



vol.

Integrated Report
2021



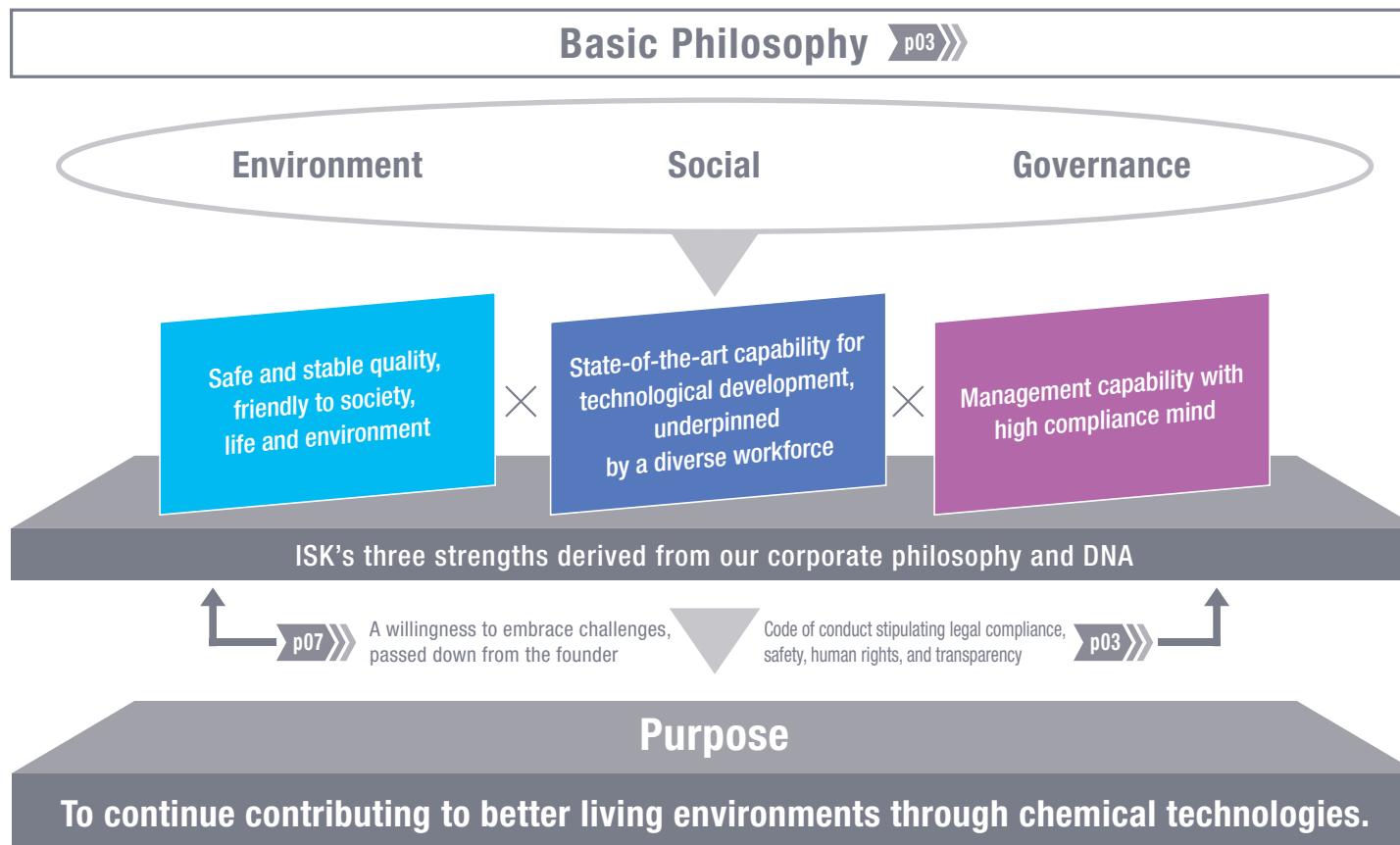
Vision 2030

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

ISK Group's Purpose

To continue contributing to better living environments through chemical technologies

Along with Vision 2030, we ISK Group formulated Corporate Purpose, our reason for existence in society. Corporate Purpose expresses our resolve to provide better living environments for people all around the world. We will achieve this through our “chemical technologies”—such as fine particle synthesis technology, surface treatment, ultrafine particularization, and organic synthesis—the core of our competitiveness, our “corporate philosophy” anchored in ESG (environment, social, governance), “a willingness to embrace challenges” that has been in our DNA since our foundation and the three strengths; quality, technological development capability and management capability.



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 ISK 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.

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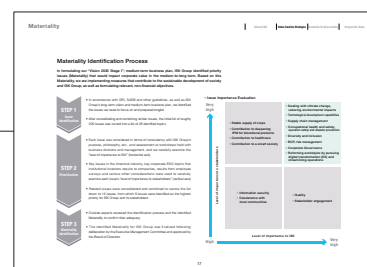
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Message from the President

Conduct Business “Aggressively” Looking Outward and Forward

With my appointment as Executive Director and President on June 25, 2021, now I brace myself for an important responsibility to guide all Ishihara Sangyo Kaisha (ISK) Group as the company enters the 101st year since foundation. With our aim of “transforming lives through the power of chemistry”, I will lead our business aggressively and take the risks that we avoided in the past. We appreciate everyone’s continued advice and guidance that kindly provided former President over the years.



Materiality

Materiality Identification Process

In formulating our “Vision 2030 Stage I”; medium-term business plan, ISK Group identified priority issues (Materiality) that would impact corporate value in the medium-to-long term.



**Inorganic
Chemicals
Business**

Contributing to the environment and the development of digital society through the creation of new value

The flagship product of our inorganic chemicals business is titanium dioxide, which is primarily used as a white pigment in paints, plastics, inks and other industrial products, cosmetics, synthetic fibers, and more. In addition to the more common sulfate process, we are the only manufacturer in Japan to utilize the more environmentally friendly chloride process* in manufacturing titanium dioxide. We develop and sell highly functional and high value-added products, including electronic component materials, electro-conductive materials, and other functional materials and heat shield materials.

*A technologically demanding manufacturing process, which produces little industrial waste



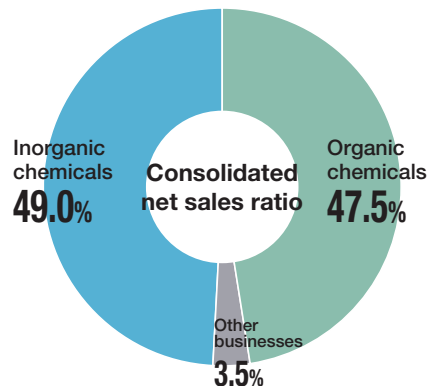
Titanium Dioxide

TIPAQUE™ is our top brand of titanium dioxide white pigment and the leading brand in Japan, as well as a well-established brand overseas, thanks to its brilliant whiteness, high hiding power, powerful tinting strength when used with plastics, and various other properties.



**Functional Materials
(Electronic Component Materials)**

We supply highly pure titanium dioxide and other materials for use in ceramic electronic components, such as capacitors and filters. In particular, our barium titanate, which is manufactured using an oxalic acid process requiring stringent quality control, is highly regarded in the industry as a material for multilayer ceramic capacitors.



**Organic
Chemicals
Business**

Contributing to the nutrition, health, and life of people worldwide

The flagship products of our organic chemicals business are agrochemicals, including herbicides, fungicides, and insecticides. In Japan, we were the first to introduce synthetic agrochemicals technology. Our products are highly rated overseas, including in the American and European markets, and the value of our exports is among the largest in Japan. Additionally, we have applied the organic synthesis technology cultivated in our agrochemicals business to the development of active pharmaceutical ingredients and animal health products as new growth areas.

Agrochemicals

Since the introduction of herbicides to Japan some 70 years ago, ISK has been a domestic pioneer in the agrochemicals business, cultivating world-class development capabilities to become a global supplier of agrochemicals that are safe for humans and the environment. We help ensure the stability of the global supply of crops.



Animal Health Products

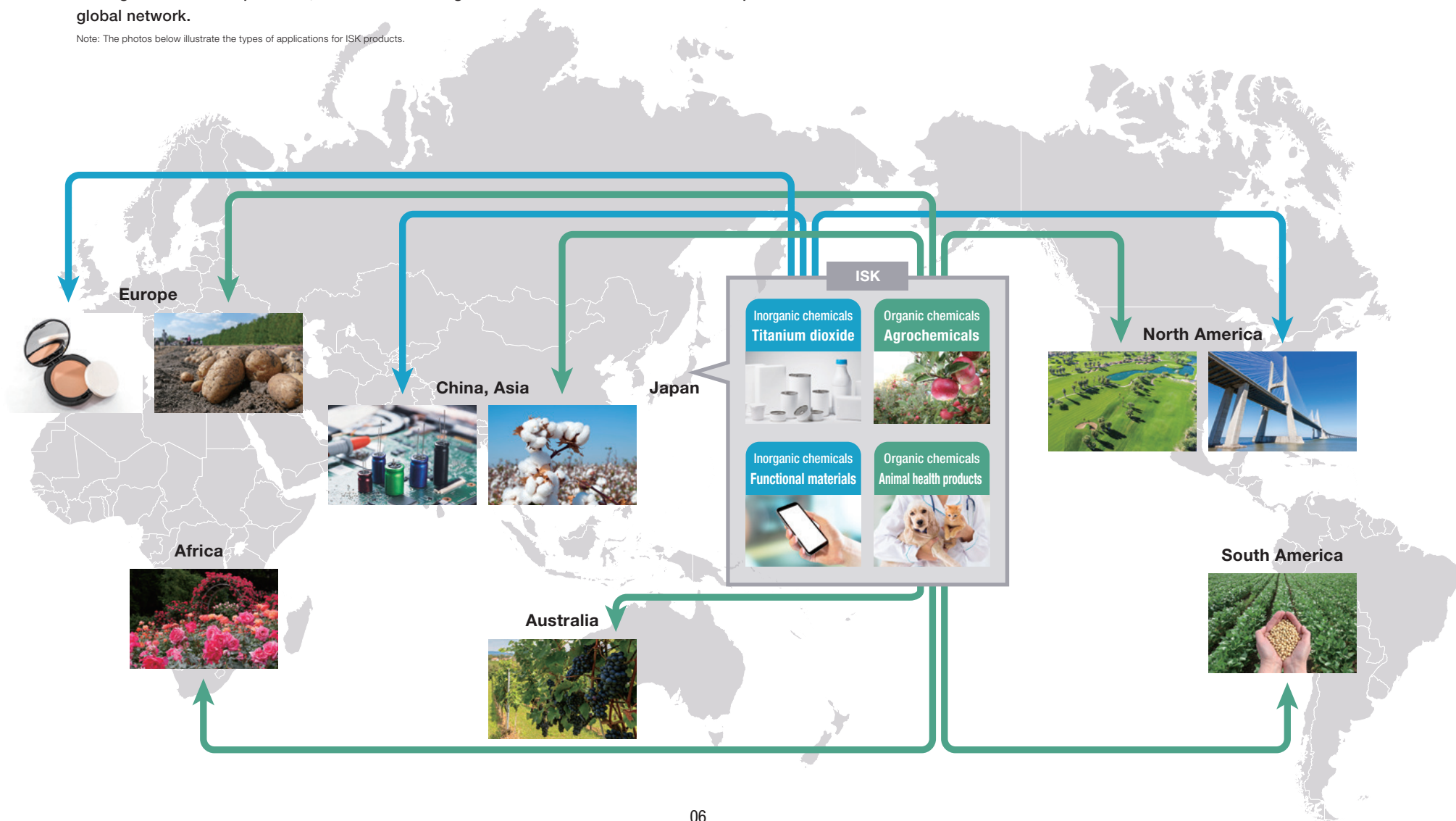
We manufacture and sell in Japan BRENDA™, the world's first anti-pancreatitis drug for dogs. We also supply the co-developers of this product with the active pharmaceutical ingredient. Additionally, we are working to secure approval for full-scale release of BRENDA™ onto the American and European markets. Moving forward, we will continue to provide products tailored to the needs of pet owners and animal healthcare professionals.



Serving the World

Ever since it was founded, ISK Group has used its technological development capabilities to create high-value-added products, which it has brought to worldwide customers via an expansive global network.

Note: The photos below illustrate the types of applications for ISK products.



Conduct Business “Aggressively” Looking Outward and Forward

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Executive Director and President
Hideo Takahashi



My Position and Responsibilities

What Must We Do 10 Years From Now?

I was first approached by former President Mr. Tanaka about taking on this job in late March 2021, when I was Director of Yokkaichi Plant. He was visiting the plant on another matter, but he told me he was leaving his post and showed me a succession plan, on which my name appeared as President. "Why me?", I asked. "Only you can do it," he replied.

Former President Mr. Tanaka had used to discuss management issues with me, but I didn't think it was relevant to me as Plant Director. It all became clear on that day he visited the plant.

Although I didn't respond clearly to his offer then and there, in my heart I had already decided to accept. I vowed to do what I want to, and what I have to, and if not successful, I just take responsibility and leave the post. Now, as the current position, I still feel that way.

Former President Mr. Tanaka's six years as President at first saw the Ferosilt problem still lingered, which existed before his appointment, and he devoted the utmost effort to redress the situation. Therefore, it is understandable that the company's management stance tended to be relatively passive. In the latter half of his presidency, however, he finally achieved his goals of resuming dividend payments and implementing new capital investment. Today, as we can clearly find the path to solve the problems, we believe that what we need to do is look outward and forward, and be aggressive to the matters.

In the next three years, we will examine what we want to do and what we have to do to achieve the goals of Vision 2030, targeted at 10 years from now. The weaknesses that beset the company have been eliminated thanks to the six years of work by former President Mr. Tanaka. Now is the time for us to look seriously into any project that will potentially reap big rewards, even if it carries risks and requires investment.

ISK Group's existing businesses can earn large profits when external factors such as the economy and the weather are favorable, but they also risk losing money when these factors are very unfavorable. This is what we want to change. It's not enough just to develop new products in existing businesses; we have to develop entirely new businesses.

This is the mission assigned to me. In our organic chemicals business, besides our existing agrochemicals, we will make our recently launched animal health products the third pillar of business at the earliest possible stage. In our inorganic chemicals business, we will bring to market our new specialty and functional materials as much as possible. Even if it is difficult to realize everything during my tenure, I will at least pave the way to the goal.

On the other hand, these days it's no longer enough simply to turn a profit. A company must conduct work that satisfies all stakeholders. ISK Group is continued today through existing businesses due to not just making money, but also continuously contribution to society's needs like comfortable lives and food safety. We want to continue moving ahead with business by always being aware of our contribution.

Internally, our policy is to boost our strategic planning capabilities. As our products have stable demand, there has been a tendency to be conservative in business and hard to foster an outward-looking culture in the company. However, this is no longer suffice. We must forge ahead in building systems that allow us to plan strategically with an eye to 10 and 20 years ahead. To this end, I will study whether to strengthen our current Corporate Administration & Planning Headquarters, or take a different approach.

I joined ISK in 1980. After studying applied chemistry in university, I was assigned to the company's inorganic chemicals business, and for 35 years I worked at the laboratory in Yokkaichi Plant developing functional materials. After that, I spent four years at our Tokyo Branch in sales of functional materials, because my boss told me that people making new products should also sell them. For the last two years, I was Director of Yokkaichi Plant. My home is in Yokkaichi City, but I currently live alone close to the Head Office in Osaka, which is fine since I was born and grew up in Osaka. However, I'm surprised to know summer in Osaka is much hotter than it used to be.

Around the time I joined the company, ISK Group didn't have functional materials, and discussion started as to whether we could survive with only white pigments. I was assigned to one of the members to leverage the unique properties of titanium dioxide, and since that time I have been involved in one way or another with all of ISK Group's development of functional materials. In those days, we went through seemingly endless trial and error and sometimes worked through the night to solve problems.

When I became Director of Yokkaichi Plant, former President gave me five tasks. The first was to make a comprehensive plan to update the aging facilities at Yokkaichi Plant—which had been operating for 82 years—so that it could continue running into the future. The second was to revise our system for facilities maintenance. To do this, I paved the way to reduce costs by transferring maintenance work, which had been previously outsourced to our subsidiary, to our new organizational structure at Yokkaichi Plant. The third task was to secure a waste disposal site. Extracting titanium dioxide from the feedstock ore generates about 200 to 300 tons of waste, mainly iron oxide, per day. Our disposal capacity was stretched to the limit, so we acquired a new disposal site. This enables us to extend the limit for the next 20 to 30 years. The fourth task was to utilize various feedstock ore as efficiently as possible. Going above and beyond our in-house standard for feedstock, we actively conducted on-site trials in utilizing a wide range of quality. The fifth task was to reduce our CO₂ emissions. The large amounts of electricity and steam for manufacturing titanium dioxide and other products depend on coal-fired boilers, which generate a lot of CO₂. We have to improve this.

Although replacing all of our aging equipment and reducing CO₂ emissions are medium- to long-term tasks we are still working on, we are currently creating roadmaps for them. The CO₂ emissions problem requires us to coordinate with neighboring chemical plants. It will take some time, but as the President I want to tackle these problems so that by 2030 we will have made progress.

Vision 2030 and Medium-Term Business Plan

3 Years of Preparation, Followed by Implementation and Realization

Vision 2030 clearly states the direction that ISK Group must take: “Transforming lives through the power of chemistry”. We believe it is our mission to provide our products that transform society through the power of chemistry. With our agrochemicals, we help feed the world, and we do so by providing highly safe chemicals. With our titanium dioxide products, we have always done more than simply help make paints; for example, we provide photocatalytic titanium dioxide that eliminates viruses and heat shield materials that contribute to energy savings. Climate change continues to inflict damage on agricultural production around the world. Increasing food production is one of the pressing issues for the human race. Crops must be produced more efficiently on the limited arable land, and one supportive way is to use agrochemicals. Additionally, with rapid advancements in IT, new electronic component materials are garnering increasing attention. Titanium dioxide holds tremendous potential in the field. For example, barium titanate demand is definitely growing since it is necessary to make the condensers that are indispensable to IT equipment and electric vehicles.

Against the background of these megatrends, our Vision 2030 has set targets including annual net sales of over 200 billion yen. The first step towards this is the Vision 2030 Stage I as medium-term business plan, which we launched in April 2021.

ISK Group medium-term business plans had previously looked no further than the coming three years. Therefore, the business plans sometimes contained wishful thinking. Regarding Stage I, however, it is a plan outlining what should be done in the next three years based on the precondition of attaining the goals of Vision 2030, 10 years in the future. Including precarious targets would jeopardize the next three years, so we prepared our Stage I that is highly likely to be realized.

Targets for Stage I include annual net sales exceeding 125 billion yen, with one focus being to grow our organic chemicals business. As it prioritizes viability, it does not calculate contributions from new businesses other than from animal health products. In our inorganic chemicals business, Stage I aims to achieve its targets by increasing the sales ratio of highly functional and high-value-added products, and sales of electronic component materials and electro-conductive materials. In our organic chemicals business, it aims for lower cost production and stable supply of our main agrochemical ingredients, and reduced production costs for upcoming main agrochemicals.

Stage II starting in fiscal 2024 will see us embark on efforts such as new businesses and industry alliances. Stage III from fiscal 2027 aims for higher revenue. In other words, the positioning for Vision 2030 is as follows: Stage I for preparation, Stage II for implementation, and Stage III for realization.

As for capital investment during these three stages, we estimate from 7 to 8 billion yen annually. Capital investment is divided into two categories: new facility investment such as building new plants and installing high-efficiency

equipment; and renewal investment for updating existing equipment. At the moment, there is likely to be more demand for the latter. However, the updated equipment will be different from the existing, and we have started to install equipment that uses new methods to achieve higher productivity. We are also looking to take a scrap-and-build approach to antiquated equipment. Regarding capital investment in new facilities, we foresee putting this into action from the final year of Stage I onwards.

