacific Group

Jun Sawano

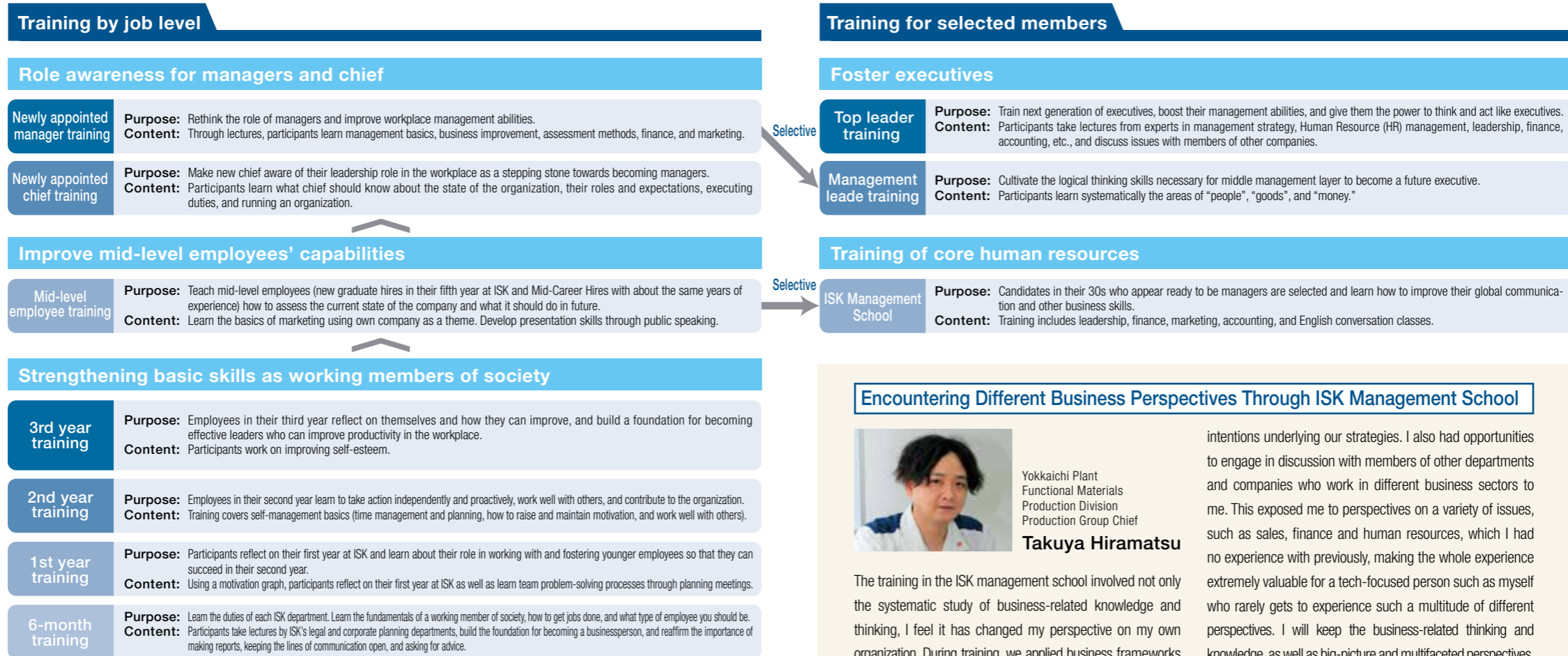
Development of an Education and Training System and Launch of Relevant Initiatives at the Yokkaichi Plant

In 2022, we established an education and training system and launched relevant initiatives with the aim of cultivating outstanding future personnel and fostering skill-building for everyone that will ensure the Yokkaichi Plant is a sustainable business location. In addition to providing training by job level, hands-on safety training and other training, we conduct in-house training in “foundational knowledge” and have introduced e-learning in order to raise the skill level of young personnel, in particular, to foster operational improvement based on fundamental rules and principles that will ensure we are a sustainable plant.



Employee Training Programs and Career Development Support

Once employees enter ISK, the company develops their capabilities by holding courses company-wide at certain points in their careers in order to make them aware of their roles in society and the company and to boost various skills.



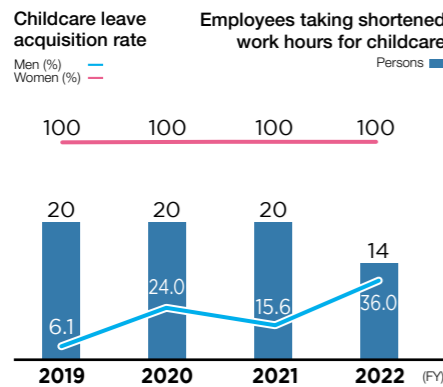
3. Empowering women

We are working from a medium- to long-term perspective to create an environment where women's participation is common and expected. Specifically, we are actively recruiting female recent graduates and mid-career hires, as well as promoting female managers, and, in terms of balancing work with child care, regardless of gender, we are cultivating workplaces where there is workplace-wide understanding of, and support for, the life events, thereby fostering the development of a corporate culture which empowers women to pursue their careers without interruption. In fiscal 2022, childcare leave acquisition rate was 36% for male employees and 100% for female employees.

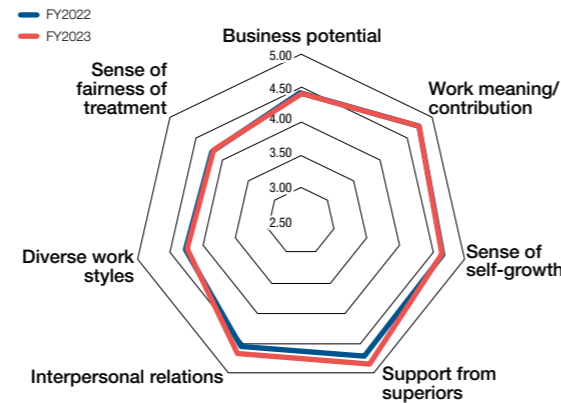
4. Improving engagement

In order to enable individuals to demonstrate their full potential and contribute to increased productivity and corporate value amidst an increasingly diverse range of attitudes and needs employees have with regard to lifestyle and career development, it is important that we cultivate employee-friendly work environments which improve the motivation of every employee. We hope that, as we accommodate a diverse workforce with flexible work style options, such as by introducing work-from-home and flex-time systems to facilitate work-life balance, this will contribute to a greater awareness of individual work efficiency.