Research and development spending during Vision 2030 has been set at about 8 to 9 billion a year. About 80% will be for agrochemical-related, with priority placed on registration fees to countries' regulatory authorities, and testing costs prior to seeking the registration. In addition to chemical control agents, we see biological control agents taking on increasing importance and will therefore focus on their development.

ESG

Sustainability Promotion Committee Positioned Directly under President

An important element of Vision 2030 is to contribute to the realization of a sustainable society. While ISK Group's business and products sustainably protect people's lifestyles and health, we are seeking to go further and become a good corporate citizen through a focus on ESG (environmental, social, governance).

Environmentally, we want to recover valuable resources from the waste that goes to landfills. Reducing the amount of waste serves the dual purpose of reducing environmental impact and cutting costs. In the medium to long term, we should replace the coal-fired boilers at Yokkaichi Plant with clean energy such as hydrogen or ammonia. Cost-wise, however, this will be difficult to do all at once.

Socially, struggling through the difficult problem of Ferosilt, we were able to make great strides in compliance, safety, and quality. To deal with HR issues, in October 2020 we launched a new human resources system to improve the way we evaluate and compensate our employees. By properly operating this new system, we will foster individuals who can change ISK Group for the better, and also continue to build training and other systems to encourage employees' growth. Furthermore, we should tackle the problem that the number of female managers at ISK Group is much less than others. We will place more women in previously male-centered divisions in order to even out the personnel composition.

Governance-wise, we are building a company system that complies with Japan's revised Corporate Governance Code. In order to better deal with sustainability issues, we launched a Sustainability Promotion Committee directly under the President. We continue to consider the organizational changes that comply with the revised Corporate Governance Code.



Business Environment and the Future

Larger and Stable Dividends Through Increased Revenue

Let's look at the current business environment surrounding ISK Group. Although COVID-19 has adversely affected the world economy and caused much uncertainty, we have so far managed to escape any major negative effects on performance because our products are directly linked to essential sectors like lifestyles and food.

In our inorganic chemicals business, thanks to robust demand for IT equipment resulting from people staying at home during the pandemic, demand increased for our electronic component materials. Titanium dioxide sales have also performed well, thanks to rapid economic recovery, mainly in China.

In our organic chemical business, demand shows further growth as crop manufacturers move to procure agrochemical products as early as possible. The reason is that with strong demand for soybeans and other grains, producers want to increase their yield by using more fungicides.

This trend shows no signs of changing, and sales are good as we approach the fiscal term end. However, the COVID-19 lockdown in India is causing delays in plant construction. For the present, we are taking measures to minimize the impact on our business.

We forecast that shareholder dividend will be 25 yen per share, up 7 yen over our initial forecast of 18 yen per share. But we still don't feel this is sufficient. We want to continue paying stable dividends—and even steadily raise them—by boosting business performance. We will monitor the situation and look at other return besides dividends to give back to our shareholders.

In my 41 years at ISK, I have come to understand that ISK Group has three great assets. The first is the ability to get things done. Our employees have been able to work together and solve difficult matters such as the Ferosilt problem. Fundamental to this is the second asset, the power of solidarity. The third asset is our technological development capabilities. In our inorganic chemicals business, we have some one-of-a-kind products. In our organic chemicals business, it usually takes 7 to 10 years to develop one agrochemical product, but we have the stable capabilities to cope with. We have also been developing and registering new agrochemical products in all the countries around the world. ISK Group's development and registration capabilities have become highly regarded as global level due to the successful track record even in Europe, the increasingly strictly regulated markets.

Our business today, built on the continuous improvement through these assets, doesn't just sustain our company; it contributes to better living and eating for people worldwide. This ideal will never change, even as we launch new businesses in the future. Although we're not a flashy company that strongly attracts the general consumer, we do provide products in order to support society. That's the kind of company we want to be evermore.

Vision 2030 Summary

For Transforming Lives Through the Power of Chemistry

We ISK Group formulated Vision 2030 on our 100th anniversary. Here, we will explain the details yet reported in the 2020 Integrated Report, as well as the path to realizing Vision 2030.

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.

■ 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

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 characteristics 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 or agrochemicals
- > Establishing structures to pursue carbon neutrality by 2050

■ 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

Management Targets (2030)

- 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.

“Vision 2030 Stage I”, New Medium-Term Business Plan

Aiming for Sustainable Corporate Value Creation

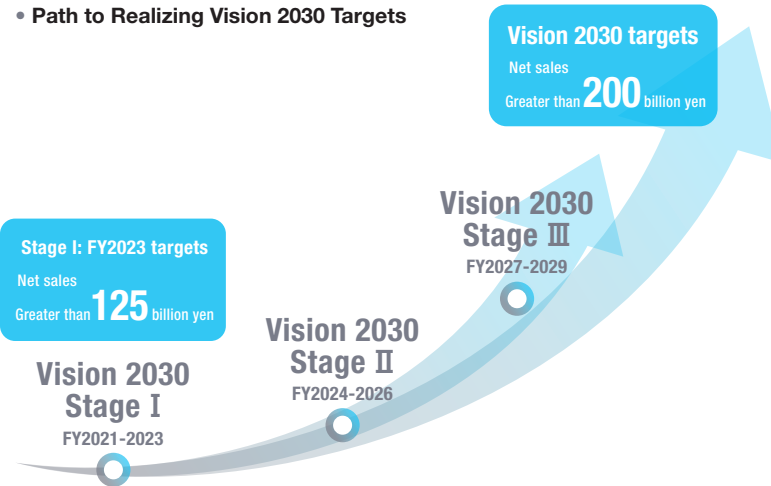
As the first step towards the realization of Vision 2030, we formulated new three-year medium-term business plan, “Vision 2030 Stage I” (April 2021–March 2024). This aims to create more value by incorporating the perspectives of ESG and the SDGs into our management.

Basic Policy

Creating sustainable corporate value by strengthening management performance from ESG and the SDGs perspective

FY2023 Management Targets

- Consolidated sales Over **125** billion yen
- Consolidated operating margin **13%** or more
- ROE **10%** or more
- Shareholder return policy Continue stable dividend payments that reflect consolidated performance



Strategic Directions

Overall management
Strengthening sustainable management initiatives from the perspective of ESG and the SDGs

Inorganic chemicals business

- Contributing to the environment and the development of digital society through the creation of new value
- Expansion of highly functional, high-value-added products
- Production structure reforms

Organic chemicals business

- Contributing to the nutrition, health, and life of people worldwide
- Establishing a robust global value chain
- Continuing steady efforts to lower costs

Research and development

- Embracing the challenges of technological innovation
- Regularly creating new products
- Developing products that are informed by ESG considerations

Overview of Vision 2030 Stage I

Priority Measures in Our Businesses

Inorganic chemicals business

- Increasing the sales ratio for highly functional, high-value-added products
- Implementing a strategy to expand sales of high-purity materials for electronic components, and electro-conductive materials
- Accelerating development of new products that will serve as drivers of further growth
- Procuring feedstock ore in stable and favorable terms
- Lowering costs at the Yokkaichi Plant by reducing wastes and improving manufacturing and operational processes
- Launching a master plan to optimize manufacturing sites
- Creating a roadmap to reduce greenhouse gases

Organic chemicals business

- Increasing our share of the global market by manufacturing flagship agrochemical ingredients at the lowest cost in the world and supplying them in a stable manner
- Reducing the manufacturing cost of next-generation flagship agrochemicals and increasing demand
- Developing and commercializing biorational products and deepening integrated pest management (IPM)
- Implementing strategic, innovative sales measures, for example by utilizing multiple agrochemical sales companies
- Acquiring and maintaining agrochemical registrations in various countries worldwide
- Expanding the scale of our businesses by pursuing M&As and partnerships with other companies
- Strengthening our base for refining and passing on chemical synthesis technologies
- Rolling out animal health products worldwide

*IPM: Integrated pest management; controlling pests with consideration for the ecosystem as a whole

Measures that apply to both businesses

- Growing our top line (sales)
- Strengthening our ability to create new businesses and products
- Carrying out internal structural and awareness reforms so that we can achieve the Vision 2030 goals

Capital policy

- Strengthening shareholder return (continuing to pay stable dividends)
- Aggressively pursuing capital cost management (realizing improvements throughout the cash conversion cycle, etc.)

Overall management

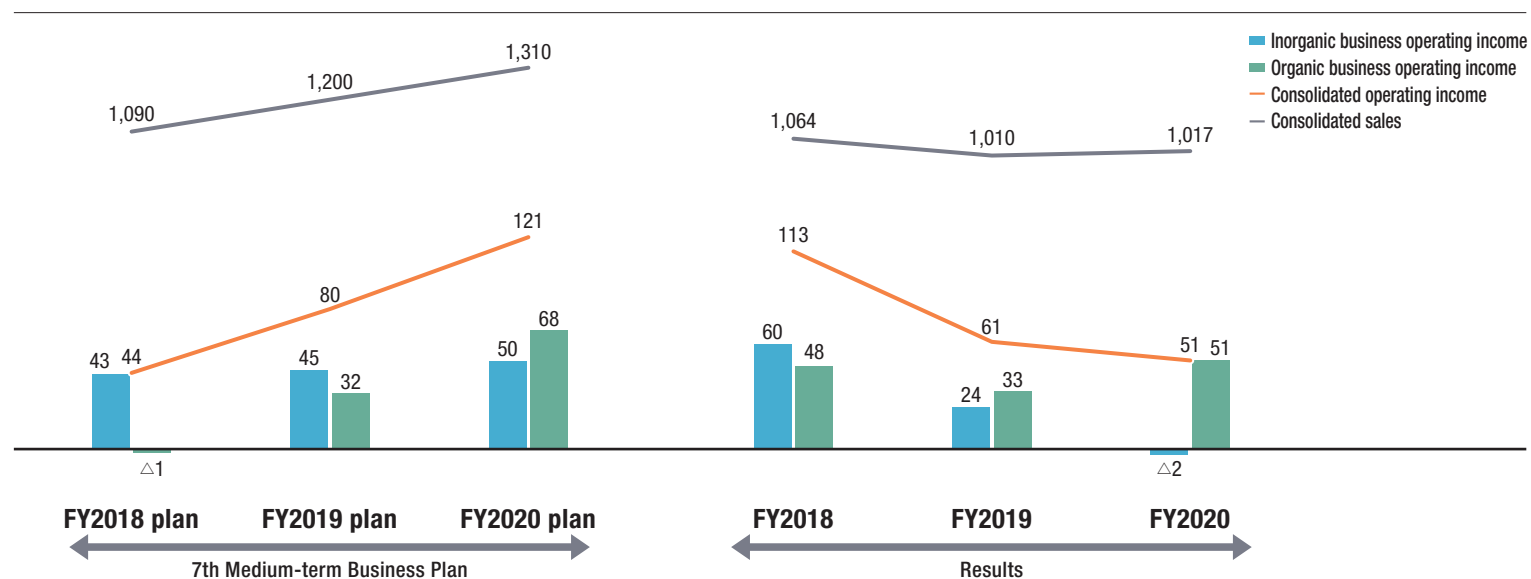
Pursuing and strengthening sustainable management initiatives from the perspective of the SDGs

- Expanding the business opportunities available to us through management from the perspective of ESG and the SDGs
- 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

Results of the Previous Medium-term Business Plan and Remaining Issues

During the previous medium-term business plan (April 2018–March 2021), we had various successes including the resumption of dividend payments and the sales launch of animal health products. However, as we yet achieve the targeted level for high-value-added products sales and cost reduction, those issues have been carried over into the new medium-term business plan period.

7th Medium-term Business Plan Versus Results (100 million yen)



Results

- We achieved resumed dividend payments in FY2019 and paid a dividend to commemorate the 100th anniversary of our founding in FY2020
- We joined Mitsui & Co., Ltd, in making a joint investment in Ouro Fino Química Ltda, a Brazilian manufacturer and distributor of agrochemicals, in FY2019
- We began selling animal health products in FY2018.
- We expanded production facilities for electronic component materials and electro-conductive materials together with our subsidiary, Fuji Titanium Industry Co., Ltd.

Remaining Issues

- Establishing business structures that will not be affected by the external environment
 - **Inorganic chemicals:** Impacts from trade friction between the U.S. and China (FY2019) and from the COVID-19 pandemic (FY2020)
 - **Organic chemicals:** Impacts from abnormal weather in Europe and the U.S. (FY2019)
- Ensuring implementation of both increased added value and reduced costs
- Increasing resilience while minimizing the impact of external risks through business continuity planning (BCP) and risk management
- Recouping investments, including capital investments, quickly

Chemical Technologies and our “3 Strengths”

We ISK Group have continued to contribute to the advancement of society by providing the chemical technologies developed since our foundation, a core competence, and by leveraging our ”3 strengths”, quality, technological development capability, and management capability. With the world entering a new phase of reform in economy, society and the environment, we will adapt to it and pursue further growth under “Vision 2030”.

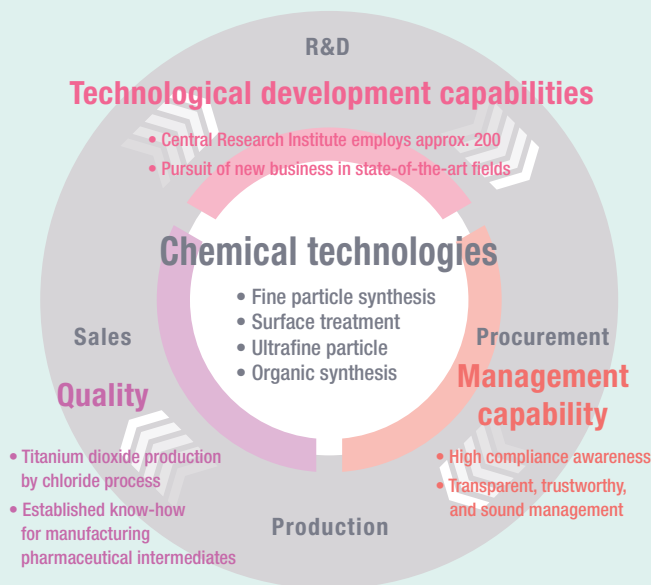
Megatrends Input

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

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- Financial capital
- Manufacturing capital
- Intellectual capital
- Human capital
- Social and relationship capital
- Natural capital

Value Creating Core



Outcome

Economic value

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Social value

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Main SDGs related to ISK Group business



Vision 2030







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Governance

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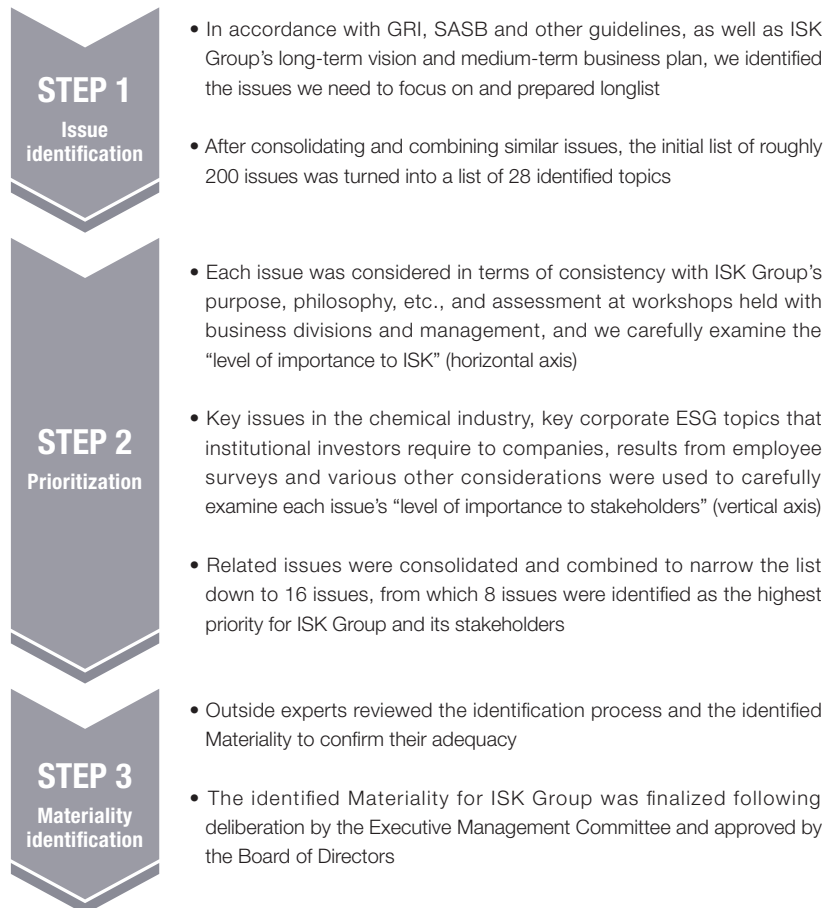
Promote Value Creation through Continuous Input

ISK Group's definitions of the inputs and outcomes of the "six capitals" of value creation are given below. These reflect our Materiality which first we have identified, and through ongoing enhancement of inputs we will realize "Vision 2030".