• Increasing Support for Work-Life Balance (Non-consolidated)



• Engagement Survey Results



Tackling the Challenge of the Management Promotion Exam



Central Research Institute
Research Management Division
Planning Group Manager
Sekimi Morino

At the Central Research Institute, my responsibilities include performing technical surveys prior to patent application and coordinating with external organization regarding contract work. My supervisor always advise me to pursue my work "as if you were in a higher position;"

so, last year, I took the management promotion exam. After returning from childcare leave in 2019, I shifted to morning work using the flex-time system to be able to go and pick up my child thank to coordinating with my husband. Within the department, when it is time to go home, my superior is considerate of that fact and encourages me with a call of "It's time!" I am also currently utilizing a variety of systems offered within the company, such as work-from-home two days a week. My job involves working outside my department as well, and I intend to capitalize upon this to gain a more diverse perspective as I accumulate experience so that I can continue working in an ever-broader capacity.

5. Cultivating DX personnel

The aim of DX is not to introduce IT (information technology) but, rather, to facilitate the co-evolution of D (data and digital technology utilization) and X (operational and business model transformation). Although a DX mindset has not yet been cultivated company-wide, we are conducting training for all employees intended to improve their overall skills, and we are working to improve IT literacy as well as strengthen the development of DX personnel.

Digital Transformation (DX) Initiatives

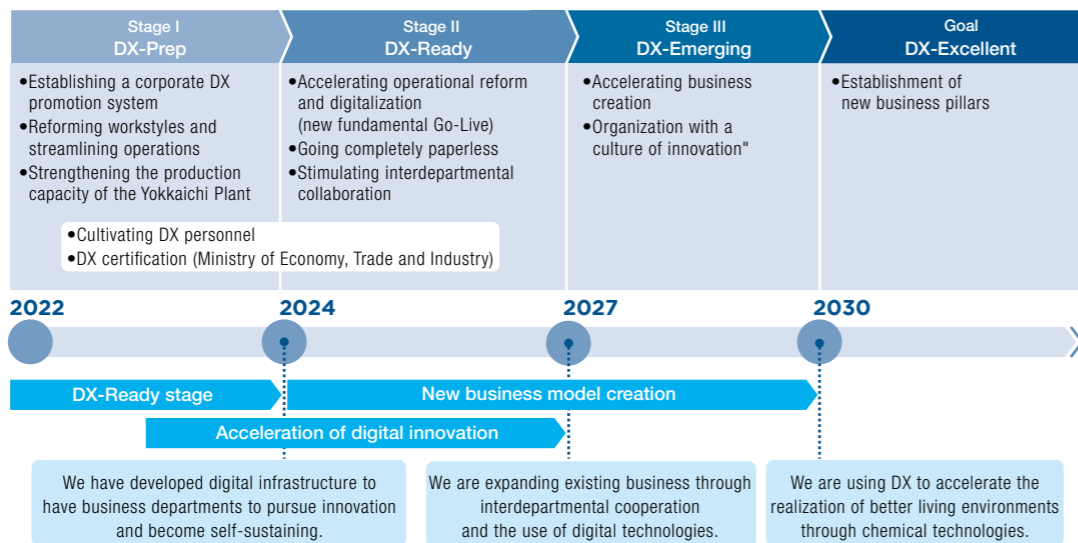
One of the priority goals for medium-term business plan ,Vision 2030 Stage I, is Reforming workstyles by pursuing digital transformation (DX) and streamlining operations.

We will promote digital technology-driven, company-wide DX and strengthen our business foundations with the aim of expanding existing business and creating new business adapted to customers' and society's changing needs and the changing business environment.

DX Strategy and Roadmap

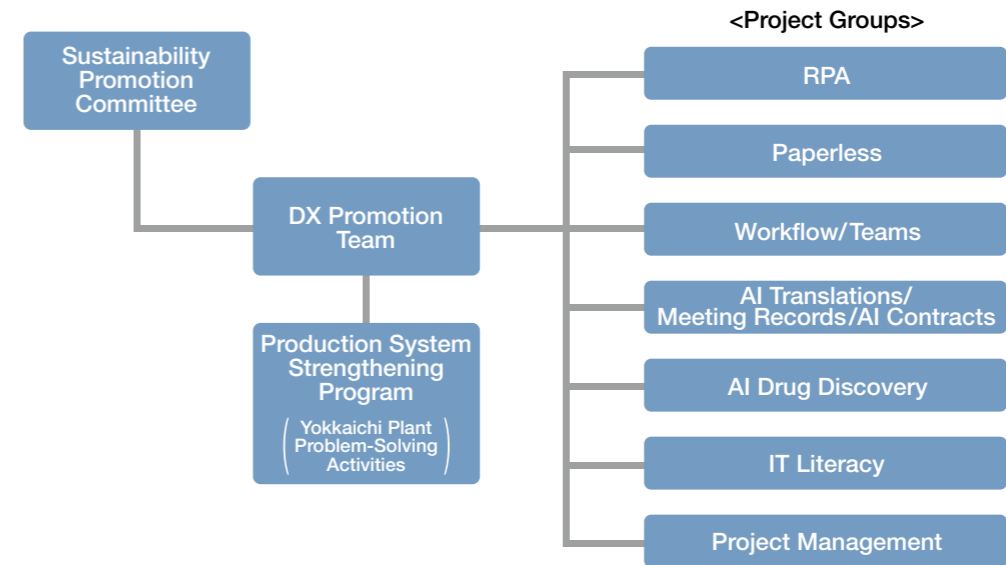
With a vision of utilizing DX to accelerate the realization of better living environments through chemical technologies, we are promoting DX in accordance with the following strategic policies. While our initial goal is to finish a DX-Ready stage, as we work toward Vision 2030, we will foster increasing maturation over the medium- to long-term to transform ourselves into an organization which leverages advanced digital technology.

1. Expanding existing business and creating new business adapted to customers' and society's changing needs
2. Reforming workstyles and strengthening manufacturing systems by pursuing streamlining operations
3. Improving IT literacy of all employees and utilization of digital technology and data
4. Reforming to the environment and culture where innovative idea can be attempted and implemented easily and swiftly



DX Promotion Structures

In order to realize our DX vision, we have established a DX Promotion Team which is under the purview of the Sustainability Promotion Committee. We are working to improve labor productivity and achieve workstyle reform by establishing themed project groups to focus implementation on those areas closely tied to business operations and, thereby, produce results while accumulating small success stories.



Cultivating DX personnel

With the aim of building a system which makes business departments to independently pursue DX, we first define the necessary DX personnel our company needs and then provide individually tailored training in order to cultivate human resources who possess operational knowledge and a certain level of IT skill.

DX Environment Development

In order to promote DX, we need to develop an environment where a shared awareness exists of the importance of moving away from existing ways of doing things and of embracing challenge. The DX Promotion Team is responsible for developing a system "DX Verification Promotion Plan" to address the provision of consultations and cost-related support when starting DX activity verification (with a small start), as well as strengthening both the IT infrastructure system and hardware environment.

Health & Productivity Management Promotion

At ISK, we treat health and productivity management as part of our management strategy and, thus, endeavor to create a workplace where the individual mental and physical health of employees is promoted, enabling them to work to their full potential. Our Health & Productivity Management Promotion System is overseen by the Human Capital Management Promotion Team established under the purview of the Sustainability Promotion Committee, where overall health and productivity management planning and operation is primarily handled by human resources departments (including on-staff public health nurses), the health insurance union and the labor union, jointly. Additionally, the progress of initiatives is regularly reported to the Board of Directors and Sustainability Promotion Committee, who discuss what further initiatives should be taken.

In fiscal 2022, we promoted health and productivity management from the two perspectives of “improving health literacy” and “maintaining and improving physical and mental health.” To improve health literacy, we conducted e-learning aimed at managers (100% participation rate), and survey results showed that it had a helpful impact on how they approach employees’ health management.

In the future, we will conduct e-learning and other training on the topics of “food” and “sleep.” Additionally, to help employees in maintaining and improving their mental and physical health, we make use of not only the “Brief Job Stress Questionnaire” but also the “New Job Stress Questionnaire,” which includes additional questions about work engagement, workplace unity and whether the workplace is free of harassment. In order to improve psychological safety at workplaces where there are many employees with high levels of stress, we contract an external organization to implement a workplace improvement program as part of our efforts to provide emotional care and better workplaces.

ISK has been recognized as a Health & Productivity Management Outstanding Organization (largescale corporate sector) in 2023 under the Certified Health & Productivity Management Outstanding Organizations Recognition Program overseen by the Ministry of Economy, Trade and Industry (METI) and the Nippon Kenko Kaigi.

The Yokkaichi Plant, which accounts for more than 80% of our employees, was also recognized as a “Mie Tokowaka Health Management Company (White Mie)” in 2023.

In the first half of fiscal 2023, our domestic Group companies also formulated health declarations in the name of each company’s representative director and made them known to their employees. All of the ISK Group will continue to work together to promote the health and productivity of its employees.



Introduction of Transfer-restricted Share Incentive System

In fiscal 2022, in order to improve employee benefits and facilitate sustained growth in corporate value, we introduced to the Ishihara Sangyo Kaisha Employee Stock Ownership Association a transfer-restricted share incentive system aimed at supervisors. We believe this will lead to greater “stakeholder-focused management” by facilitating an alignment of interests between supervisors and stakeholders, such as by fostering a management-participation mindset wherein the supervisors who assist with the running of the company think about corporate value creation from the same perspective as the shareholders and investors and by ensuring wealth realization through economic benefits derived from the long-term growth in ISK share value.

In fiscal 2023, we also introduced this system for supervisors at our domestic Group companies in order to strengthen the Group management mindset and foster a sense of unity. Through this, we will further leverage the Group’s collective strength towards achievement of the Vision 2030 goals and improvement of our corporate value.

[Purpose]

Continuing to Contribute to Better Living Environments through Chemical Technologies

– Connecting Our Purpose with Employees' Aspirations –

The purpose of the ISK Group encompasses a “willingness to embrace challenge in order to provide the indispensable.” We provide opportunities for purpose-related talks amongst the employees themselves to guarantee that this purpose resonates with our employees and encourages them to contribute to society through ISK's business activities.



Training for managers



Choosing managers who have been through training to serve as instructors



Communicating personal experiences with one another



Sharing future actions to be taken as a group

To help employees adopt this purpose as their own, we conduct workshop-style training which uses employees as facilitators. Participants engage in a voluntary exchange of opinions about the direction of the company from an internal rather than external perspective, as well as share their experiences and aspirations with one another. This is an opportunity for employees to think deeply about the significance of what they do at ISK, thus not only fostering a connection between the company's purpose and the work employees do, but also, with the values each employee holds.

This training has been conducted approximately 60 times company-wide and adopts a cross-functional format at each business location. Allowing employees to engage in opinion exchange with members of different departments that they would not normally interact with helps to give them new insights and awareness.