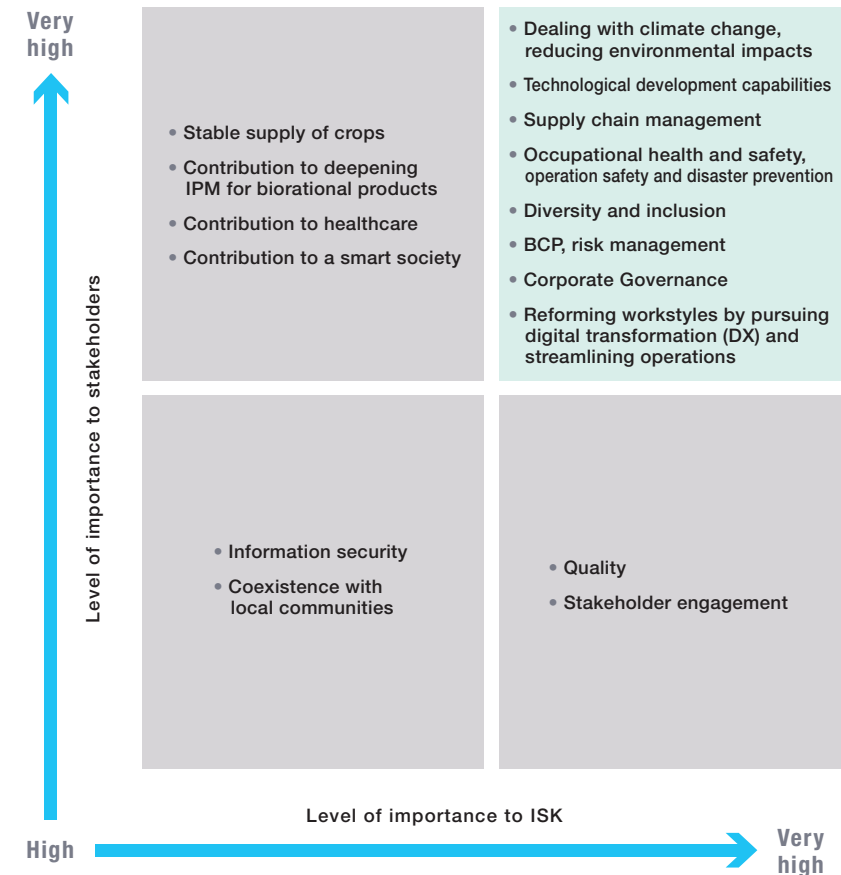
Financial Capital	Input	Reason for Input	Role in Value Creation	Outcome
	<ul style="list-style-type: none"> Total assets (FY2020 consolidated) 180 billion yen Interest-bearing debt (end of FY2020) 60.1 billion yen Shareholders' equity (FY2020 consolidated) 81.1 billion yen 	Total assets from which revenue 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. These were also incorporated among the management targets for our medium-term business plan, "Vision 2030 Stage I".	<ul style="list-style-type: none"> By efficiently utilizing total assets, we will secure market share and thereby increase consolidated net sales. 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"> Top market share in domestic sales of titanium dioxide Forecast performance for FY2021 <ul style="list-style-type: none"> Consolidated net sales 103 billion yen ROE 4.4 %
Manufacturing Capital				
	<ul style="list-style-type: none"> Capital investment (FY2020 consolidated) 6.3 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 	In terms of manufacturing, the key inputs are production capacity, which underpins our top share of domestic titanium dioxide market, and capital investment sufficient to maintain and expand the production capacity. In addition, we have incorporated manufacturing expertise capable of operating the physical infrastructure into manufacturing capital.	<ul style="list-style-type: none"> 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. In April 2021, we installed new production line for highly functional products in anticipation of growing demand. 	<ul style="list-style-type: none"> Titanium dioxide production facility utilization rate (FY2020 consolidated) 64.9 % [Functional materials production enhancement] Work completed in April 2021 at Yokkaichi Plant (electro-conductive materials and high-purity titanium dioxide)
Intellectual Capital				
	<ul style="list-style-type: none"> R&D expenses (FY2020 consolidated) 8.6 billion yen (Inorganic chemicals 1.5 billion yen) (Organic chemicals 7.5 billion yen) 	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 (Kusatsu, Shiga Prefecture) and Yokkaichi Plant account for the majority of R&D expenses, while some are used for the registration of agrochemicals in various countries.	<ul style="list-style-type: none"> 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. Further expand registration activities worldwide, and utilize agrochemicals registration as intellectual property. 	<ul style="list-style-type: none"> Number of patents held (end of FY2020 non-consolidated) 2,593 (Japan 296) (Overseas 2,297)
Human Capital				
	<ul style="list-style-type: none"> Employees (FY2020 consolidated) 1,743 people New graduate hires (FY2020 non-consolidated) 29 men, 10 women Percentage of R&D employees (FY2020 non-consolidated) 20.9 % 	Securing and making the most of human resources is one of key priorities of ISK Group. Particular effort is made to secure R&D professionals so that they consist of more than 20% of all employees (non-consolidated). We also provide career design seminar to employees at all ISK locations in order to support their career development.	<ul style="list-style-type: none"> We revamped our human resources system in FY2020. 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. We are also working to achieve greater diversity and thereby make the most of human resources representing different backgrounds. 	<ul style="list-style-type: none"> Participants in position-level-specific training (FY2020 non-consolidated) 126 people Employees who took childcare leave (FY2020 non-consolidated) 22 people Paid leave usage rate (FY2020 non-consolidated) 73.6 % Percentage of female managers (FY2020 non-consolidated) 6.7 % Severity rate (FY2020 consolidated) 0.07
Social and Relationship Capital				
	Registered trademarks (end of FY2020) 1,837 cases	The main input is the number of our registered trademarks, which has been a key component for various kinds of product lineups that have been used by many long-term and valued customers of ISK Group. In addition, as a chemical manufacturer, we also strive to contribute to local communities around our production sites.	<ul style="list-style-type: none"> Through a combination of meticulous technical service and global, localized marketing activities, we provide customers with solutions for their problems and continue to earn their trust. With regard to our initiatives for the health and safety, process safety and disaster prevention as a chemical manufacturer, we will keep close communications with local communities in order to maintain their trust. We work to burnish our brand power as a "strong and responsible chemical company". 	Brand power as a strong and responsible chemical company
Natural Capital				
	<ul style="list-style-type: none"> Yokkaichi Plant FY2020 Energy (heavy fuel oil equivalent) 130,000 kiloliters Industrial water 14 million m³ Seawater 10 million m³ Titanium ore 110,000 tons 	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.	<ul style="list-style-type: none"> By reducing coal-fired boiler CO₂ emissions as part of our efforts to mitigate global warming, we look forward to preserving a healthy living environment. Through more thorough chemical substances management, we are reducing the amount, and amount transferred of, our emissions, with the goal of reducing our impact on humans and the ecosystem to as close to zero as possible. 	<ul style="list-style-type: none"> Yokkaichi Plant FY2020 CO₂ emissions 370,000 tons Wastewater emissions into public water areas 24 million m³ Industrial waste (inorganic sludge) 81,000 tons PRTR-listed substances 1,300 tons

Materiality Identification Process

In formulating our “Vision 2030 Stage I”; medium-term business plan, ISK Group identified priority issues (Materiality) that would impact corporate value in the medium-to-long term. Based on this Materiality, we are implementing measures that contribute to the sustainable development of society and ISK Group, as well as formulating relevant, non-financial objectives.



Issue Importance Evaluation



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 needs
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

Message from an Outside Expert



Executive Fellow, Research Institute of Capital Formation, Development Bank of Japan Inc.

Mr. Keisuke Takegahara

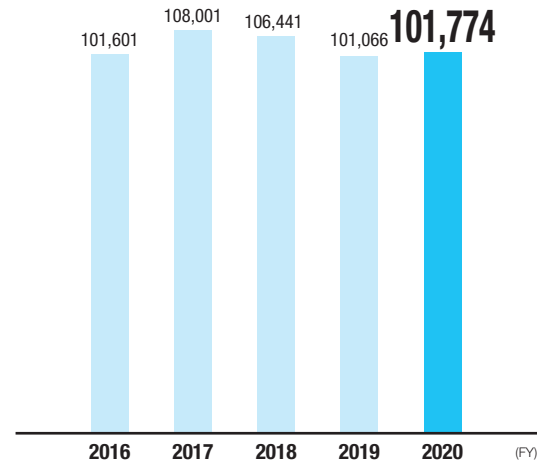
Special mention should be made of ISK Group's thorough preparation for, and meticulous execution of, the identification process, including its use of various reference guidelines, its selection of a wide range of benchmark candidates from within and outside Japan, and its in-depth deliberation spanning a broad range of employees. This process shows the issue recognition of Stage I (2021–23) of Vision 2030, and it also establishes an excellent foundation that will hopefully be used for progressively dynamic reviews.

I expect that ISK Group can capitalize on this in order to further distinguish and differentiate itself. Ideally, in light of the Group's purpose and long-term vision, I look forward to stronger connection between Materiality and the story that ISK grows while contributing to society through the power of chemistry. With regard to climate change, in addition to the approach from the standpoint of social issues, such as capitalizing on the opportunities that the accelerating electrification, and the roles of organic chemicals business in adaptation-related domains, an effective strategy might be to use the "three strengths supporting value creation", i.e., quality, technological development capability, and management capability, as a starting point. Another idea would be to secure the constituent elements of ISK Group's management capability such as risk management and BCP, as a firm foundation of strength, and they distinct from other factors to be strengthened by the Group over the years. In this latter case, the emphasis would be on bolstering intangible assets, such as intellectual capital and human capital, which support the Group's core competencies; technological development capability and quality. Given ISK's diversity of strengths and potential, I look forward to seeing its future growth and expansion.

Financial Highlights (Consolidated)

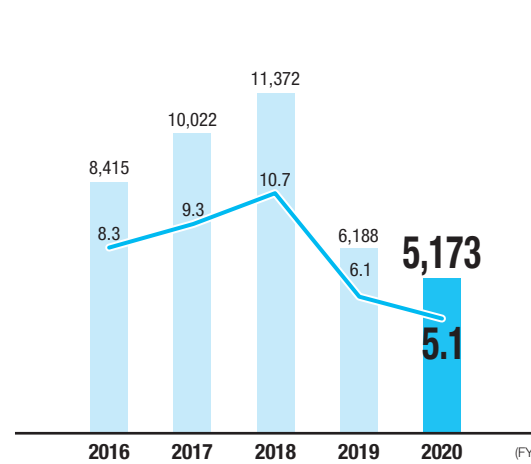
Net Sales

Million yen



Operating Income

Million yen

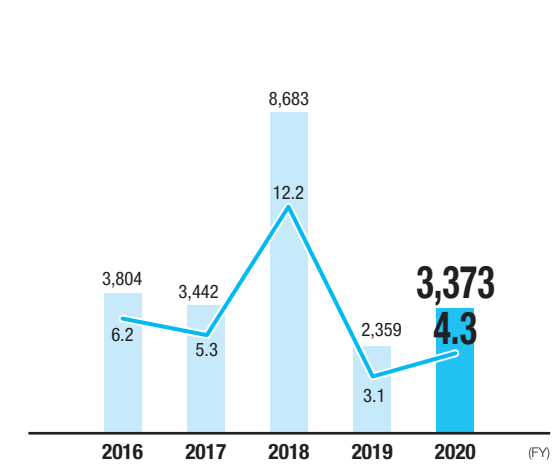


Operating Margin

%

Net Income Attributable to Owners of Parent

Million yen



ROE

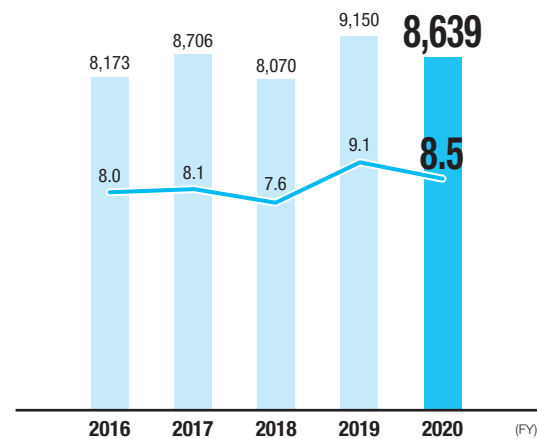
%

R&D Expenses

Million yen

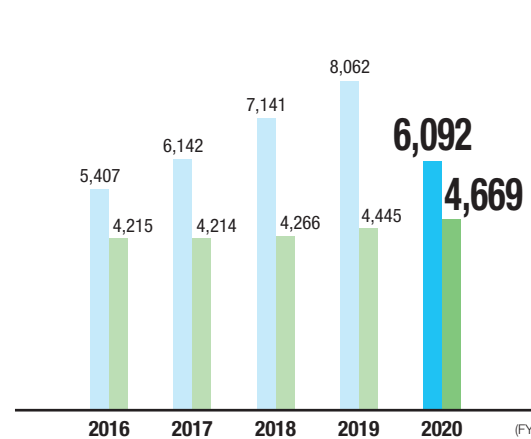
Ratio of R&D Expenses to Net Sales

%



Capital investment

Million yen

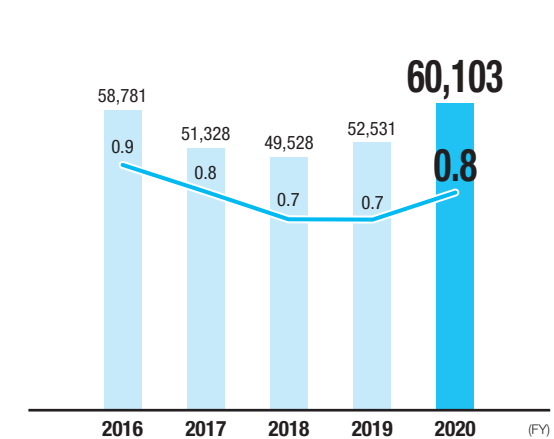


Depreciation expense

Million yen

Interest-Bearing Debt

Million yen



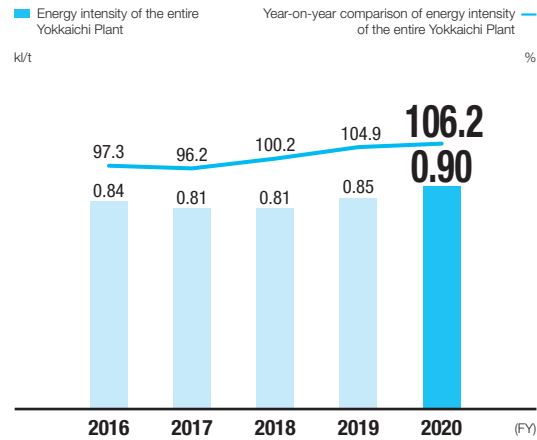
D/E Ratio

%

Non-Financial Highlights (Non-Consolidated)

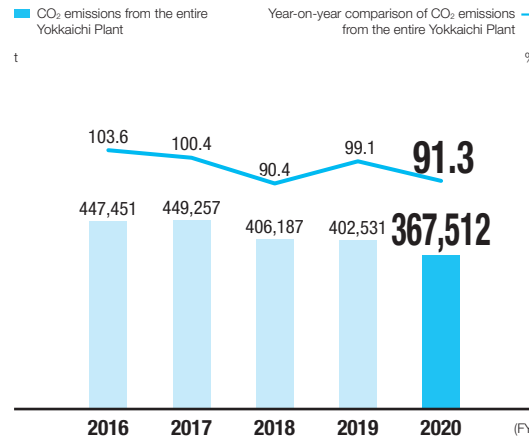
Environment

Energy Intensity



Note: Includes Yokkaichi Energy Service Corporation, which was merged in October 2018.

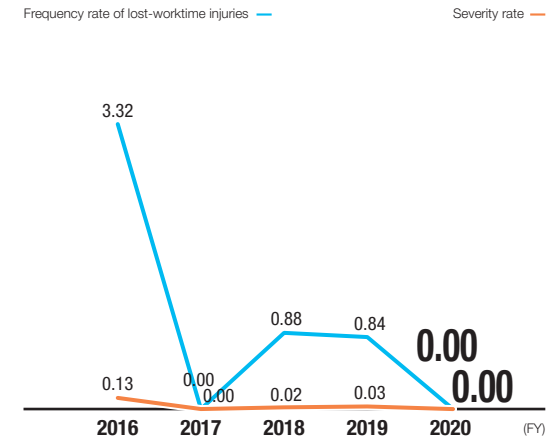
CO₂ Emissions



Note: Includes Yokkaichi Energy Service Corporation, which was merged in October 2018.

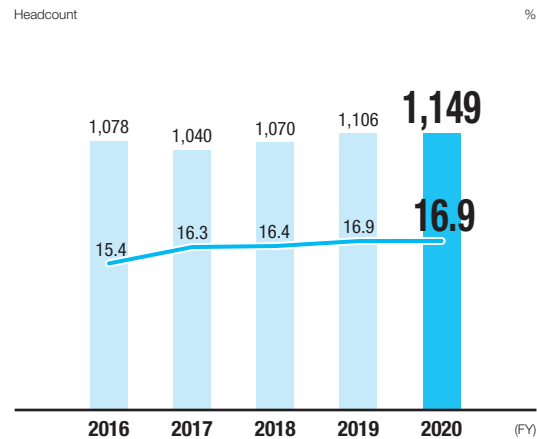
Social

Occupational Accidents



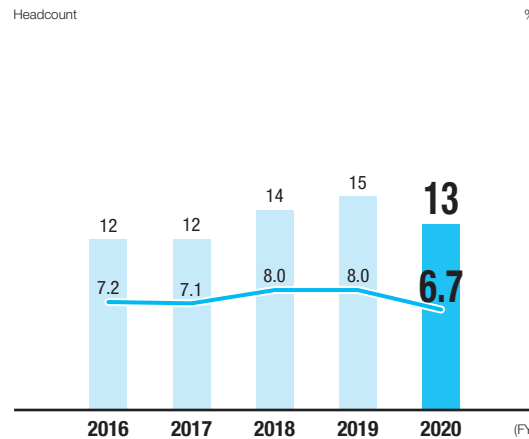
Social

Number of Employees



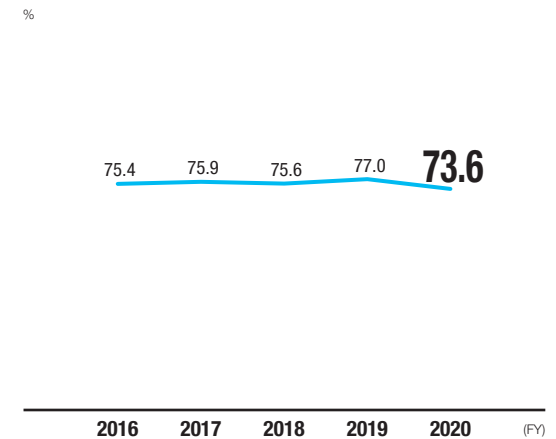
Female employee ratio

Number of Female Managers



Female Manager ratio

Paid leave acquisition rate





Director of Finance & Accounting Headquarters

Yasunobu Kawazoe

Fiscal 2020 Results and Prospects for the First Half of Fiscal 2021

Need Attention to Economic Fluctuations amidst a Continuing Recovery

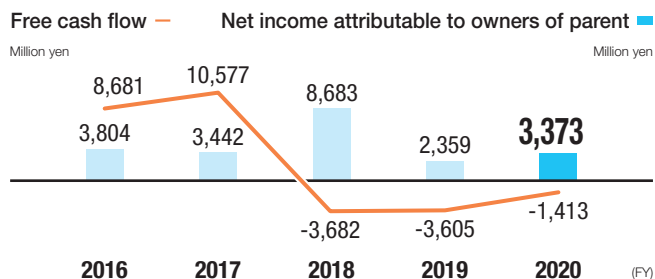
In fiscal 2020 our business performance repeated ups and downs due to the COVID-19 pandemic. As a result of the stagnant performance of the inorganic chemicals business during the first half of the year, performance forecasts announced in May 2020 were revised downward six months later, while the rapid recovery in the titanium dioxide market resulted in an upward revision in February 2021. In September, the automotive industry was on the rebound, but as of November we did not foresee any recovery in business because it was not until paint manufacturers digested their stock that we began receiving orders. We were relieved that we were able to achieve satisfactory results for the full year.

As for our organic chemicals business, the performance was affected by no major fluctuations due to no impact from COVID-19 and weather conditions.

In fiscal 2021 so far the recovery has been ongoing, and in August 2021 we revised our performance forecast for the first half of the year upward. Production activities in China has been recovering since the start of the year, with the strong demand for titanium dioxide, which has driven the price up three times already overseas, and we also could increase price even within the Japanese market, resulting in increased shipments and sales turnover for our inorganic chemicals. However, the Chinese economy is showing signs of slowdown, and we need to keep a close watch on trend of local titanium dioxide manufacturers because they look ready to divert more of their excess inventory to exports.

For organic chemicals business, affiliates are keen to secure their inventories, given that advance shipments of agrochemicals continue to be made worldwide. These advance shipments are causing no change in our annual plan.

• Free Cash Flow Trend



Direction of Financial Management

Ensuring Greater Investment Capacity by reducing Interest-Bearing Debt

Our inorganic chemicals business tends to be affected by the economy. The problem areas are factory utilization rate and inventory levels. With factory utilization rate, everyone is now aware that a drop in this rate leads directly to a drop in profits. Given the recent painful lessons of fiscal 2020, when the market was severely disrupted by the pandemic, we have a variety of measures to be implemented at the slightest signs of disruption.

On the other hand, with regard to inventory, because it is difficult to understand 'viscerally,' we have put in place mechanisms to facilitate awareness and control of it. As a result, while we continue to work towards a greater margin, we expect that we will turn the fiscal 2020 1.4-billion-yen loss in free cash flow to a 1.4-billion-yen surplus in fiscal 2021.

We will use this cash to continue reducing our interest-bearing debt. This is to ensure we have the capacity to respond to any new capital investment needs arising in around fiscal 2023 that is the final year of the Vision 2030 Stage I medium-term business plan.