In-house enlightening poster

Voice of a Training Participant



Yokkaichi Plant
Titanium Dioxide Production Division Finishing Process Group
Assistant Unit Leader

Hisanori Ban

To be perfectly honest, prior to this training, I had no idea what relationship ISK Group's purpose has with my day-to-day operations. After taking the training and thinking about it for myself, I felt that the best thing I could do was start by trying to connect this purpose with my daily duties.

I have also come to understand that in the modern society, companies cannot simply pursue profit, they need to think deeply about their purpose in order to ensure that they are seen by society as essential.

Financial Summary (Consolidated)

(FY)

Fiscal year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Profit and loss											(Million yen)
Net sales	100,441	105,293	103,330	102,903	101,601	108,001	106,441	101,066	101,774	110,955	131,238
Operating income	2,792	3,038	11,104	8,314	8,415	10,022	11,372	6,188	5,173	11,557	8,631
Net income attributable to owners of parent	719	-8,207	6,661	9,151	3,804	3,442	8,683	2,359	3,373	11,690	6,947
Financial status											(Million yen)
Current assets	103,693	96,321	105,204	109,386	102,565	103,387	107,080	110,324	117,003	121,389	137,499
Property, plant and equipment	55,046	47,159	44,525	38,733	39,183	40,843	43,167	46,271	47,107	46,535	46,728
Intangible assets, investments and other assets	17,719	21,051	17,932	14,935	15,121	15,536	18,442	15,841	15,909	17,834	17,685
Total assets	176,459	164,532	167,662	163,056	156,871	159,767	168,689	172,437	180,021	185,758	201,913
Current liabilities	64,713	59,495	56,892	49,725	47,310	47,990	44,712	43,737	42,203	46,731	59,192
Long-term liabilities	59,904	60,337	59,990	54,396	46,579	44,638	48,642	52,029	58,302	47,157	45,289
Total net assets	51,842	44,699	50,779	58,933	62,981	67,137	75,335	76,669	79,515	91,869	97,431
Interest-bearing debt	85,772	77,654	78,738	67,686	58,781	51,328	49,528	52,531	60,103	50,420	56,081
Other											(Million yen)
Cash flows from operating activities	-7,198	12,067	6,351	10,268	14,631	16,607	4,907	3,317	4,749	16,501	-6,022
Cash flows from investing activities	-5,734	-4,125	-3,214	9,656	-5,950	-6,030	-8,590	-6,922	-6,162	-4,319	-5,021
Free cash flow	-12,932	7,941	3,136	19,925	8,681	10,577	-3,682	-3,605	-1,413	12,182	-11,043
Depreciation and amortization	5,699	5,271	4,757	4,458	4,215	4,214	4,266	4,445	4,669	4,545	5,225
Capital investment	6,127	2,758	3,049	4,507	5,407	6,142	7,141	8,062	6,092	4,542	5,330
R&D expenses	8,451	8,965	9,330	8,988	8,173	8,706	8,070	9,150	8,639	8,165	9,156
Per share status											(Yen)
Current net income per share	17.97	-205.19	166.58	228.88	95.15	86.12	217.25	59.03	84.41	292.58	175.75
Dividends per share	-	-	-	-	-	-	12.00	20.00	18.00	36.00	42.00
Financial indicators											
Operating margin (ROS, %)	2.78	2.89	10.75	8.08	8.28	9.28	10.68	6.12	5.08	10.42	6.58
Return on equity (ROE, %)	1.42	-17.00	13.95	16.68	6.24	5.29	12.19	3.10	4.32	13.64	7.34
Return on assets (ROA, %)	1.59	1.78	6.69	5.03	5.26	6.33	6.92	3.63	2.94	6.32	4.45
D/E ratio (double)	1.65	1.74	1.55	1.15	0.93	0.76	0.66	0.69	0.76	0.55	0.58

Non-Financial Summary

Fiscal year	2020	2021	2022
GHG (greenhouse gas) emissions (ISK Group companies*1)			
Year-on-year comparison of GHG emissions (%)	87.0	119.7	97.5
GHG emissions (thousand tons-CO ₂)	427	511	498
Waste (Japan, consolidated*2)			
Industrial waste (sludge) (tons)	62,625	74,962	80,798
Atmosphere sulfur oxides (SOx) (Japan, consolidated*2)			
SOx emissions (Nm ³)	5,478	10,223	7,044
Atmosphere nitrogen oxides (NOx) (Japan, consolidated*2)			
NOx emissions (kg)	198,039	209,394	201,412
PRTR-listed substances (Japan, consolidated*3)			
Atmospheric emissions (tons)	9.2	12.9	10.7
Emissions into bodies of water (tons)	64.6	63.5	84.3
Amount transferred (tons)	1,400	1,746	1,617
Water usage (Japan, consolidated*3)			
Water intake (thousand m ³)	24,017	28,694	28,716
Wastewater discharges (thousand m ³)	24,077	29,136	28,726
Water quality COD (Japan, consolidated*3)			
COD (kg)	58,625	62,093	62,246
Water quality Total Nitrogen (Japan, consolidated*3)			
Nitrogen pollutant load (kg)	159,884	163,706	198,509
Energy-related (Japan, consolidated*2)			
Total energy consumption (crude oil equivalent, kl)	145,890	162,458	158,145
Year-on-year comparison of energy intensity (%)	106.9	94.4	104.4
Energy intensity (kl/t)	0.90	0.85	0.89

(FY)

Fiscal year	2020	2021	2022
Workplace accidents (Japan, consolidated*2)			
Frequency rate of lost-worktime injuries	0.50	0.93	0.56
Severity rate	0.07	0.01	0.03
Number of employees (non-consolidated)			
Number of male employees	955	948	952
Number of female employees	194	196	194
Male employee ratio (%)	83.1	82.9	83.1
Female employee ratio (%)	16.9	17.1	16.9
Diversity and inclusion (non-consolidated)			
Female hired ratio (%)	18.6	27.5	11.8
Number of female managers	13	12	18
Female manager ratio (%)	5.4	5.1	7.6
Number of employees taking childcare leave	22	12	13
Annual paid leave acquisition rate (%)	73.6	77.0	81.9
Employees over 60 rehired after retirement (%)	86.4	88.9	97.6
Other (non-consolidated)			
R&D employee ratio (%)	20.9	20.5	22.2
Number of patents held	2,600	2,527	2,502

(FY)

*1 Entire ISK Group

*2 Operated by ISK and Fuji Titanium Industry Co., Ltd. Production facilities only.