We made investments aimed at boosting production capacity: in fiscal 2019 in our subsidiary Fuji Titanium Industry Co., Ltd., and in fiscal 2020 in ISK. Currently, our level of annual capital investment is around 8 billion yen. Nearly all of this is replacement investment. However, there are any number of ideas for new investments which, if acted upon, would instantaneously use up a large amount of cash. That is all the more reason why we must improve profitability over the next three years during which no large-scale investments are planned in order to build up a leaner corporate structure. In inorganic chemicals, our focus is on finding ways of increasing the percentage of sales which functional materials account for, given how little they are impacted by economic fluctuations. For organic chemicals, we need to thoroughly reduce our manufacturing costs. If we can achieve substantive reforms, this would enable us to shrink our interest-bearing debt by 15 to 20 billion yen over three years, thereby freeing up the amount needed to make our next large-scale investment. Also, one of the targets for the final year (fiscal 2023) of Stage I is operating income of 16.6 billion yen, and at that level of operating income, we could increase the amount of our investment further.

We must strengthen our earning capacity. From a finance perspective, I believe that this is the key point for Stage I. The degree to which we can improve our fundamental earning capacity over these three years will determine the direction of Stage II and Stage III.

Financing

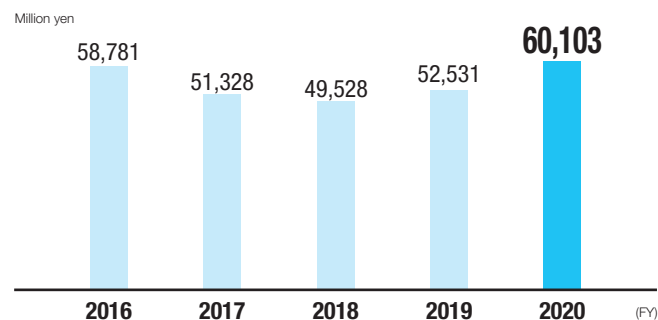
Commitment Line Cancellation

When investment capital comes primarily from interest-bearing debt, it is essential to maintain a high credit rating in order to receive favorable financing terms. At the earning capacity that is being sought in Stage I, a rating of BBB+ is likely possible. Going from there to a single A rating would be quite hard without net sales of at least 150 billion yen or quite significant earning capacity. Although it may be difficult to achieve this in the near future, I believe that an A rating is achievable in 10 or so years' time.

Reaching an A rating opens up a broader range of financing options. For example, it paves the way for direct financing via corporate bonds, where the amount of investment can be determined while in consultation with the market. Meanwhile, indirect financing remains a flexible and essential procurement method. Staying in constant communication with financial institutions allows us to maintain relationships that can be capitalized upon for borrowing in times of need.

In order to handle any economic fluctuations stemming from the pandemic, we had asked financial institutions to set a two-year, 10-billion-yen commitment line, but, because of the clear recovery in ISK's performance, this agreement was canceled in September 2021.

• Interest-bearing Debt Balance



Communication with investors and Dividend Policy

Ensuring Continued, Stable Dividends for Shareholders

We endeavor to carefully explain our approach to earning capacity expansion and investment, to the satisfaction of investors and analysts. Some have pointed out the high accuracy of Stage I, and commented how it differs from our past medium-term business plans. We will continue to carefully communicate information whenever possible. Recently, in talking with institutional investors and shareholders, I have been struck by their awareness that ESG and SDGs-focused management is not a temporary fad but, rather, a fundamental corporate issue. The other day I met with a representative of a proxy advisory firm, and the topic of business performance did not come up once. The entire conversation revolved around our response to the revised Corporate Governance Code and our creation of an integrated report. ESG and SDGs have permeated society to the point that they are common knowledge, and any company that deviates from them in this day and age will find itself left out of the market. I brace myself for recognizing needs to consciously communicate this fact throughout the company.

Finally, I would like to talk about dividends. The total dividend for fiscal 2020 was 18 yen per share, which, when commemorative dividends are excluded, was six yen higher than the total dividend for fiscal 2019. Although there were various opinions within ISK, we have settled on a dividend amount that strikes a balance between total dividend allocation and internal reserves. As discussed in the previous integrated report, ISK Group's policy is to pursue stable dividends on an ongoing basis. Given the fact that the inorganic chemicals business sees major performance fluctuations, I cannot yet definitively say what our dividend payout ratio will be, but 18 yen is the minimum line that we are holding firm at.

Inorganic Chemicals Business



Results for Fiscal 2020 and Trends for Fiscal 2021

Favorable Performance for Electronic Component Materials

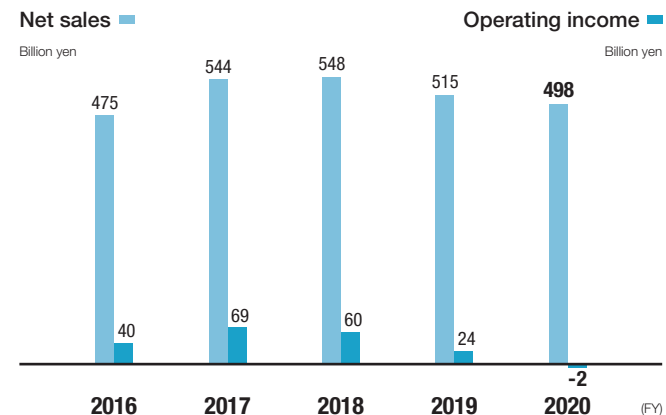
Just before the start of fiscal 2020, the impact of the COVID-19 pandemic caused production facilities throughout the world to suspend operations, where titanium dioxide, our main product, is used as its material, and our sales of the product dropped by 40 to 50 % temporarily. We were concerned about uncertainty in the market trend even in the latter half of the year, but the demand started to recover from around November 2020 and the result in the latter half was on par with that of fiscal 2019.

Moving into fiscal 2021, there has been a continued recovery in demand for titanium dioxide stemming from a recovery in automotive and construction-related business. However, the entire manufacturing industry continues to be hampered by the shortage of semiconductors and additives, creating uncertainty about the direction ahead.

Despite favorable sales of electronic component materials due to increasing demand for home appliances, mobile phones, and self-driving vehicles, the semiconductor supply shortage is also a cause for concern. Sales of these electronic component materials account for just under 10% in the entire net sales, so we will continue working for its further growth.

With regard to electro-conductive materials, we have doubled our production capacity last

• Revenue Trends for Inorganic Chemicals Business



year by installing a new production facility. We are working to expand our sales to match this capacity, but COVID-19 has made it hard to pursue sales activities overseas and thus hampered our developing new customers.

Vision 2030 Stage I

Aiming for 40% of Sales to Come from Highly Functional and High-Value-Added Products

The overarching mission of the Inorganic Chemicals Sales & Marketing Headquarters in the Vision 2030 Stage I medium-term business plan is to achieve sales figures by accelerating our existing strategies to pursue quality with unique products. With an objective to grow the revenue at 5-billion-yen worth in fiscal 2030 for each material or category of highly functional and high-value-added products such as electronic component materials and electro-conductive materials, we will create a foothold for this growth while clarifying targets by material and growth strategies.

Specifically, this means not simply bringing materials to customers and saying, "Please use this," but, rather, coming up with a recipe for customers, in which their needs and demand are incorporated. In the case of construction-related paints, one approach is to offer customers a product that combines titanium dioxide and a matting agent

into a single material, thereby alleviating them of the conventional hassle of having to combine the two themselves. Because those kinds of materials are different from conventional items, customers might not understand its significance without solid promotion on how to use them. Hence, we will pursue a marketing strategy that highlights these points in its appeal.

Also, we will employ the same approach to overseas market development, which has been an issue since the previous medium-term business plan. We will send young engineers to the US and capitalize on the strength that comes from the three combined elements: the recipes, human resources and materials in order to make up for setbacks to the previous business plan. Currently, highly functional and high-value-added products account for roughly 30% of net sales of titanium dioxide. Through the approach described here, we aim to increase this to 40% by the final year of Stage I.

We also focus on new product development as a driver of future growth. Such products include copper nanoparticles capable of low-temperature sintering and a highly transparent high-refractive-index material.

Copper nanoparticles, in addition to its excellent electrical conductivity, are able to be sintered at a low temperature of 150°C, making them suitable for such applications as wiring atop plastic substrates. Meanwhile, our high-refractive-index material is a next-generation material having a refractive index of 1.8 or higher and the ability to maintain its transparency while offering performance that far exceeds conventional zirconia. We anticipate that it will find use in image sensors and other next-generation optical devices.

We are actively working on IR releases to attract media attention for these promising new products. Our aim is to use media promotions to attract inquiries from a wide range of fields which will, in turn, develop into actual demand. Even if we think a product is good, it doesn't necessarily mean we can sell it. We will be continually monitoring how the market responds at every step along the way.

Also, given customers' increasing emphasis on safety and the environment, it is important that we use raw materials that reflect consideration for both.

However, there may be situations where those raw materials will drive up costs and limit our choice. That said, because ISK Group's purchasing volume is not as large as other major companies in the same industry, we can capitalize on our "smallness" to make us nimbler and more flexible, such as by consolidating small raw material sources and finding partners for joint procurement.

Looking Towards the Future

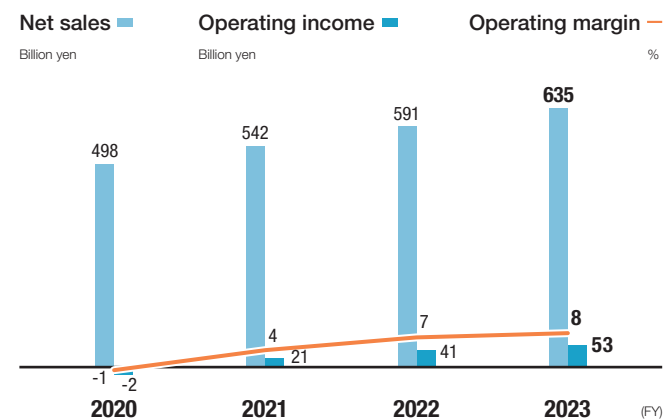
The Top Priority for This Decade: Identifying Our Next Business Pillar

Expanding our top line is the first priority for Stage II and Stage III. General-purpose titanium dioxide is a bulk product for which business cannot be expected to grow further. We are working to achieve solid growth in functional materials business to build up its sales towards a certain target such as 5 or 10 billion yen for each category. With these efforts, we must roughly double the current net sales in this business.

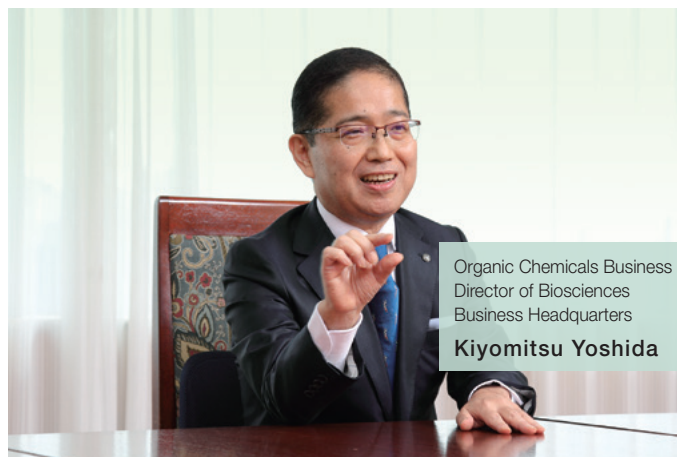
The point is what comes after the completion of Vision 2030. Things will get difficult if we simply take the current path further. I believe the top priority for our inorganic chemicals business within this decade is to identify our next pillar and get it ready. Another key priority would certainly be finding new applications that capitalize on titanium dioxide's functionality, such as its high refractive index and heat shielding capacity. We would like to commit 10 years to this search.

Another important issue to address is to reduce CO₂ emissions from the titanium dioxide manufacturing process. A large amount of electricity and steam is required for manufacturing, and the current energy source for this is coal. How can we change that? We have just started to investigate this issue. I feel that, if we can leverage ISK Group's technological strengths to achieve a breakthrough with this issue, it would lead to the establishment of a new foundation; hence, ISK Group must start doing whatever it can to facilitate this.

Revenue Planning for Inorganic Chemicals Business



Organic Chemicals Business



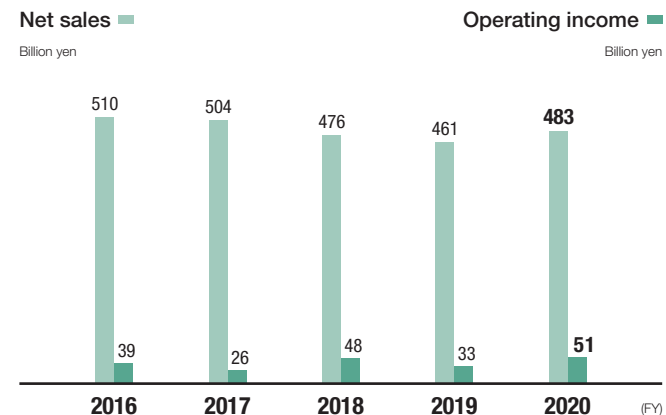
Results for Fiscal 2020 and Trends for Fiscal 2021

Concerns about Availability Move Up Anticipated Second-Half Sales to the First Half of the Year

Net sales and profit of the organic chemicals business for fiscal 2020 were just as predicted. In Japan, although sales of our flagship nematocide declined, sales of other chemicals increased, providing net sales higher than the same period of the previous year. Overseas, as well, a variety of positive factors, such as booming grain production in the Americas, cancellation of competitor product registration in Europe, and growing sales of insecticides in Asia, contributed to robust business performance. In general, sales of agrochemicals in the northern hemisphere are mostly decided between September and October of the previous year. This is the period by which farmers have decided on their planting and cultivation plans for the next year, and, barring some major change in the weather or other factors, they will purchase their agrochemicals according to this plan.

In fiscal 2021, concern over delayed availability of agrochemicals due to the COVID-19 pandemic appears to have, similar to the previous year, motivated farmers and distributors to actively stock up, resulting in anticipated sales for the second half of the fiscal year again moving up into the first half. In the Americas, because of the strong performance of grain production, Brazil, where the cultivation season starts in October,

Revenue Trends for Organic Chemicals Business



is able to expand its planted acreage, leading to sales anticipated to be above the initial planning forecast. Also, in the US, we are expecting major growth thanks to finally having multiple new herbicides on the market.

With regard to COVID-19, we have felt its effects on shipping. Port congestion and container ships stuck waiting offshore continue to delay international marine transport. We are doing our best to minimize opportunity loss due to delayed delivery of raw materials and products.

Vision 2030 Stage I

Increasing Global Market Share by Manufacturing and Procuring Agrochemical Ingredients at the Lowest Cost in the World

Within the Vision 2030 Stage I medium-term business plan, a major focus of the Biosciences Business Headquarters is value chain creation. This is envisioned as inspection and enhancement of key agrochemicals-specific activities (functions), such as raw materials procurement, manufacturing, sales, development, and registration, in order to generate greater value provided to customers in a timely manner. Bringing an agrochemical to market generally takes a long time, with 10 years not being uncommon. Our business headquarters functions operate together as one with a reaffirmed

commitment to value creation as we embark on a new medium-term business plan. We seek to expand overseas sales, particularly outside Europe where we already have a strong market presence, with our focus being mainly on expanding sales of existing fluazinam and flonicamid agrochemicals in Brazil and the US.

In order to secure a competitive advantage for the future, one of our key objectives for Stage I is to increase our global market share by manufacturing and procuring agrochemical ingredients at the lowest cost in the world. We will need to pursue a comprehensive approach that includes procuring low-cost raw materials, manufacturing at optimal locations, and purchasing from generic agrochemical manufacturers if we are to succeed against increasingly intense competition. With regard to manufacturing location, the once-strong emphasis on China has shifted in recent years as a result of geopolitical concerns, pivoting in due course towards India.

In 2015, ISK established a subsidiary in India, which has thus far focused on agrochemical development and registration and will, from 2022, progressively handle new agrochemical registration and market roll-out. We are also continuing to make progress on our fluorine organic intermediate manufacturing project, which will begin operation in India in early 2022. Procurement for this project advantageously combines low-cost, ISK technology-driven manufacturing of intermediates with the option to buy from other companies. The start of manufacturing has been delayed a year due to the COVID-19 pandemic, but the impact of this on the overall plan is limited.

Another Stage I initiative that we are pursuing is sales channel diversification. We are implementing a variety of strategic measures, including using the sales strength of multinational companies and major generic agrochemical manufacturers to expand our sales reach in regions where we are highly dependent on specific distributors, and finding new distributors in regions where we are either not established or lagging. We also anticipate sales growth coming from the introduction of new herbicides and insecticides onto the markets of Americas and India from early in Stage I.

Through these initiatives aimed at achieving the Stage I targets of the Vision 2030 goals, we will achieve net sales of 58.7 billion yen and operating income of 11.2 billion yen.

Looking Towards the Future

Getting Off to a Flying Start on the New Chapter That Begins with Our 101st Anniversary

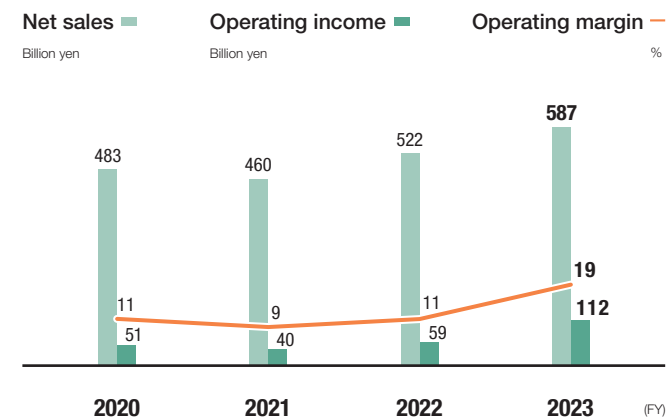
Even from Stage II onward, agrochemicals will remain the core of our organic chemicals business. Our aim is to establish a growth trend during Stage I, which we will build

upon through active investment in expanding production technology development hubs and overseas sales and production sites. This will lead to production technology innovation and refinement accompanied by a more robust business foundation supporting even greater business expansion and development in Stage II and Stage III. We will also explore M&A and business partnership opportunities.

In 10 years' time, the Japanese agrochemicals market will be two-thirds of its current size, and signs of industry restructuring are becoming increasingly apparent. In order to maintain and develop ISK's agrochemicals business in Japan, we will need to be open to restructuring and, if possible, be a proactive leader in this regard.

We are also hopeful about the growth of our animal health products. We are already selling BRENDA™, the world's first anti-pancreatitis drug for dogs, on the Japanese market. Following approval by the United States' FDA (Food and Drug Administration), we expect to release it on the US market some time in fiscal 2022 under the brand name Panoquell®. This will be the first animal health product launched overseas that was created and developed by a Japanese manufacturer. We are also planning to acquire EMA (European Medicines Agency) approval around 2025. By bringing this product to the European and US markets, where the number of pet dogs is at least 10 times as many as in Japan, we seek to greatly expand our revenue from 2022 onward. Our company's 101st anniversary represents the beginning of a new chapter, and the organic chemicals business is set to get off to a flying start.

• Revenue Planning for Organic Chemicals Business

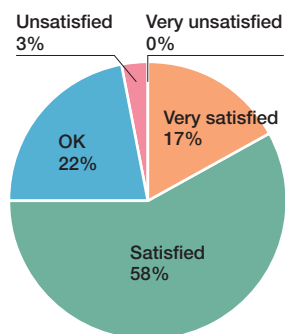


Ensuring We Continue to Earn Society's Trust

It is important that ISK Group continue to earn society's trust so that it can grow in a sustained manner. We will help realize a sustainable society through our business activities while building trust-based relationships with society by communicating with stakeholders and listening sincerely to what they have to say.