*3 ISK and Fuji Titanium Industry Co., Ltd.

Consolidated Balance Sheet

(Unit: Million yen)

	Previous consolidated FY (March 31, 2022)	Current consolidated FY (March 31, 2023)
Assets		
Current assets		
Cash and deposits	27,073	17,662
Notes receivable – trade	2,768	2,233
Accounts receivable – trade	29,525	35,889
Electronically recorded monetary claims – operating	1,000	1,322
Contract assets	441	495
Merchandise and finished goods	32,813	37,558
Work in process	4,633	6,897
Raw materials and supplies	20,051	30,323
Other	4,190	6,292
Allowance for doubtful accounts	(1,109)	(1,175)
Total current assets	121,389	137,499
Noncurrent assets		
Property, plant and equipment		
Buildings and structures	42,395	43,265
Accumulated depreciation	(26,995)	(27,876)
Buildings and structures, net	15,400	15,389
Machinery, equipment and vehicles	115,277	117,078
Accumulated depreciation	(94,507)	(96,640)
Machinery, equipment and vehicles, net	20,770	20,437
Land	5,359	6,753
Leased assets	2,106	1,767
Accumulated depreciation	(1,276)	(893)
Leased assets, net	829	874
Construction in progress	3,327	2,419
Other	3,933	4,002
Accumulated depreciation	(3,086)	(3,149)
Other, net	847	853
Total property, plant and equipment	46,535	46,728
Intangible assets		
Software	519	413
Software in progress	484	969
Leased assets	3	1
Other	11	11
Total intangible assets	1,018	1,396
Investments and other assets		
Investment securities	7,456	8,106
Deferred tax assets	8,883	7,308
Net defined benefit asset	10	23
Other	550	900
Allowance for doubtful accounts	(85)	(49)
Total investments and other assets	16,815	16,289
Total noncurrent assets	64,369	64,414
Total assets	185,758	201,913

(Unit: Million yen)

	Previous consolidated FY (March 31, 2022)	Current consolidated FY (March 31, 2023)
Liabilities		
Current liabilities		
Notes and accounts payable – trade	16,680	22,682
Electronically recorded obligations – operating	1,058	1,366
Short-term loans payable	7,770	13,470
Current portion of long-term loans payable	8,298	8,956
Current portion of bonds	1,118	938
Lease obligations	355	403
Accrued income taxes	1,242	403
Contract liabilities	20	16
Accrued expenses	4,728	4,529
Provision for bonuses	851	870
Provision for environment and safety improvement	81	-
Provision for repairs	336	-
Provision for loss on business withdrawal	169	54
Other	4,020	5,500
Total current liabilities	46,731	59,192
Long-term liabilities		
Bonds payable	3,898	2,960
Long-term loans payable	24,831	25,647
Lease obligations	555	545
Provision for environment and safety improvement	1,384	1,145
Provision for repairs	83	238
Net defined benefit liability	13,058	12,166
Asset retirement obligations	160	82
Other	3,185	2,503
Total long-term liabilities	47,157	45,289
Total liabilities	93,889	104,481
Net assets		
Shareholders' equity		
Capital stock	43,420	43,420
Capital surplus	10,627	10,653
Retained earnings	38,592	44,102
Treasury shares	(734)	(2,710)
Total shareholders' equity	91,905	95,466
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	405	384
Foreign currency translation adjustment	(297)	1,309
Remeasurements of defined benefit plans	(143)	271
Total accumulated other comprehensive income	(36)	1,965
Total net assets	91,869	97,431
Total liabilities and net assets	185,758	201,913

Consolidated Statements of Income

(Unit: Million yen)

	Previous consolidated FY (April 1, 2021 to March 31, 2022)	Current consolidated FY (April 1, 2022 to March 31, 2023)
Net sales	110,955	131,238
Cost of sales	78,297	97,973
Gross profit	32,657	33,265
Selling, general and administrative expenses	21,100	24,633
Operating income	11,557	8,631
Non-operating income		
Interest income	16	40
Dividend income	180	202
Share of profit of entities accounted for using equity method	533	648
Foreign exchange gains	1,597	1,452
Gain on sales of raw materials	103	113
Other	288	453
Total non-operating income	2,720	2,911
Non-operating expenses		
Interest expenses	539	481
Financial fees	258	421
Other	206	290
Total non-operating expenses	1,005	1,194
Ordinary income	13,272	10,349
Extraordinary income		
Gain on forgiveness of debts	552	-
Gain on change in equity	2,736	-
Gain on sale of investment securities	41	76
Other	129	-
Total extraordinary income	3,459	76
Extraordinary loss		
Loss on disposal of noncurrent assets	969	862
Impairment loss	163	63
Loss on valuation of investment securities	2,344	-
Other	162	-
Total extraordinary losses	3,640	925
Income before income taxes	13,091	9,499
Income taxes – current	1,533	1,148
Income taxes – deferred	(132)	1,403
Total income taxes	1,401	2,551
Net income	11,690	6,947
Profit attributable to owners of parent	11,690	6,947

Consolidated Statement of Comprehensive Income

(Unit: Million yen)

	Previous consolidated FY (April 1, 2021 to March 31, 2022)	Current consolidated FY (April 1, 2022 to March 31, 2023)
Net income	11,690	6,947
Other comprehensive income		
Valuation difference on available-for-sale securities	714	(21)
Foreign currency translation adjustment	971	1,422
Remeasurements of defined benefit plans	(64)	414
Share of other comprehensive income of entities accounted for using equity method	17	185
Total other comprehensive income	1,638	2,001
Comprehensive income	13,328	8,949
(Comprehensive income attributable to)		
Comprehensive income attributable to owners of parent	13,328	8,949