Customers

We started distribution of BRENDA™, an anti-inflammatory drug for canine acute pancreatitis, supported by our own field force in April 2021. ISK's sales representatives visit animal hospitals throughout Japan with our partner wholesalers both to provide technical information and to get feedback on cases treated with BRENDA™ from veterinary practitioners, ensuring strong communication between ISK and our veterinary customers. Practitioners' evaluation of our technical service activity is very positive, with warm words such as "That's what I'd like to know" and "I appreciate this useful information". Some veterinarians have stated that the use of BRENDA™ has enabled them to save the lives of dogs that would not have recovered using previous treatments. Communicating directly with veterinarians makes it possible for dog patients to survive this potentially life-threatening condition. To support the launch of BRENDA™ and the new ISK field force, we held a seminar, which was hosted online due to the COVID-19 pandemic, with veterinary practitioners from across Japan. In a questionnaire collected after that seminar, participants expressed favorable feedback. Our sales team has also been communicating and sharing useful information with all stakeholders in the veterinary hospital; not only veterinary practitioners but also veterinary technicians and veterinary receptionists through interactive, onsite seminars at animal hospitals. Most recently, on an online veterinary practitioners community site, we introduced BRENDA™ and collected reviews from practitioners. We received about 500 responses during the three weeks since the beginning of the review collection, indicating growing interest in BRENDA™.



Reference: Results of the questionnaire on the seminar commemorating the beginning of distribution of BRENDA™ through ISK's own channel



Brochure about BRENDA™, an anti-inflammatory drug for canine acute pancreatitis.

Shareholders and Investors

We believe that promoting constructive dialog with shareholders and investors helps facilitate the company's sustained growth and increase medium- and long-term corporate value. We've put in place structures to promote such dialog in accordance with the following policies:

1. We've created 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 an officer in charge of public relations to oversee issues related to constructive dialog with shareholders and investors.
3. We hold two IR briefings each year as a means of dialog with shareholders and investors, where our president and the officer in charge of public relations brief the stakeholders. We also work to enhance our information disclosure by making briefing notes available on our website. Additionally, we actively accommodate requests from investors and analysts for phone interviews and other access to company executives.
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.
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.



2021 ordinary general meeting of shareholders

Supply Chain

ISK Group Code of Conduct includes the following statement: "Together with our suppliers and subcontractors, we will engage in socially responsible procurement activities." In keeping with that priority, we carry out purchasing and procurement activities in a way that takes CSR into account, for example by checking to be sure we do not purchase conflict minerals, while securing cooperation from suppliers.

We make only limited use of tantalum, tin, tungsten, and gold ("3TG"), which are typically recognized as conflict minerals, in the manufacture of our products. Only tin compounds, which we use as a raw material in electroconductive materials and other substances, falls under the definition.

We deal with three suppliers of tin compounds, and we require each to submit a report using the Conflict Minerals Reporting Template, a global standard for conflict mineral investigations developed by the Responsible Minerals Initiative. In this way, we verify that the refineries producing the tin purchased by our tin compound suppliers have been certified as conflict-free by a third party. All three suppliers purchase tin from certified refineries, and our investigations have unearthed no issues to date.

Communication with the Local Community

Yokkaichi Plant

At the Yokkaichi Plant, we place emphasis on informing and understanding local residents about our safety, disaster prevention, and environmental protection activities.

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, such as participating in the annual Suzuka River clean-up activities (Suzuka River Clean Operation), which are carried out in cooperation with local communities and companies.

In fiscal 2020, these activities had to be canceled due to the impact of COVID-19 pandemic.



Cleaning up the Suzuka River,
March 2019



Plant tour for students from local junior high school,
July 2019

Central Research Institute

Although the Central Research Institute delayed the volunteer clean-up that had been scheduled for May 2020 due to the pandemic, a rescheduled event the following November attracted around 50 volunteers, who participated without incident while exercising care to prevent infection, for example by avoiding the 3Cs of closed spaces, crowded places, and close contact. Nonetheless, the facility had to cancel a planned tour for high-school students in fiscal 2020 due to the pandemic.



Volunteer clean-up

Making the Most of ISK Group's Best Qualities in consideration of Accommodating Changes in Society

Three of ISK's nine directors are Outside Directors. They offer advice to the Board based on their respective knowledge and experience while serving on committees like the Personnel Committee. We are brought together all of ISK's Outside Directors to talk about the change in executive leadership and other governance topics.



Tatsuo Hanazawa

Mr. Hanazawa, who originally worked for the Ministry of Agriculture and Forestry (the present-day Ministry of Agriculture, Forestry and Fisheries), has served as an officer at a number of organizations, including an independent administrative agency and a foundation. He brings both domestic and overseas expertise in agricultural policy to the position. He also chairs ISK's Compensation Committee.

Hiroshi Katsumata

Mr. Katsumata, who started his career at the Ministry of International Trade and Industry (currently Ministry of Economy, Trade and Industry), has served as a director and executive officer at private sector companies including Taiyo Nippon Sanso Corporation. He brings expertise in both government administration and private sector business to the position. He also chairs ISK's Personnel Committee.

Satoshi Ando

Mr. Ando is an attorney and also serves as an Outside Director at Toho Co., Ltd. He brings extensive expertise in corporate law to the position.

ISK's New President Leadership

Unanimous Agreement in the Personnel Committee on a Candidate Who Naturally Became the Focus of Attention

Katsumata (K): It was three or four years ago that former President (and current Chairman) Mr. Kenichi Tanaka remarked that it would soon be time to think about his successor. A number of names were subsequently floated, but I remember it was around the fall of 2020 that Mr. Hideo Takahashi began attracting attention.

As a result, the Personnel Committee unanimously selected him as new Executive Director and President. That's because he's able to bring the company's employees together in the turbulent times, and because he has an excellent overall understanding of ISK Group.

Hanazawa (H): Mr. Takahashi became a Director at ISK at the same time I did, in June

2019, and I've had many opportunities to talk with him since I was seated next to him at Board meetings. I may sound boastful, but I've watched him grow as part of the top management. His perspective changed from "Director of Yokkaichi Plant" to a position, which he expanded his vision to see the whole company. I felt that if he continued to grow, he would be an excellent leader as he actively spoke out, even in areas other than his field of specialization.

Ando (A): At the Personnel Committee, we had a free-wheeling discussion about who would be an appropriate choice to lead the company, including people who were not officers. In my view, Mr. Takahashi was chosen due to a comprehensive evaluation; the result as Director of Yokkaichi Plant, his popularity, and his ability to exercise excellent judgment in a pinch. Former President Mr. Tanaka did his utmost effort to rebuild ISK Group. I carefully monitored candidates' speech and behavior from the viewpoint of who was the suitable leader as we transition to be "aggressive" in business. As we proceeded with those discussions, attention came to focus on Mr. Takahashi.

K: ISK keeps “evaluation sheets” that record recent achievements of candidates, their approaches, and assessments by their supervisors. Drawing on those materials, we carried out our discussions with better understanding to the candidates. Technological capability will be the key going forward in an era of stiff competition. As Mr. Takahashi has a development background, he will be able to evaluate technologies appropriately. Of all the candidates, he won the most praise in this area.

H: Everyone involved will find President Mr. Takahashi a convincing choice, and they are willing to follow his lead.

A: One of the roles and responsibilities of the Board of Directors as set forth in the Corporate Governance Code is to “cultivate successors”. From that perspective, one question that remains to be addressed is how well we’ve fostered human resources who take care of the entire ISK Group, not just individual business unit. I’d like to see a greater awareness of the need to foster the development of people who can serve as overall leaders.

Expectations towards the New Administration

Accelerating the Board’s Ability to Act by Reviewing Agenda-Setting Standards

H: I fully understand the phrase “transforming lives through the power of chemistry” in Vision 2030. However, we ISK Group sometimes lack a sense of speed. To put in a good way, we are cautious, but to put in a bad way, we are conservative. As we work to realize Vision 2030 going forward, we’ll need to act without delay, even if that involves taking risks.

K: If we have good technologies, it would be useless if we miss the opportunity for the commercialization. The new administration led by President Mr. Takahashi is required to build structures which quickly accommodate global market expectations.

H: I’ve been participating in the “Development Progress Meeting”, which discusses new product development, for the last year, and whenever decisions are made by employees who have been brought up by ISK, we anyway end up adopting a slow and steady approach since they understand the difficulty. As an outsider, however, I wonder why they waste their time despite the existence of such good technology. I believe it’s important to develop the ability to actively evaluate “sprouts” at the company.

A: From the standpoint of streamlining management, I think we should trim down the number of decision-making items presented to the Board of Directors and the Executive Management Committee. Discussion is a good thing, but we should be cost-conscious about tying up Directors and Executive Officers at Board and committee meetings and spending much time preparing for the meetings. I believe that it is worth considering for us to review our agenda-setting standards.

K: We’ve been making improvements over the last few years. Reports have become more concise. However, unfortunately, they’re still too long. Our rule of Items for resolution of the Board

of Directors seems too strict. For example, what if the Executive Management Committee is convened not once a month, but rather as necessary? In addition, we should loosen the rule, and management issues are to be discussed and decided more frequently at the Executive Management Committee, rather than the Board of Directors. For Executive Management Committee, not all Executive Officers need to participate in every time. To realize fast decision-making, we should deeply consider and review how we manage those opportunities.

Looking towards the Future

Need to Improve Diversity and Sustainability Awareness

A: Diversity has long been an issue for ISK Group. I’d like to see us aware that employment, promotion and cultivation for women are required not because the Corporate Governance Code refers to, but because they lead us to secure capable personnel resources and increase the motivation of all the women at ISK Group.

K: The revised Corporate Governance Code also includes diversity, and it requires our stance that emphasizes sustainability. As for those diversity and sustainability, our responsibility as a company is to respond immediately when questions are raised by society. If we’re talking about climate change, when will Yokkaichi Plant stop using coal-fired boilers, and what will it use instead? In these days, “We’re studying that” is no longer an acceptable answer. Both employees and Outside Directors should use our ingenuity to the maximum so that we can support President Mr. Takahashi, who has the obligation to answer those questions.

H: If we can make progress on diversity and sustainability, taking this opportunity of the revised Corporate Governance Code, that’s a good thing for the company. Awareness of ESG and the SDGs among Board members, Executive Officers and employees rose as a result of the recent work to specifically identify Materiality. I’d like to see us make full use of those things to transform the way of thinking inside the company.

A: ISK Group has strong emphasis on compliance management. I would like to continue to give advice, drawing on my knowledge as an attorney and my experience as other company’s Outside Director.

K: I’d like to offer advice on increasing corporate value. Although all companies have their strengths and weaknesses, I look forward to making the most of ISK Group’s best qualities in consideration of accommodating changes in society.

H: My role is to bring the consumer’s perspective to discussions. As our principal customers are other companies, we sometimes pay less attention to general consumers. For environmental issues additionally, I’m going to introduce the voices and the views from government agencies, related groups and people outside, taking advantage of my past experience.

Board of Directors (As of June 30, 2021)



Kenichi Tanaka

Executive Director & Chairman



Hideo Takahashi

Executive Director
President & Chief Executive Officer;
Chief Compliance Officer (CCO)



Kiyomitsu Yoshida

Director;
Senior Managing Executive Officer
Organic Chemicals Business;
Director of Biosciences Business Headquarters



Yasunobu Kawazoe

Director;
Managing Executive Officer
Director of Finance & Accounting Headquarters



Masaki Shimojo

Director;
Managing Executive Officer
Director of Inorganic Chemicals Sales & Marketing

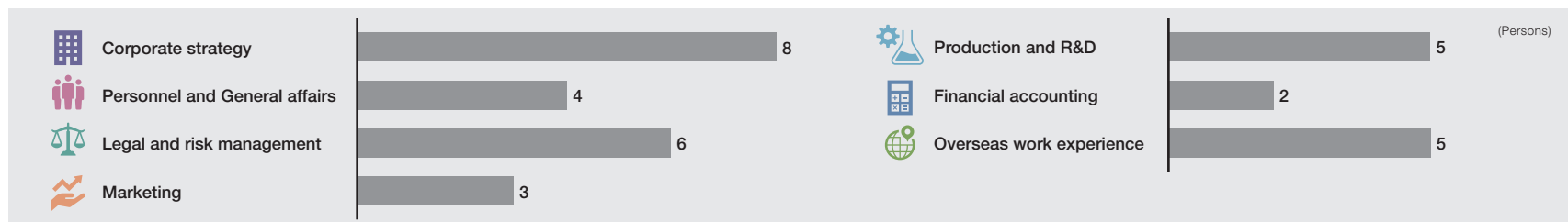


Hisashi Takenaka

Director;
Managing Executive Officer
Director of Yokkaichi Plant



• Expertise and Skills of Board Members



Board of Directors (As of June 30, 2021)



Hiroshi Katsumata
Outside Director



Tatsuo Hanazawa
Outside Director



Satoshi Ando
Outside Director



Audit & Supervisory Board Members (As of June 30, 2021)



Taizo Kato
Audit & Supervisory
Board Member



Yoshihito Akiyama
Audit & Supervisory
Board Member



Yoshitaka Akikuni
Outside Audit & Supervisory
Board Member



Masaaki Harima
Outside Audit & Supervisory
Board Member

Reasons for Appointment

Name and Position	Attendance at Board of Directors meetings	Evaluation Committee	Compensation Committee	Personnel Committee	Independent outside	Reasons for Appointment
Kenichi Tanaka Executive Director & Chairman	14 times / 14 meetings					Mr. Tanaka managed the entire ISK Group in a precise and efficient manner after becoming Executive Director & President in June 2015. In addition to reforming ISK's Corporate Governance, he demonstrated robust leadership in implementing Vision 2030, the company's long-term vision, and its New Medium-term Business Plan.
Hideo Takahashi Executive Director President & Chief Executive Officer	14 times / 14 meetings					Mr. Takahashi has worked primarily in research, product development, sales, and plant operations in ISK's inorganic chemicals segment. He has carried out important operational responsibilities and demonstrated appropriate decision-making and supervision in the company's management. He continues to be a driving force in the company's management through leadership based on this experience and track record. He has been appointed because he can be expected to help increase corporate value on an ongoing basis.
Kiyomitsu Yoshida Director Senior Managing Executive Officer	14 times / 14 meetings					Mr. Yoshida has worked primarily in 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 appointed because the Board has determined that he can help increase corporate value.
Yasunobu Kawazoe Director Managing Executive Officer	14 times / 14 meetings					Mr. Kawazoe has carried out important operational responsibilities and demonstrated appropriate decision-making and supervision in the company's management by drawing on the specialized knowledge in finance and accounting that he accumulated over many years at financial institutions, along with his extensive experience and track record. He has been appointed because the Board has determined that he can help increase corporate value.
Masaki Shimojo Director Managing Executive Officer	9 times / 9 meetings					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 company's management based on his extensive experience and track record. He has been appointed because the Board has determined that he can help increase corporate value.
Hisashi Takenaka Director Managing Executive Officer	New appointment					Mr. Takenaka has worked in the manufacturing and engineering; environment, safety, and health; and administrative departments at ISK's plant. He has carried out his responsibilities in an appropriate manner based on his extensive operational expertise and experience. He has been appointed because the Board has determined that he can help increase corporate value on an ongoing basis.
Hiroshi Katsumata Outside Director	14 times / 14 meetings	a)	a)	b)	a)	Mr. Katsumata has been appointed because the Board has determined that he will bring his extensive experience and knowledge as an executive at an industrial gas company as well as his diverse experience in the field of government administration to bear on the company's management from an objective and neutral outside perspective.
Tatsuo Hanazawa Outside Director	14 times / 14 meetings	a)	b)	a)	a)	Mr. Hanazawa has been appointed because the Board has determined that he will bring his extensive domestic and international experience and knowledge in the field of government administration, particularly in agricultural policy, to bear on the company's management from an objective and neutral outside perspective.
Satoshi Ando Outside Director	9 times / 9 meetings	a)	a)	a)	a)	Mr. Ando has been appointed because the Board has determined that he will bring his specialized knowledge as an attorney and his experience in corporate law to bear on the company's management from an objective and neutral outside perspective.
Taizo Kato Audit & Supervisory Board Member	14 times / 14 meetings	a)				Mr. Kato has been appointed because he can be expected to practice appropriate supervision and auditing of the company's management based on his service as an Audit & Supervisory Board member at ISK since June 2016 and his long experience in internal auditing operations.
Yoshihito Akiyama Audit & Supervisory Board Member	New appointment	a)				Mr. Akiyama, who has worked in administration and sales at ISK and who has served as a director and Audit & Supervisory Board member at affiliates in Japan and overseas, has been appointed because he can be expected to bring his experience and knowledge to auditing procedures at ISK.
Yoshitaka Akikuni Outside Audit & Supervisory Board Member	14 times / 14 meetings	a)	a)	a)	a)	Mr. Akikuni has been appointed because he can be expected to bring his far-ranging knowledge and insight, which were cultivated over many years at financial institutions, as well as his extensive experience as an Audit & Supervisory Board member at chemical companies to bear on auditing procedures at ISK from an objective and neutral outside perspective.
Masaaki Harima Outside Audit & Supervisory Board Member	14 times / 14 meetings	b)	a)	a)	a)	Mr. Harima has been appointed because he can be expected to bring his specialized knowledge as an attorney and his mastery of corporate law to bear on auditing procedures at ISK from an objective and neutral outside perspective.

Note 1: Attendance at Board of Directors meetings from June 25, 2020 to June 24, 2021.

Note 2: Committee service is indicated by a) (member) and b) (chairperson).



Ishihara Sangyo Kaisha, Ltd.
Executive Director and Chairman

Kenichi Tanaka

I resigned the position of President and became ISK's Chairman in June 2021.

There are primarily two reasons for my decision to make this succession. The first is that we were able to mark the 100th anniversary of the company's founding in 2020. Since we launched a new medium-term business plan in fiscal year 2021, I believed that it was the right time for me to step down as we move towards new accomplishments of the future described in our "Vision 2030".

The second is that we have found a path towards resolving challenges such as improving our financial position and addressing problems with Ferosilt, and in fiscal year 2019 we resumed dividend payments for the first time in 14 years. My background is in human resources, so I might not be so aggressive, but good at steadily keeping the existing business. I determined that the stage of patience—in which we had worked to return to a "normal" company—was over, and that it would be the best to proceed with the succession so that the next President can lead us to work with aggressive and forward-looking approach.

New-product development is essential for a chemical company. We're continually called upon to develop products that can contribute to society. My successor, President Takahashi, has R&D background; he knows technical issues and how to launch new products. Going forward, I hope that he often provides differentiated approach compared to me.

Our Personnel Committee, which comprises mainly Outside Directors and Outside Audit & Supervisory Board members, played the central role in choosing my successor. The committee chose a few candidates and then engaged in a series of discussions to determine who was best suited to the post. Consequently, the Board of Directors resolved to appoint the chosen candidate.

The resumption of dividend payments was the most significant event of my six-year tenure. At the outset, I thought the situation was bleak, but with our employees' hard work and devotion, we managed to achieve it. Internally, some people suggested that it would be sufficient to resume dividends to mark the 100th anniversary year in 2020, but I wanted to pay a commemorative dividend to mark that occasion, so we moved the resumption of dividends up one year to 2019. It was quite challenging and troublesome to resolve a number of compliance-related problems, including Ferosilt, occasioned much concern during my tenure. In the end, we somehow found a solution by obtaining the understanding of Authorities while receiving advice from third-party academic experts, which is a deeply emotional experience to me. Marking the 100th anniversary year was also a memorable experience. Although we had no way but to withdraw a party to commemorate the occasion due to the COVID-19 pandemic, we did mark the year by publishing a 100-year history book. It was a great honor for me to work as President during this memorable time.