Consolidated Statement of Changes in Net Assets

Previous consolidated FY (April 1, 2021 to March 31, 2022)

(Unit: Million yen)

	Shareholders' equity					Accumulated other comprehensive income				Total net assets
	Capital stock	Capital surplus	Retained earnings	Treasury share	Total shareholders' equity	Valuation difference on available-for-sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	
Balance at beginning of current period	43,420	10,627	27,872	(730)	81,189	(308)	(1,286)	(78)	(1,674)	79,515
Cumulative effects of changes in accounting policies			(251)		(251)					(251)
Restated balance	43,420	10,627	27,621	(730)	80,938	(308)	(1,286)	(78)	(1,674)	79,263
Changes of items during period										
Dividends of surplus			(719)		(719)					(719)
Profit attributable to owners of parent			11,690		11,690					11,690
Purchase of treasury share				(4)	(4)					(4)
Disposal of treasury shares		0		0	0					0
Net changes of items other than shareholders' equity						714	988	(64)	1,638	1,638
Total changes of items during period	-	0	10,970	(3)	10,967	714	988	(64)	1,638	12,605
Balance at end of current period	43,420	10,627	38,592	(734)	91,905	405	(297)	(143)	(36)	91,869

Current consolidated FY (April 1, 2022 to March 31, 2023)

(Unit: Million yen)

	Shareholders' equity					Accumulated other comprehensive income				Total net assets
	Capital stock	Capital surplus	Retained earnings	Treasury share	Total shareholders' equity	Valuation difference on available-for-sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	
Balance at beginning of current period	43,420	10,627	38,592	(734)	91,905	405	(297)	(143)	(36)	91,869
Changes of items during period										
Dividends of surplus			(1,438)		(1,438)					(1,438)
Profit attributable to owners of parent			6,947		6,947					6,947
Purchase of treasury shares				(2,003)	(2,003)					(2,003)
Disposal of treasury shares		26		28	54					54
Net changes of items other than shareholders' equity						(21)	1,607	414	2,001	2,001
Total changes of items during period	-	26	5,509	(1,975)	3,560	(21)	1,607	414	2,001	5,562
Balance at end of current period	43,420	10,653	44,102	(2,710)	95,466	384	1,309	271	1,965	97,431

Statement of Consolidated Cash Flows

(Unit: Million yen)

	Previous consolidated FY (April 1, 2021 to March 31, 2022)	Current consolidated FY (April 1, 2022 to March 31, 2023)
Cash flows from operating activities		
Income before income taxes	13,091	9,499
Depreciation and amortization	4,654	5,334
Gain on forgiveness of debts	(552)	-
Impairment loss	163	63
Loss (gain) on change in equity	(2,736)	-
Loss (gain) on valuation of investment securities	2,344	-
Increase (decrease) in allowance for doubtful accounts	1	23
Increase (decrease) in net defined benefit liability	(94)	(341)
Increase (decrease) in provision for environment and safety	(288)	(320)
Increase (decrease) in other provision	352	(277)
Interest and dividend income	(196)	(243)
Interest expenses	539	481
Foreign exchange losses (gains)	(30)	(44)
Share of (profit) loss of entities accounted for using equity method	(518)	(510)
Loss (gain) on disposal of noncurrent assets	215	221
Decrease (increase) in notes and accounts receivable – trade	977	(5,492)
Decrease (increase) in inventories	(2,339)	(15,964)
Decrease (increase) in other current assets	(768)	(1,914)
Increase (decrease) in notes and accounts payable – trade	2,823	5,048
Increase (decrease) in other current liabilities	201	741
Other	(71)	(92)
Subtotal	17,769	(3,786)
Interest and dividends income received	196	229
Interest expenses paid	(536)	(477)
Proceeds from insurance income	30	34
Income taxes paid	(957)	(2,022)
Cash flows from operating activities	16,501	(6,022)

(Unit: Million yen)

	Previous consolidated FY (April 1, 2021 to March 31, 2022)	Current consolidated FY (April 1, 2022 to March 31, 2023)
Cash flows from investing activities		
Purchase of investment securities	(15)	(21)
Purchase of noncurrent assets	(4,484)	(4,615)
Proceeds from sales of noncurrent assets	77	34
Payments of loans receivable	(61)	(128)
Collection of loans receivable	104	109
Other	60	(400)
Cash flows from investing activities	(4,319)	(5,021)
Cash flows from financing activities		
Net increase (decrease) in short-term loans payable	(330)	5,700
Proceeds from long-term loans payable	-	10,000
Repayments of long-term loans payable	(8,323)	(8,525)
Redemption of bonds	(1,118)	(1,118)
Repayments of lease obligations	(432)	(396)
Repayments of installment payables	(674)	(1,168)
Dividends paid	(719)	(1,438)
Net decrease (increase) in treasury share	(3)	(2,003)
Cash flows from financing activities	(11,601)	1,048
Effect of exchange rate change on cash and cash equivalents	550	584
Net increase (decrease) in cash and cash equivalents	1,132	(9,410)
Cash and cash equivalents at beginning of period	25,941	27,073
Cash and cash equivalents at end of period	27,073	17,662

For over a century, embracing challenges

Since foundation in 1920, the ISK Group has continued to grow by overcoming difficulties and flexibly changing its business to meet the needs of the times. The bedrock has been a willingness to embrace challenges passed down from our founder and carried on to today.



1920
ISK commences operation of an iron-ore mine on the Malay Peninsula. ISK has been meeting difficult challenges on the global stage since its founding.



1950
ISK begins producing agrochemicals, a cornerstone of the organic chemicals business, and becomes a pioneer in selective herbicides.