However, my only regret is that I was unable to increase corporate value as much as I had expected. Although we organized and funded new departments in order to somehow launch new businesses, we failed to do so other than animal health products. Future growth for the company should be limited if we continue to rely on titanium dioxide and agrochemicals alone. This is precisely where I'd like to hand over the baton to our new President since he has development background.

I appreciate your co-operation as I work as Chairman to support the new President, and as one of the Board members I continuously do my best to stabilize and improve company performance and realize steady dividends to shareholders.

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.

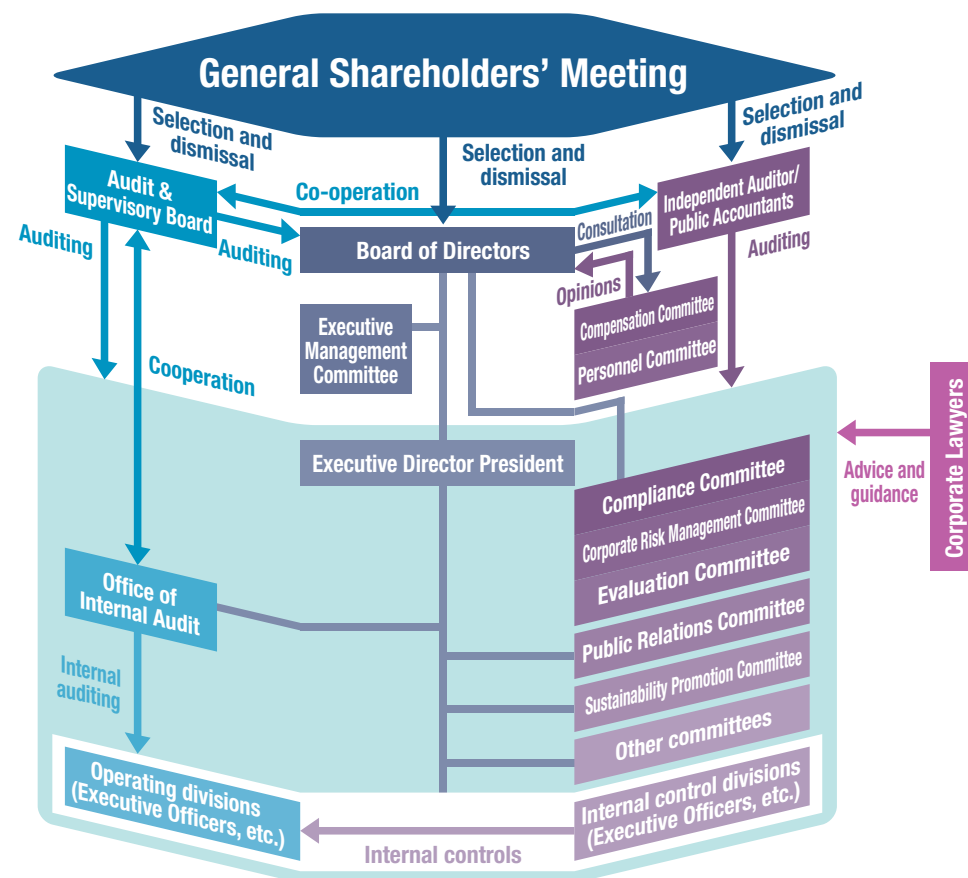
Corporate Governance Structure

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.

Effective November 11, 2021, we repositioned the Compensation Committee and Personnel Committee so that they play an advisory role to the Board of Directors rather than President for ensuring their independence and neutrality. Additionally, we set up Headquarter Team and Yokkaichi Team under the umbrella of Public Relations Committee for closer networking and more informative communication with investors, the local community, and other stakeholders. We also newly established Sustainability Promotion Committee as part of an ongoing effort to strengthen the basis of sustainable management.

• Corporate Governance Structure



Committees That Report to the Board of Directors

Compensation Committee	Functions	Responds to inquiries from the President, who is delegated by the Board of Directors about the remuneration of Directors, Executive Officers, and others	
	Composition	Chairperson	Independent Outside Director
		Members	Independent Outside Directors (2), independent Outside Audit & Supervisory Board Members (2)
		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	
	Composition	Chairperson	Independent Outside Director
		Members	Independent Outside Directors (2), independent Outside Audit & Supervisory Board Members (2)
		Note: All five positions on the committee (100%) are filled by independent Directors and 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	
	Composition	Chairperson (CCO)	Executive Director and President
		Special committee member	Executive Director and Chairman
		Regular committee member	Audit & Supervisory Board Member
		Committee members	Headquarters Directors (11), outside lawyer, ISK Labor Union chairperson, Directors of major affiliates (7)
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	
	Composition	Chairperson	Executive Director and President
		Special committee member	Executive Director and Chairman
		Committee members	Inside Directors (4), Directors of Headquarters (7)
Evaluation Committee	Functions	Analyzes and evaluates the overall effectiveness of the Board of Directors	
	Composition	Chairperson	Independent Outside Director
		Committee members	Independent Outside Directors (3), inside Audit & Supervisory Board Members (2), independent Outside Audit & Supervisory Board Member (1)
		Note: Five of seven positions on the committee (71%) 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
		Deputy chairpaerson	Inside Directors (4)
		Committee members	Headquarters Directors and others (5)
Sustainability Promotion Committee	Functions	Undertakes initiatives to address climate change, human rights, diversity and inclusion, and health and productivity management	
	Composition	Chairperson	Executive Director and President
		Special committee member	Executive Director and Chairman
		Deputy chairperson	Inside Directors (2)
		Committee members	Headquarters Directors and others (11)

Independence Criteria for Outside Directors

Outside Directors and Outside Audit & Supervisory Board Members are considered independent if none of the following applies to them.

1. A current or past (within the past 10 years) business executor*1 for ISK or its subsidiaries (collectively, "ISK Group")
2. A current or past (within the past 5 years) principal ISK shareholder (i.e., a shareholder that owns 10% or more of ISK's voting shares) or a business executor of the principal ISK shareholder
3. An ISK Group client, or a business executor of an ISK Group client, whose business dealings with ISK Group have accounted for more than 2% of ISK Group's annual consolidated net sales for any of the most recent three fiscal years
4. An ISK Group supplier, or a business executor of an ISK Group supplier, whose business dealings with ISK Group have accounted for more than 2% of said party's annual consolidated net sales for any of the most recent three fiscal years
5. An accounting professional, legal professional, or other type of consultant or a member of a consulting organization, which receives significant financial or other economic benefit*2 from ISK Group, other than Director remuneration
6. A party, or a business executor of a party, which receives or has received (within the past three years) significant financial contribution or assistance*3 from ISK Group
7. A spouse, relative within the second degree of kinship, or relative living together, of anyone that meets the criteria of #1 to #6 above

*1 A person who meets the criteria stipulated in Article 2, paragraph (3), item (6) of the Ordinance for Enforcement of the Companies Act.

*2 Normal remuneration averaging more than 10 million yen over the past three years.

*3 Annual contribution or assistance totaling more than 10 million yen over the past three years.

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 year 2020, as well, an evaluation of the Board of Directors' overall effectiveness was carried out in accordance with this policy.

Method of Evaluation

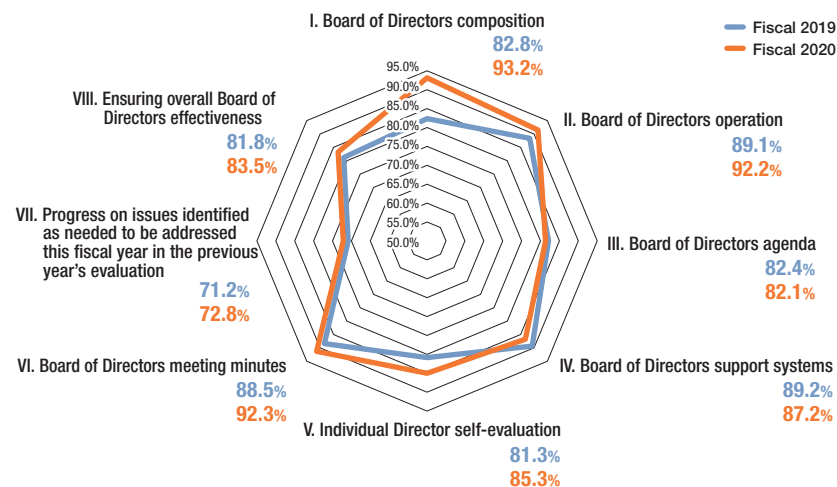
The Evaluation Committee prepared a questionnaire, which looked at 45 items across 8 areas, and then gave this questionnaire to all Directors and Audit & Supervisory Board Members. The responses were analyzed and evaluated, after which all 9 Directors were interviewed. Based on the evaluation results 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 2020.

Analysis and Evaluation Results of Overall Board of Directors Effectiveness

Compared with fiscal year 2019, the results showed improvement in the 6 areas of "Board of Directors composition," "Board of Directors operation," "Individual Director self-evaluation," "Board of Directors meeting minutes," "Progress on issues identified," and "Ensuring overall Board of Directors effectiveness," while there was a drop in the 2 areas of "Board of Directors agenda" and "Board of Directors support systems." Also, in fiscal year 2019, effectiveness was assessed at 80% or higher in 7 areas, but none were above 90%; whereas, in fiscal year 2020, the same 7 areas were all above 80%, even 3 of them were above 90%.

With regard to "Ensuring overall Board of Directors effectiveness," the results increased from 81.8% in fiscal year 2019 to 83.5% in fiscal year 2020, i.e., the overall effectiveness of the Board of Directors was ensured.

• Fiscal 2020 Board of Directors Effectiveness Evaluation Results (Achievement Level)



Future Initiatives

ISK published its first integrated report, *Integrated Report 2020*, in March 2021. This report provided stakeholders with integrated information about various aspects of ISK Group, including business performance, medium-to-long-term value creation-focused management policies, and business strategies. It will be updated every fiscal year. We are working to increase the overall effectiveness of the Board of Directors in order to facilitate the formulation of value-creation strategies for ISK Group and to prepare the foundation for implementing them.

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

- (1) Formulation of an action plan mainly by the corporate planning department aimed at qualitative improvement and development of expertise among Officers; provision of training opportunities to achieve this improvement and expertise; and focused discussion of long-term challenges for ISK.
- (2) Clarification of the positioning and division of roles between the Board of Directors and Executive Management Committee; and facilitation of free and spirited discussion about management strategy-related agenda items significant to the direction of ISK Group, such as medium-term business plan and annual management targets, as well as the future vision for the Group.
- (3) Proactive monitoring of group companies' management.
- (4) Proactive and dynamic action on sustainability-related issues, particularly social and environmental issues.
- (5) Self-study by Directors to cultivate knowledge essential to the appropriate execution of their roles and responsibilities; adequate monitoring of fellow Directors in the execution of their duties; utilization of internal auditing results from the Office of Internal Audit; and proactive communication and action contributing not only to one's own business area of responsibility but to Group management overall.
- (6) Appropriate reporting and discussion of medium-term business plan and annual management target progress, as well as of the maintenance and operation of compliance, internal controls about financial reporting and risk management systems.
- (7) Timely proposal of resolutions, accompanied by adequate explanation by the Director responsible of not only the merits but also the risks, and active and substantive discussion about individual agenda items, including any major risks to ISK business.
- (8) Clear and written specification of all resolution items to be discussed, accompanied by supplemental materials, which can be shortly and clearly understood and which provide sufficient information for the decision.
- (9) Efficient organization of reporting matters.

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/governance.html>

Remuneration of Directors

Policy for Determining Remuneration of Directors

Director remuneration includes a base remuneration amount and other remuneration, such as performance-based remuneration. The maximum amount of remuneration for Directors is approved by the Board of Directors within the limit of the total remuneration amount (460 million yen per annum), which had been approved at the 82nd Ordinary General Meeting of Shareholders on June 29, 2005.

Outside Directors receive only a base remuneration.

The maximum amount of remuneration for Audit & Supervisory Board Members is limited to the total remuneration amount (90 million yen per annum) approved at the 71st Ordinary General Meeting of Shareholders on June 29, 1994. It is only a base remuneration, and individually determined based on deliberation by the Audit & Supervisory Board.

Calculation Method for Director Remuneration

- (1) Base remuneration: Paid in accordance with the duties and roles as Directors and Executive Officers and

in line with Officer Compensation Regulations approved by the Board of Directors.

(2) Performance-based remuneration: Comprised of annual performance-based remuneration and long-term performance-based remuneration, which are established in Officer Compensation Regulations approved by the Board of Directors, and are intended to secure the connection with and objectivity about corporate performance.

1. Annual performance-based remuneration: Calculated based on a comprehensive consideration of net income attributable to owners of parent, which is the final result of corporate activities, together with individual performance evaluation.

2. Long-term performance-based remuneration: Calculated based on the achievement of medium-term business plan profit target and other criteria.

(3) ISK adopts a monetary remuneration system.

• Remuneration of Directors in Fiscal Year 2020

Director category	Total remuneration (Million yen)	Total remuneration by type		Applicable Directors (Persons)
		Fixed (Million yen)	Performance-based (Million yen)	
Directors (excluding Outside Directors)	179	151	27	6
Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members)	36	36	-	2
Outside Directors	53	53	-	5
Total	269	241	27	13

Note: The relative percentage of individual remuneration for Directors takes into account annual business performance, and is decided by the Board of Directors in consultation with the Compensation Committee.

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.

Verification of Reasonableness of Cross-Shareholdings

The reasonableness of currently held cross-shareholdings is regularly verified by the Board of Directors about some factors such as the adequacy of the purpose, the benefits and risks in the context of capital cost, of holding those shares. Based on the results of verification, the Board decides whether to continue holding or sell cross-shareholdings.

Cross-Shareholding Voting Criteria

With regard to the exercise of voting rights arising from cross-shareholdings, our decision is made based on our comprehensive assessment, which includes the content of the proposal, the performance of the company, its management policies, and from the viewpoint of whether or not the resolution will increase shareholder value for the company, and even increase ISK's corporate value.

Basic Policy on Risk Management

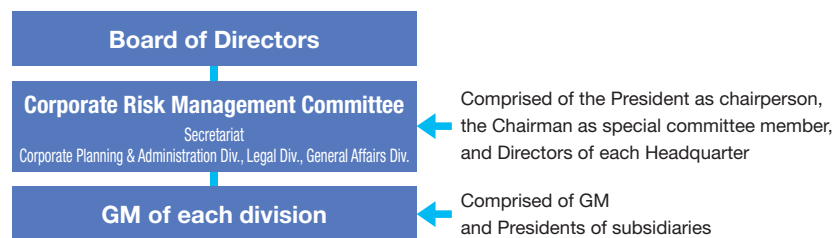
We ISK Group pursue risk management with the aim of preventing various risks that could seriously impact the smooth operation of our business, and in the event of an emergency, appropriately and swiftly addressing it in order not to harm the health, safety, or interests of stakeholders, restoring our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

Risk Management System

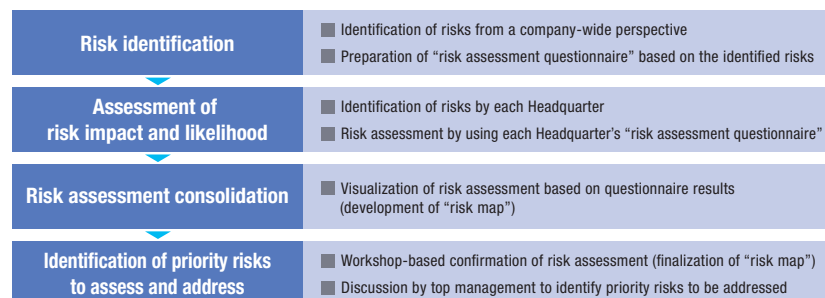
We have established our "risk management regulations" governing our basic policy on risk management and risk management system. We have also established Corporate Risk Management Committee chaired by the President, which tries to appropriately manage various risks surrounding our business and to obviate those risks.

Risk Management Policy

We perform risk assessment and adequately evaluate the risks so that we put in place necessary measures in advance to avoid, mitigate, or transfer the risk in order to maximize the effect and minimize the cost for ISK Group, depending on the impact and likelihood for each risk. Also, in the course of business decision-making, we actively identify and take action against foreseen risks.



• Risk Assessment Implementation Process



Risk Summary and Measures (extract)

Risk	Summary	Measures
Mass infection, disease	Risk of factory shutdown due to outbreak of infectious diseases such as COVID-19 or seasonal influenza	<ul style="list-style-type: none"> • Implement measures spearheaded by Headquarters of Infectious Disease Response • Utilize various work styles like remote work • Recommend online meetings for internal discussion
Revised and stricter laws and regulations	Risk of being unable to continue sales of existing products due to more stringent product registration rules or regulations	<ul style="list-style-type: none"> • Appropriately gather information relating to laws and regulations
New entries and intensifying competition	Risk of market share loss due to more competitive environment caused by entry of new competitors or other factors	<ul style="list-style-type: none"> • Enhancement of competitiveness by reducing production costs • Develop mixture products to differentiate in agrochemicals market • Increase sales ratio for high-value-added products
Aging and breakdown of equipment and machinery	Risk of plant shutdown due to inoperable situation caused by aging, corrosion, etc., of key equipment and machinery	<ul style="list-style-type: none"> • Perform thorough repairs and preventive maintenance while annual maintenance shutdown • Replace equipment when the right time • Promote the structure for backup systems
Earthquake, tsunami	Risk of plant shutdown or distribution network disruption as a result of large earthquake	<ul style="list-style-type: none"> • Formulate and carry out BCP, conduct emergency drills • Carry out BCP-related seminar • Check and confirm local hazard map
Difficulty procuring material, problem at supplier	Risk of supply shortage for specific raw materials due to suppliers' shutdown caused by riot or stricter environmental regulations in producing regions or countries Risk of reduced production volume or delayed shipping of our products since their raw material's supplier has some problem occurred in production line	<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 management • Expand the range of usable raw materials
Decline in agrochemical sales volume due to abnormal weather	Risk of decline in agrochemical sales volume led by lower demand for agrochemicals as a result of abnormal weather, such as typhoons, torrential rains, or drought	<ul style="list-style-type: none"> • Put in place system for gathering abnormal weather-related information and for conducting the necessary production adjustments • Maintain proper inventories • Target multiple markets
Inadequate ESG response	Risk of negative impact on our business activities due to imposition of carbon taxes on coal-fired boilers or other equipment, and due to stricter emission regulations	<ul style="list-style-type: none"> • Prepare roadmap for greenhouse gas reduction
Delay in, or stoppage of, product or technology development	Risk of deadlock in the business plan due to delay or stoppage of new product or technology development	<ul style="list-style-type: none"> • Check progress and status of development • Regularly review development themes
Technology drain	Risk of reduced product competitiveness due to drain of technology or expertise	<ul style="list-style-type: none"> • Apply for process patent and acquire rights • Conclude rights protection-related agreements
Fire, explosion	Risk of asset damage or loss, as well as death or injury of employees, due to catastrophe at our plant	<ul style="list-style-type: none"> • Formulate equipment preventive maintenance plan and carry out voluntary safety measures • Evaluate plant integrity

Risk Map (extract)



Notes:

1: 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.

2: 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.

Corporate Philosophy **p03** >>>

ISK Group Code of Conduct

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

Initiatives for Compliance

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.