1970
ISK focuses its resources on environmental preservation, becoming one of the first industrial companies to build a comprehensive water treatment facility.



1999
After embarking on pharmaceutical production, ISK takes on challenges in life sciences, including the gene therapy business.

2010
ISK launches full-scale sales of super-weather-resistant titanium dioxide, marking a shift from general products to highly functional and high value-added products.



1920
Company founding

1920-1945
The origins of our willingness to embrace challenges

1945-1960
Entering new businesses

1960-1990
Expanding overseas amidst Japan's rapid economic growth

1990-2010
Fulfilling social responsibility

2010-2020
Become a strong and trusted chemical company

2020-2023
Looking ahead
To continue contributing to better living environments



1924
ISK begins handling its own ore shipping. Ships flying the company flag ply the oceans.

1934
The opening of the Kishu Mine, and the 1941 launch of operations at the Yokkaichi Plant, lay the foundations of ISK's domestic business.



1954
ISK begins producing titanium dioxide, a cornerstone of the inorganic chemicals business, and becomes a top domestic producer.

1958
ISK's business focus shifts from mining to chemicals. It opens a research institute in Yokkaichi and embarks on extensive R&D efforts.



1974
ISK responds to rapidly rising domestic and international demand for titanium dioxide by expanding its production facilities, becoming a major global producer.

1974
ISK weathers changes in the agrochemicals market and moves boldly to strengthen its in-house development capabilities. After careful preparation, the company sets a course for world markets.



2005
ISK embarks on 100% Ferosilt recovery and processing, achieving the goal in 10 years.

2008
ISK publicizes the results of its comprehensive compliance audit. The company mounts a unified effort to rebuild trust.

2018
ISK receives approval for domestic manufacture and sale of the world's first anti-pancreatitis agent for dogs.

2020
ISK celebrates the 100th anniversary of its founding. By contributing to society through technological development, the company aims to help achieve a sustainable world and raise corporate value.



Company Profile (As of March 31, 2023)

Company Name	ISHIHARA SANGYO KAISHA, LTD.
Head Office Location	3-15 Edobori 1-chome, Nishi-ku, Osaka 550-0002, Japan Tel: +81-6-6444-1451
Founded	September 10, 1920
Incorporated	June 1, 1949
Representative	Hideo Takahashi, Executive Director & President
Capital	43.4 billion yen
Sales	(Fiscal year ended March 31, 2023) Consolidated: 131,238 million yen Non-consolidated: 110,498 million yen
Number of Employees	Consolidated: 1,768 Non-consolidated: 1,146

Network / Group Companies

Network

Head Office, Central Research Institute, Yokkaichi Plant, Tokyo Branch, Chubu Branch, Sapporo Sales Office, Sendai Sales Office, Fukuoka Sales Office, Argentina Branch, Singapore Branch

Group Companies

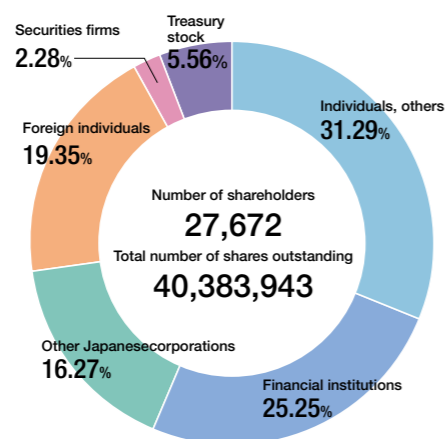
Japan	<ul style="list-style-type: none"> ■ ISK BIOSCIENCES K.K. Sale of agrochemicals ■ ISHIHARA TECHNO CORPORATION Trade in organic and inorganic chemical products ■ FUJI TITANIUM INDUSTRY CO., LTD. Manufacture and sales of titanium dioxide, functional materials, others ■ MF MATERIAL CO., LTD. Manufacture and sale of functional materials ■ ISK ENGINEERING PARTNERS CORPORATION Construction ■ ISHIHARA SANZO KAISHA, LTD. Manufacture and sale of industrial gases ■ ISHIHARA KOSAN CO., LTD. Asset management ■ GENOMIDEA INC. Asset management ■ HOKUSAN CO., LTD. Manufacture and sale of agrochemicals 	Belgium	<ul style="list-style-type: none"> ■ ISK BIOSCIENCES EUROPE N.V. Administration of agrochemicals business in Europe; manufacture and sales of agrochemicals
		The Netherlands	<ul style="list-style-type: none"> ■ CERTIS BELCHIM B.V. Sale of agricultural materials
		U.S.A.	<ul style="list-style-type: none"> ■ ISK AMERICAS INCORPORATED Administration of U.S. subsidiaries ■ ISK BIOSCIENCES CORPORATION Administration of agrochemicals business in Americas; manufacture and sales of agrochemicals ■ ISK BIOCIDES, INC. Sale of wood preservatives ■ IBC MANUFACTURING COMPANY Manufacture of wood preservative and agrochemicals ■ ISK ANIMAL HEALTH, LLC (Ohio) Manufacture and sales support of animal health products ■ ISHIHARA CORPORATION (U.S.A.) Sale of inorganic chemical products ■ ISK MAGNETICS, INC. Asset management ■ SUMMIT AGRO USA, LLC Sales of agricultural materials and manufacture of agrochemicals
Taiwan	<ul style="list-style-type: none"> ■ ISK TAIWAN CO., LTD. Sale of inorganic chemical products 	Mexico	<ul style="list-style-type: none"> ■ ISK BIOSCIENCES, S.A. DE C.V Registration and sale of agrochemicals
Korea	<ul style="list-style-type: none"> ■ ISK KOREA CORPORATION Sale of inorganic chemical products ■ ISK BIOSCIENCES KOREA LTD. Administration of agrochemicals business in South Korea; manufacture and sale of agrochemicals 	Brazil	<ul style="list-style-type: none"> ■ ISK BIOSCIENCES DO BRASIL DEFENSIVOS AGRICOLAS LTDA. Registration and market development of agrochemicals in Brazil
Thailand	<ul style="list-style-type: none"> ■ ISK BIOSCIENCES (THAILAND) LTD. Registration and market development of agrochemicals in Thailand 		
India	<ul style="list-style-type: none"> ■ ISK BIOSCIENCES INDIA PVT. LTD. Registration, manufacture and sale of agrochemicals 		
China	<ul style="list-style-type: none"> ■ ZHEJIANG ISK & TAURUS CHEMICAL CO., LTD. Sale of agrochemicals ■ ISK (SHANGHAI) CHEMICAL CO., LTD. Registration and sale of agrochemicals 		
Philippines	<ul style="list-style-type: none"> ■ AVC CHEMICAL CORP. Sale of agrochemicals 		