Code of Conduct Message from Our CCO

Toward the realization of “Vision 2030”



Ishihara Sangyo Kaisha, Ltd.
Executive Director, President,
and Chief Compliance Officer (CCO)

Hideo Takahashi

This year, I took over as CCO from former President Tanaka. I am determined to continue to engage in corporate activities built on strict compliance. After marking its 100th anniversary in 2020, Ishihara Sangyo Kaisha, Ltd. (ISK) has taken the first step toward the next 100 years. As the first initiative, ISK has developed a vision of what the company wants to be ten years from now and established its long-term vision “Vision 2030: Originality. Acceleration. Global Reach. Transforming Lives Through the Power of Chemistry.” Meanwhile, it has defined its corporate purpose as “To continue contributing to better living environments through chemical technologies.” This vision and purpose will help us contribute to the realization of a sustainable society and concurrently improve ISK’s corporate value through our business activities. Compliance should be the basis of these efforts. Specifically, we must observe laws, regulations, and social norms. In addition, we need to operate based on the perspectives of ESG and the SDGs in our corporate management and daily operations. Many of the perspectives of ESG and the SDGs are included in our Code of Conduct. Our Code of Conduct provides a guideline for the daily efforts of each one of us working at our company and in our Group. I am expecting all our employees to fully understand the contents of the Code of Conduct, and integrate that awareness into daily business activities.

As the economy, society, and natural environment all enter a period of great change, I myself would like to lead the way in making changes with a sense of urgency. So, let us strive together.

Compliance-Related Training and Awareness-Raising at ISK

ISK Group carries out compliance-related training for every employee level in accordance with an annual plan, which is reviewed and approved by the Compliance Committee. In addition, all Group members were thoroughly familiarized with the revisions made to ISK Group Code of Conduct in fiscal 2020.

(1) Implementation Results and Status of Fiscal 2020 Compliance-Related Training and Awareness-Raising Efforts

As in previous years, a substantial number of ISK Group members participated in education and awareness-raising efforts carried out in fiscal 2020, including employees from affiliates in Japan.

1. Employee Level-Specific Training and Awareness-Raising in Fiscal 2020

■ Distance learning for new employees (Topic #1)

- Focus: General compliance-related basic training
- Participants: FY2020 new hires and FY2019 mid-career hires (mandatory)
ISK: 61 employees, Affiliates: 16 employees Total: 77
- Learning materials: "Compliance Explained!" distance learning course
- Completed by all participants

■ Advanced compliance training for newly appointed L-grade employees (formerly assistant managers)

- Focus: Development of human resources who facilitate compliance-based management
- Participants: Assistant managers promoted in FY2019 (mandatory)
ISK: 24 employees, Affiliates: 7 employees Total: 31
- Learning materials: "Learning Compliance by Case Example" distance learning course (self-study followed by an assessment test)
- Completed by all participants

■ Group training for newly appointed managers

- Focus: Reiteration of compliance basics and instruction in compliance-related knowledge essential to becoming managers
- Participants: Managers newly appointed in FY2020
ISK: 10 employees
- Group training led by a lawyer (Mr.Koike)

2. Topical Training and Awareness-Raising in Fiscal 2020

■ Insider trading regulations e-learning for all ISK managers

- Provided to all ISK managers (302 people)
- Participants were equipped with legal knowledge about insider trading under Japan's Financial Instruments and Exchange Act
- Case studies were discussed in order to communicate more practical points
- Completed by all participants

■ Compliance library training

We provided a training program that made use of ISK's compliance library (video materials), via the company intranet and DVDs. The program offered three-minute dramatizations of everyday, compliance-related situations that participants encounter in their jobs. Also, supervisors who provide day-to-day instruction to other employees in the workplace participated in seminars where they received direct instruction using lecture tools and materials for instructors. (In total, 491 sessions were held, encompassing 4,291 participants, including affiliate companies.)

- In fiscal 2020, workplace compliance-related training, which included library training was held a total of 584 times and encompassed 5,097 participants.

(2) Implementation Plan for Fiscal 2021 Compliance-Related Training and Awareness-Raising Efforts

Like the previous year, in fiscal 2021 distance learning for new employees, distance learning for newly appointed L-grade employees, and group training for newly appointed managers is planned.

In addition, topic-specific training is being implemented, with compliance-related group training for executives, insider trading regulations e-learning for affiliate company managers, harassment e-learning for L-grade and SV-grade employees, and compliance library training for S-grade and E-grade employees.

Training during the first half of fiscal 2021 has been carried out according to plan. However, training for executives has been delayed to March 2022 due to the COVID-19 pandemic.

Fiscal 2021 Topics

Job grade-specific training

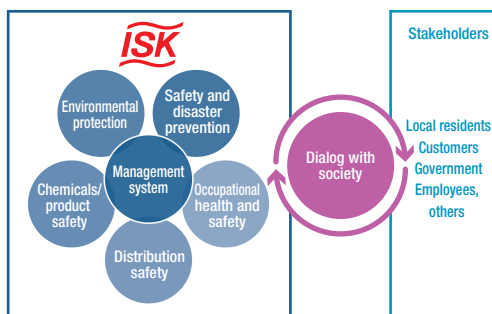
- Group training (with help from the HR department) for newly appointed managers (appointed in FY2021)
- Distance learning for newly appointed L-grade employees (appointed in FY2020)
- Distance learning (Topic #2) for new employees (FY2021 new hires and FY2020 mid-career hires)

New plan

- Compliance-related group training for executives
- Workplace-specific specialized law seminars
- Insider trading regulations e-learning for affiliate company managers
- Harassment e-learning for L-grade and SV-grade employees
- Compliance library training for S-grade and E-grade employees

ISK's Responsible Care

ISK Group 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.



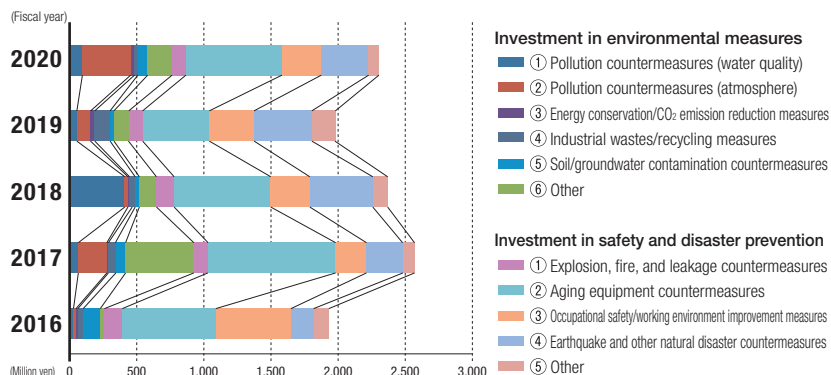
What is Responsible Care?

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.

Investment in Environmental Measures and Safety and Disaster Prevention Measures

Most investment is allocated to the Yokkaichi Plant. The graph below shows the trends of investment in environmental measures and investment in safety and disaster prevention. In fiscal 2020, we invested intensively in measures to replace aging equipment and measures to prepare for earthquakes and other natural disasters.



Basic Policy, Objectives, and Achievements of Responsible Care Activities

Category	Objectives/Plans	Fiscal 2020	
		Achievements	Evaluation
Environmental protection	Promotion of sharing environmental protection-related information	Promoted to share environmental protection-related information through such approaches as sending out emails and posting information on the company intranet. Shared environmental protection-related information through such approaches as sending out emails and posting information on the company intranet.	✓
	Reduce environmental-impact phenomena (targeting phenomena that rate at level 2 or higher on a six-level scale [level 0 to 5] for rating air and water quality environmental impact)	Compared with FY2019, occurrences of environmental-impact phenomena increased (FY2019: 8 occurrences → FY2020: 14 occurrences).	—
	Comply with Yokkaichi City's pollution control agreement and manage voluntary control target values	For air and water quality, agreement values and wastewater voluntary control standard values were not exceeded.	✓
	Planned emission reduction of PRTR-listed materials	Compared with the values achieved in FY2015 (five years ago), the volume of emissions into the air, public water areas, and transferred off-site was reduced.	✓
	Reduce energy intensity and electricity demand leveling assessment intensity by 1% year-on-year	In FY2020, energy intensity increased by 6.2% and electricity demand leveling assessment intensity increased by 6.3% year-on-year. The Yokkaichi Plant has set out energy efficiency improvement plans and is putting them into action.	—
	Achieve zero waste disposal-related failures and complaints	There were zero waste disposal-related failures and complaints.	✓
	Reduce, reuse, and recycle of waste	We carried out a variety of recycling, such as recycling of wooden pallets (materials with recoverable value), recycling of PVC piping, and thermal recycling of used flexible containers.	✓
	Reduce environmental load in activities spanning R&D to manufacturing	We are reviewing raw materials and production processes, and focusing on the development of products that contribute to environmental load reduction. We were able to confirm an effective reduction in the volume of inorganic sludge from a review of formulas used in the chemical product manufacturing process.	✓
Carry out in-house, CSR activity-based environmental protection-related education	We held briefings on the current state and future direction of CSR at all ISK sites (Head Office, Central Research Institute, Yokkaichi Plant, Tokyo Branch).	✓	

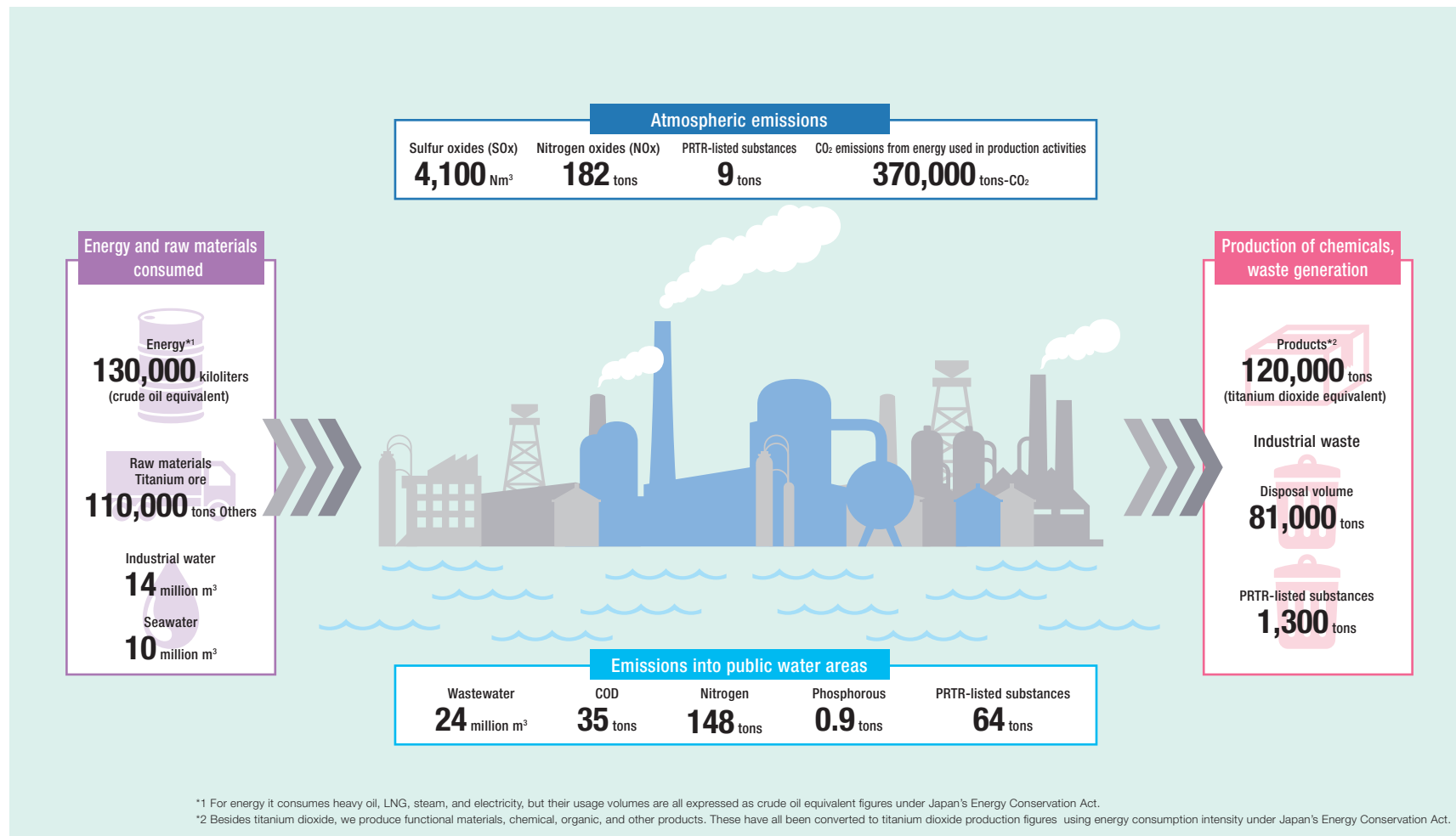
Category	Fiscal 2020		
	Objectives/Plans	Achievements	Evaluation
Process safety and disaster prevention	Eliminate plant accidents (fire, explosion, leakage)	There were two plant accidents (fire).	–
	Systematically hold disaster training and drills	The Yokkaichi Plant held comprehensive disaster drills in spring and September and special disaster drills in May, during which training and drills focusing individually on earthquakes, tsunamis, and fires were systematically carried out. The Central Research Institute held each departmental disaster drill (July, August, September) and a comprehensive disaster drill (October).	✓
	Making a company-wide BCP (business continuity plan)	We are reviewing earthquake disaster manuals and other resources at each ISK site. We are in the process of formulating a company-wide BCP framework.	✓
Occupational health and safety	Achieve zero workplace accidents (resulting in no lost-work accident) at each ISK site	There were no accidents resulting in lost work time at any ISK site.	✓
	Engage in regular opinion and information exchange via the occupational health and safety departments of each ISK site	On June 17, an occupational health and safety conference was held via teleconference, during which information was shared among ISK sites.	✓
	Promote initiatives aimed at better health awareness and health hazard prevention. Facilitate whole company-wide sharing of awareness-raising activities	We worked to boost employees' awareness of health through follow-ups and health guidance after medical check-ups, health-related seminars and courses, and other means. We also conducted company-wide stress checks in July.	✓
	Achieve zero employee commuter car accidents resulting in lost work time	There were zero employee commuter car accidents resulting in lost work time.	✓
Distribution safety	Implement emergency response card (so-called Yellow Card), GHS label, and SDS managements	We implemented company-wide managements in line with the detailed regulations for Yellow Cards and SDS. We created or renewed 1,392 Yellow Cards, GHS labels, and SDS.	✓
	Strengthen legal compliance and safety control systems relating to the shipment of dangerous, toxic, deleterious, or otherwise harmful chemical substances	We widely communicated information about laws and regulations relating to the shipment of hazardous chemicals, as well as SDS and Yellow Card-based information about cautions relating to the properties, usage, and handling of ISK products.	✓

Category	Fiscal 2020		
	Objectives/Plans	Achievements	Evaluation
Chemicals/product safety	Continue sharing chemical substance-related information through prompt disclosure	We shared relevant information via quarterly meetings of chemical substance control supervisors and via email communications, intranet postings, and other means.	✓
	Comply with chemical substance-related rules and regulations (chemical substance registration, GHS system) in Japan and overseas	We gathered information about regulatory tightening in Japan and overseas, which will require ISK to adapt, and took measures to comply with relevant laws and regulations.	✓
	Properly manage chemical substances	We appropriately notified the authorities on the use of chemical substances at ISK sites (Yokkaichi Plant, Central Research Institute).	✓
	Continue to provide chemical substance handling-related education	We provided education on endocrine-disrupting chemicals at each ISK site. This gave employees a better understanding of crucial knowledge, focusing on SDS, shared understanding of minor matters, international chemical substance-related laws and regulations, export trade controls for chemical products, Japanese chemical substance-related laws and regulations, and an outline of chemical substance-related reporting at ISK.	✓
Dialog with community	Put CSR reports on the ISK website and release them as a physical publication	We compiled CSR data and posted it on the ISK website.	✓
	Regularly disclose environmental management data on the ISK website	We posted the amounts of substances subject to total pollutant load controls that the Yokkaichi Plant released into the atmosphere and public water areas on the ISK website four times a year.	✓
	Promote communication and mutual dialog with residents of the local community	We gave local residents (residents' association members) a factory tour in November.	✓
	Contribute to integrated learning at local educational institutions	Due to the COVID-19 pandemic, we could not visit schools for special classes or give factory tours normally provided each year to local middle schools.	–
	Take part in Responsible Care-related dialog with communities	Although a community dialog session in the Yokkaichi area was scheduled for October 2020, it was postponed for the second year in a row due to the COVID-19 pandemic.	✓
	Publish an informational booklet for the local community	In January and August 2020, we published <i>Kizuna</i> (Shiohama community edition), an informational booklet.	✓
Pursue new development and expansion of CSR activities	In light of the global push for sustainability and in order to develop new CSR activities, we participate in an integrated report production team as part of an ESG (environmental, social, governance) initiative.	✓	

Evaluation: ✓ Achieved – Unachieved

Environmental Protection

At Yokkaichi Plant Material Balance in Fiscal 2020

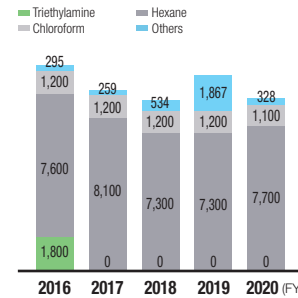


Release and Transfer of PRTR-Listed Chemical Substances to Environment

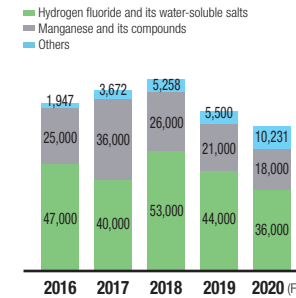
The PRTR (Pollutant Release and Transfer Register) is a system under which the government announces, from where, to where and how much chemical substances are released and transferred that may be harmful to human health and ecosystems. It also aims to encourage companies to exercise self-restraint through disclosure. There are 27 PRTR substances in Yokkaichi Plant and we have reported them to the government.

The graph shows the transition of emission and transfer in the Yokkaichi plant for the past five years. Due to a decrease in the use of hydrogen fluoride, the amounts of hydrogen fluoride and its water-soluble salts transferred off-site has also decreased since 2018.

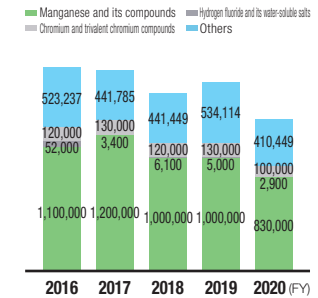
Atmospheric Emissions (kg)



Emissions into Public Water Areas (kg)



Amount Transferred Off-Site (kg)



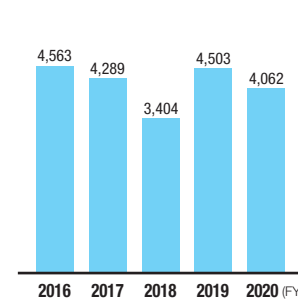
Reducing Environmental Impact on Atmosphere and Water Areas

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

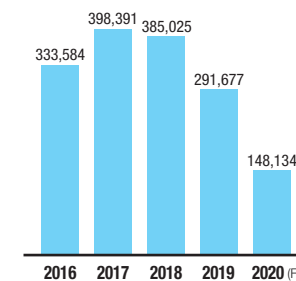
SOx emissions in the atmosphere and COD (chemical oxygen demand) in water areas have stayed at low levels. In addition, the Yokkaichi Plant has concluded an agreement with Yokkaichi City to set a voluntary control standard value for these categories, which is stricter than the total mass emission control value set by the law.

The ammonia recovery plant, installed in 2019, operated throughout the year in 2020, thus reducing the nitrogen load into public waters even further than in 2019.