■ Consolidated subsidiary company
 ■ Equity method affiliated company
■ Non-consolidated subsidiary company
 ■ Non-equity method affiliated company

Stock Information (As of March 31, 2023)

Total Number of Shares Authorized	100,000,000 shares
Total Number of Shares Outstanding	40,383,943 shares
Number of Shareholders	27,672
Stock Exchange Listing	Tokyo Stock Exchange, Prime Market
Stock Code	4028

Shareholder Composition



Total Shareholder Return

(Unit: %)

	FY2018	FY2019	FY2020	FY2021	FY2022
ISK	87.6	44.9	73.8	89.3	95.5
TOPIX	95.0	85.9	122.1	124.6	131.8
TOPIX Chemical	96.0	89.1	120.5	110.9	116.2

Major Shareholders (As of March 31, 2023)

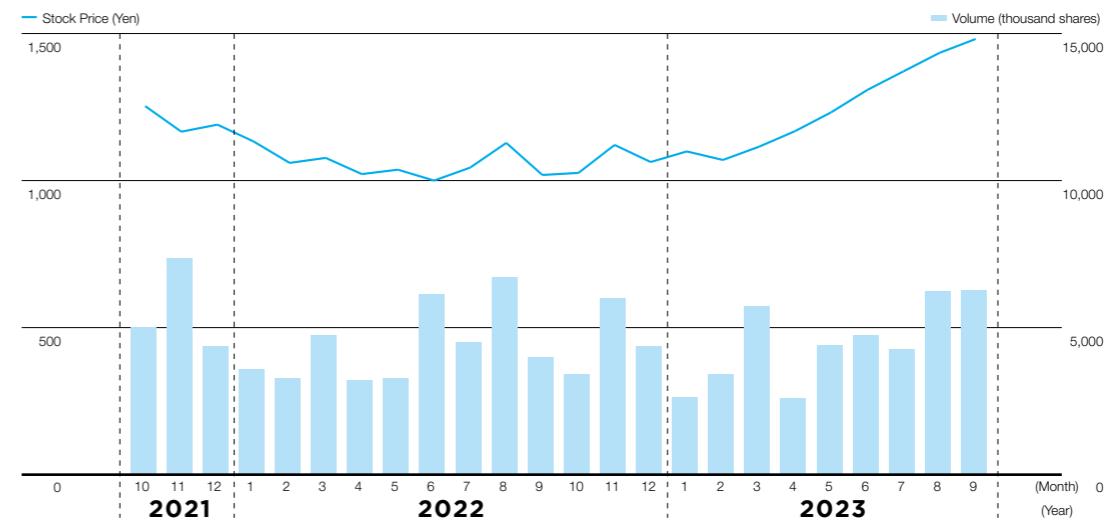
Shareholder	Investment in ISK	
	Number of shares held (thousands)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (trust account)	4,768	12.50
Custody Bank of Japan, Ltd. (trust account)	3,675	9.64
Mitsui & Co., Ltd.	2,019	5.29
Toagosei Co., Ltd.	1,722	4.52
UPL Japan GK	1,170	3.07
Ishihara Sangyo Kaisha Client Stock Ownership Association	1,039	2.73
BNP PARIBAS PARIS/2S/JASDEC/FBB SEC/BELCHIM MANAGEMENT	960	2.52
Ishihara Sangyo Kaisha Employee Stock Ownership Association	830	2.18
DFA INTL SMALL CAP VALUE PORTFOLIO	821	2.15
CREDIT SUISSE AG	537	1.41

Notes:

1: The shareholding ratio is calculated after deducting treasury stock.

2: In addition to the above, the Company owns 2,243 thousand shares of treasury stock.

Stock Price and Trading Volume



Editorial Policy

This integrated report is intended to provide stakeholders with integrated financial and non-financial information on the ISK Group (on a consolidated basis), which operates in and outside Japan. The report includes business results, as well as management policies and business strategies for creating value in the medium- and long-term.

Coverage

Organizations: Ishihara Sangyo Kaisha, Ltd. (ISK) and its consolidated subsidiaries and affiliates

Period: Fiscal 2022
(April 1, 2022 to March 31, 2023)

Note: The report contains some information prior to and after this period.

Referenced Guidelines

Integrated Reporting, International Integrated Reporting Council (IIRC)
Guidance for Collaborative Value Creation; Ministry of Economy, Trade and Industry, Japan
Environmental Reporting Guidelines (2018 version), Ministry of the Environment, Japan
GRI Standards, Global Reporting Initiative (GRI)

Website

Ishihara Sangyo Kaisha, Ltd. Official Website

<https://www.iskweb.co.jp/eng/>



Investor Relations

<https://www.iskweb.co.jp/eng/ir/>



- Latest stock price information
- Topics
- Latest IR materials
- Management policies and organization
- IR library
- Stock information

Sustainability

<https://www.iskweb.co.jp/eng/environment/>



- Top commitment
- Sustainability structures
- Environmental initiatives
- Social initiatives
- Governance initiatives