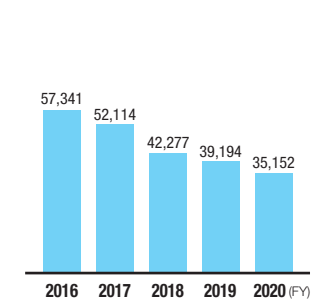
SOx Emissions (Nm³/year)



Nitrogen Pollutant Load into Public Water Areas (kg/year)



COD in Public Water Areas (kg/year)



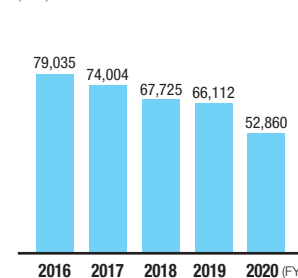
Reduction of by-product Inorganic Sludge

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.

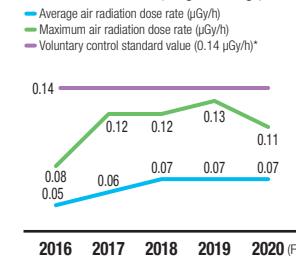
Controlling Air Radiation Dose Rate of Inorganic Sludge

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 removal as industrial waste, radiation levels are measured in accordance with voluntary control standard to ensure that they are safe.

Disposed Volumes of Inorganic Sludge (tons)



Air Radiation Dose Rate Originating from Radionuclides Contained in Industrial Waste (Inorganic Sludge)



*The voluntary control standard value (0.14 µGy/h) is equivalent to 1 mSv/year, an estimate of a level safe to the general public.

Occupational Health and Safety

Overview of Occupational Health and Safety Activities

ISK's health and safety policy is to ensure the safety, security, and maintain health of employees and local residents by complying with health and safety-related laws, preventing accidents and disasters, building a pleasant work environment, and constantly raising the level of health and safety.

In fiscal 2020, the Yokkaichi Plant achieved its target of zero lost time accidents. However, there were three injuries that did not result in lost work time. In one of these, a worker's leg struck a steel corner beside a walkway resulting in a laceration. This seemed an unlikely place for an accident, so we are now instructing workers to do their jobs with the awareness that potential dangers are hidden everywhere. Regarding workers' health, we are conducting follow-ups on health checkups to ensure that medical treatment is provided as early as possible when necessary.

At the Central Research Institute, although there were no workplace accidents, an employee commuting to work by car was rear-ended while stopped. Employees are being told to drive vigilantly to be ready for the likelihood of such accidents.



Hands-on training with fluids at the Yokkaichi Plant

Process Safety and Disaster Prevention

Process Safety and Disaster Prevention Initiatives

Safety control is the foundation of ISK's business. At Yokkaichi Plant, our target is to eliminate fires, explosions, and any kinds of leaks. We conduct risk assessments with What-If Scenario Analysis: when installing new equipment or upgrading existing ones, when updating production methods, and when doing safety assessments of existing equipment where high-risk items such as hazardous substances and high-pressure gas are handled. Then, countermeasures are taken for the extracted potential risks.

We also focus on accident case study education, and company executives conduct periodic safety patrols.

In fiscal 2020, there were two fires caused by faulty devices and wiring. We instigated stricter inspection rules to ensure this does not happen again. Earthquake and tsunami evacuation drills to prepare for a megathrust earthquake is held annually for all personnel and vehicles using our plant. This improves our ability to respond quickly and appropriately to such emergencies.



Executives conduct a safety inspection at the Yokkaichi Plant

Disaster Drills

Usually the Yokkaichi Plant's fire brigade conducts emergency drills jointly with the local fire station, on view to the inviting public. Due to COVID-19, in fiscal 2020 the plant's fire brigade conducted the drills only itself, without the local fire station and the inviting the public. To prevent viral infections, we conducted drills while wearing masks and using megaphones to maintain appropriate interpersonal distance. Although there were no joint drills again in fiscal 2021, the plant's fire brigade conducted lone drills that were verified by the Yokkaichi City Fire Department. We fine-tunes the drills every year with the aim of raising the level of disaster preparedness.

To raise disaster preparedness awareness at the Central Research Institute, a disaster drill improvement team was launched consisting of one employee from each department. The team works with health and safety committee members in planning and conducting drills in each department that focus on a different area (substance leakage, fire, earthquake) each year. These departmental disaster drills are thoroughly reviewed prior to holding a comprehensive disaster drill for the entire Central Research Institute.



Disaster drill at the Yokkaichi Plant



Comprehensive disaster drill at the Central Research Institute

Message from the Director of General Affairs & Human Resources Headquarters

Promote the construction of a system and culture in which diverse human resources can play an active role

Strengthen investment in people who will be the path to increase corporate value

The world is at a turning point.

We face global problems like climate change and energy crises, and people are having to adapt to new lifestyles due to the COVID-19 pandemic. Amidst these and other earth-shattering changes, companies are being forced to examine the fundamental purpose for their existence.

In Vision 2030, which we released last year, we defined ISK Group corporate purpose—to continue contributing to better living environments through chemical technologies—and announced our aim to contribute to the realization of a sustainable society while also improving our corporate value through business activities. With Vision 2030 as its compass, ISK will create new value towards sustainable growth by continuously improving our people and our organization—both of



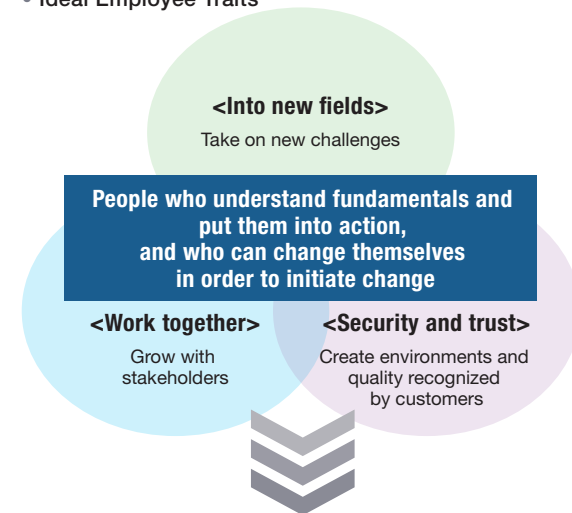
which are the backbone of value creation.

To this end, on the occasion of ISK's 100th anniversary in 2020, we renewed our personnel system.

Of course, simply changing the system will not solve all our problems. Under Vision 2030 Stage I, our medium-term business plan starting this fiscal year, the personnel division's target is to firmly establish the new human resources system. Specifically, we will create systems supplementary to the new personnel system, and we will focus on disseminating a high-level company concept among employees through employee training and education.

Put frankly, this reflects the fact that our current company systems and employee mindset are outdated. The message we are sending with our new personnel system is that our company must "change to change". What's important is to make all employees understand that we must "change to change" in preparation for the society's change if our company is to survive. I believe that what our company can do is to encourage such change using systems and mechanisms. Therefore, along with the 2020 revision of our personnel system, we have set the five ideal type human resource, which reflect philosophies that should be shared in human resource management, and values that should be shared by all employees. We will work with speedily than ever to tackle numerous human resource issues so that we can fully support the realization of Vision 2030.

• Ideal Employee Traits



- 1: Human resources who have a sense of responsibility as a professional and produce high results
- 2: Human resources who are sensitive and flexible to changes, with the strength to overcome difficulties
- 3: Human resources who understands the path the company should take and the issues it should address, and takes action
- 4: Human resources who are constantly evolving, always aiming to be one step higher and one step ahead
- 5: Human resources who can collaborate with stakeholders and grow together through work

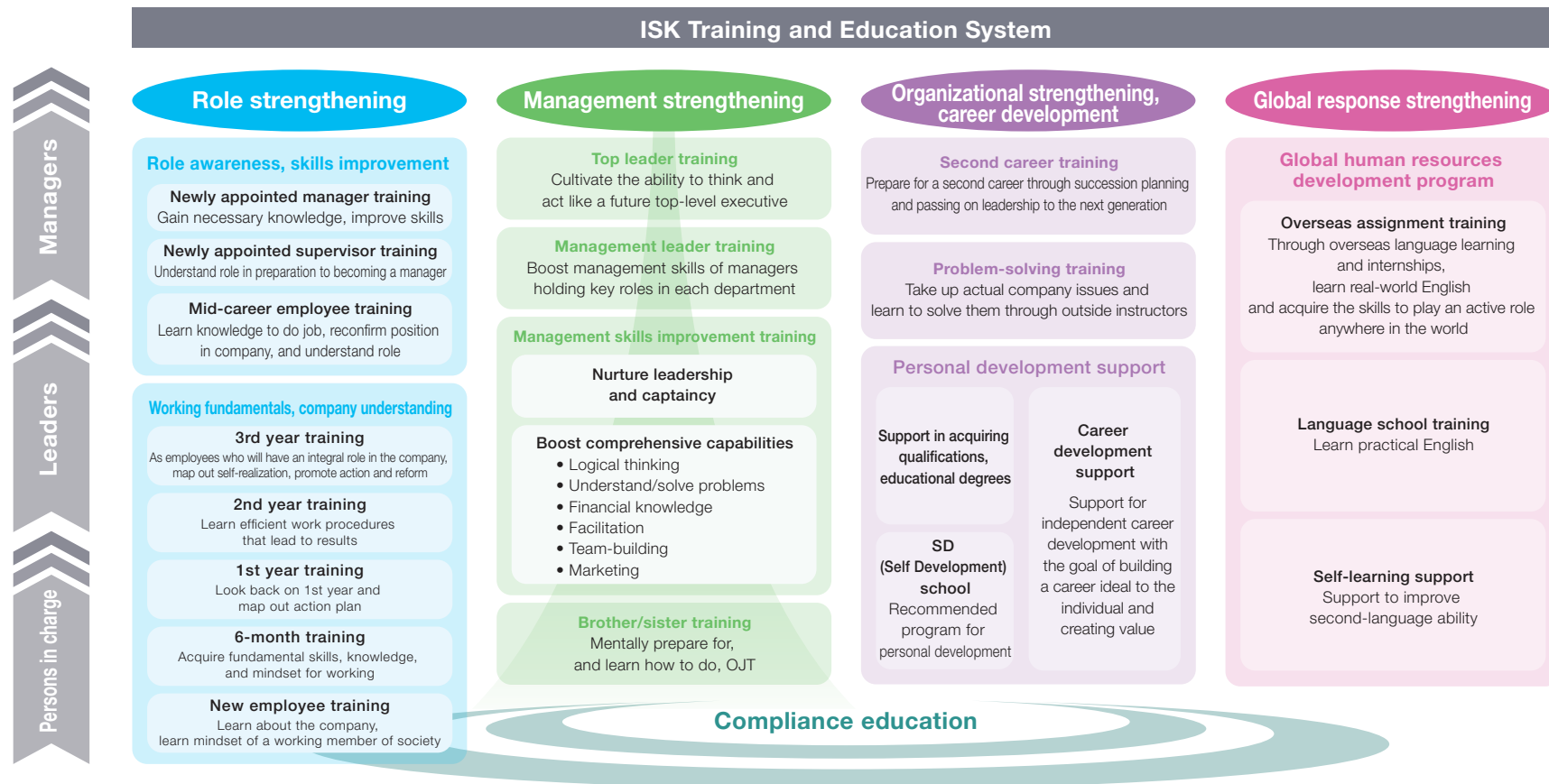
Career Development Support

ISK reformed its personnel system in 2020. Previously, jobs were classified as career track (employees can transfer to anywhere in Japan) and general staff (they can work only locally). But the new system has only one classification, meaning everyone has the same opportunity to take on high-level job challenges in the company.

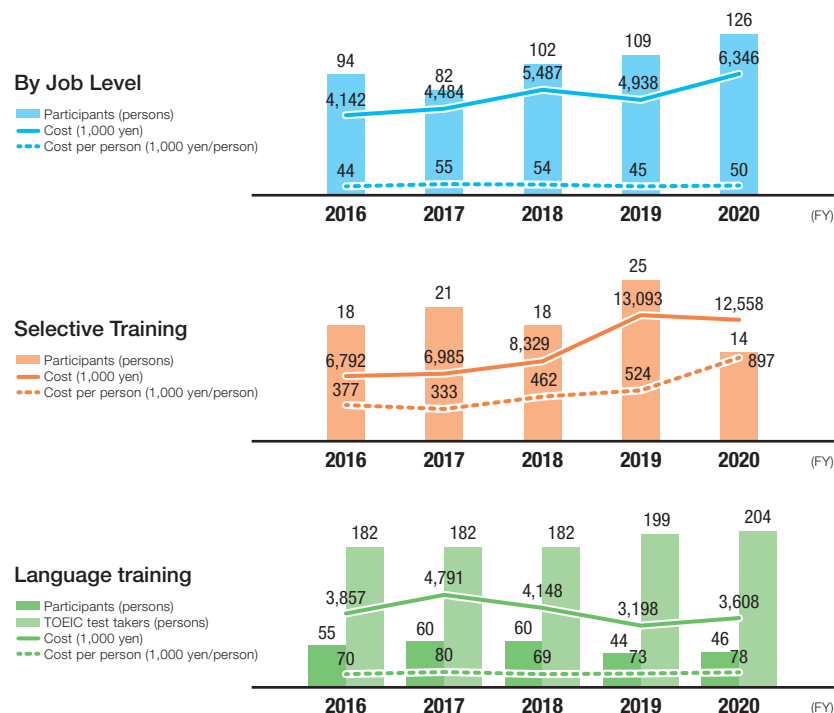
For all employees to achieve personal growth through their jobs and continuously contribute to society, they must always have the chance to study and enlightenment. To enable each one to plan and pursue

their future, we hold career design training at all ISK locations and we offer employees support in pursuing their careers.

ISK's retirement age is 60, but raising this to 65 is a pressing issue for us. We are currently revising our systems for retirement packages and corporate defined contribution pension with an eye to making 65 the retirement age. In tandem with these system revisions, we hold second career training as part of efforts to provide opportunities for motivating work in which people can use their talents even after the age of 60. This also allows ISK to create a succession plan for passing on leadership to the next generation.



• Training Achievements Data (Participants, Cost)



Effort of Boosting Employee Engagement

To achieve sustainable growth, it is essential to create a virtuous circle of (1) raising work productivity through more employee engagement, (2) ensuring competitiveness by boosting customer satisfaction, and (3) improving business performance.

With the introduction of the new human resources system in 2020, we gave a survey to all ISK employees with the goal of making employee awareness and organizational issues more visible. Survey results showed that while there was a high level of satisfaction among employees, many did not realize the impact that changes in the business environment have on our company. It also showed that our high-level concepts (mission, values, strategies, etc.) have not permeated well throughout ISK.

In response to these survey results, we have concluded that raising engagement is a crucial part of corporate growth and that we must conduct an engagement survey that takes into account employee engagement and work engagement. We will thus conduct periodic engagement surveys to gauge the situation and use what we learn in building better mechanisms and a better organizational structure.

Diversity and Inclusion

The achievement of Vision 2030 will require the creation of workplaces where people with diverse values and attributes can play their roles. We therefore are implementing measures for hiring and retaining a diverse range of individuals throughout ISK.

During the transition period of the new human resources system, we must not only operate the system properly in order to give everyone an equal opportunity to be promoted to managers and executives, but also cultivate an organizational culture where employees can be trained and work with acceptance and full utilization of their unique ideas and differences. This will help ISK make the most of people from various backgrounds, regardless of their gender, nationality, age, or physical ability.

• Recruitment System for Diverse Human Resources

To ensure we receive job applications from a diverse range of candidates through various channels, in 2019 we introduced a new recruiter system encompassing all job categories, including referrals, new university graduates, and mid-career hires. We also have a return employees system that allows employees who left ISK for unavoidable reasons to join us again with their newfound experience and knowledge. These systems give us access to a larger pool of human resources.

• Pleasant Work Environment

We have systems such as flextime and shortened work hours for child care. So that employees can more easily and effectively use these systems, we are gradually revising them in response to society's changes and employee needs, in addition to revising the requirements for employees using these systems.

To invigorate our organization and adapt to the needs of employees' changing work patterns and work-life balance, we have expanded the ways that employees can take days off, such as hourly-basis time off, and we have revised the requirements for taking accumulated holidays.

With an eye to extending ISK's retirement age to 65 and allowing employees to enjoy a long and healthy work career, we are studying different ways to hire people and new types of working arrangements.

• Diversity and Inclusion Achievements

Item	Stance	2016	2017	2018	2019	2020
Percentage of female employees (%)	Systematically promote female employees and set numerical targets for the percentage of managers among female employees, and aggressively implement measures for building a work environment conducive to women.	15.4	16.3	16.4	16.9	16.9
Percentage of managers among female employees (%)		7.2	7.1	8.0	8.0	6.7
Percentage of employees with disabilities (%)	Aim not just to meet the legally mandated employment rate, but ensure that each employee plays a vital and rewarding role in the organization.	2.3	2.4	2.1	2.2	2.0
Percentage of employees rehired after retirement (%)	To make the most of individuals who have a wealth of experience and are eager to work, implement systems for rehiring employees who have retired.	94.4	86.4	88.9	100	86.4



Azusa Morito

Central Research Institute
Bioscience Research Laboratory

Using Knowledge to Directly Benefit Agriculture

The Central Research Institute in Kusatsu, Shiga Prefecture is the heart of ISK's research and development. About 180 researchers work by day and night in ongoing R&D of new chemicals for the market. We spoke with one researcher, Azusa Morito, about her daily research activities. Ms. Morito is involved in research on Bemidetach™, an glycerin acetic acid fatty acid (released in 2019) that keeps the sweetpotato whitefly (*Bemisia tabaci*) from damaging tomato crops.

Exploring the Possibilities of Insect Behavior Regulators

Ms. Morito joined the final stage of development of Bemidetach and currently researches ways to expand its application. Of the three Bemidetach researchers, her job focuses on conducting experiments using plant viruses and behavior regulation of the whitefly.

"Our group works a little differently than others. We basically each work alone and when necessary conduct experiments together. So I have to pretty much do everything on my own," Ms. Morito said.

Her work covers the entire spectrum, including breeding insects, growing the test crops, and detecting DNA and RNA viruses using a PCR test, which many people have come to know because of the COVID-19 pandemic.

Bemidetach is a behavior regulator that confuses adult whiteflies.

"Using an insecticide will kill most of the whiteflies, but some will manage to survive. If this continues, subsequent offspring will develop a resistance to that insecticide. For this reason, the type of chemicals that can be used against whiteflies are limited in major production areas for crops like tomatoes and melons. Bemidetach, on the other hand, does not really physically alter whiteflies so they don't tend to develop a resistance to it," Ms. Morito said.

Whiteflies acquired and transmitted the virus when they suck the sap from the leaves of a plant. If an insecticide is used, the whitefly

continues to transmit the virus until the insecticide's active ingredient finally kills it. Bemidetach confuses the whitefly and makes it hard for it to suck the leaf sap, thus effectively preventing the whitefly from transmitting the virus.

In addition, according to Ms. Morito, "Bemidetach also inhibits the whitefly's mating behavior. The whitefly female can lay eggs without having mated with the male, but the offspring will all be male. This will prevent propagation of the next generation. Since whiteflies reproduce at about one generation per month, the effects of Bemidetach will manifest in three months."

ISK Group is not the only one working on new types of agrochemicals. To stay ahead of competitors, it must generate data that shows the advantages of its products.

"There are other chemicals that also have repellent and density inhibition properties, but we know that Bemidetach has unique properties of its own. We work day in and day out looking for ways to use the product that maximize such strengths," Ms. Morito said. Devising how to get such data is one of Ms. Morito's jobs.

"Because Bemidetach is unlike anything that has come before, I have to come up with out-of-the-box experimental methods. This is hard, but very interesting."

Ms. Morito is now researching ways to expand the range of applications for Bemidetach.

“We are currently studying to see if it’s possible to inhibit the activity of other pests, such as aphids and leafhoppers, that harm a large variety of crops. Farmers are telling us they’d like to try Bemidetach with other crops too, so we’re studying what other crops it could be used on.”

Visible Progress Makes Every Day Fun

After studying plant pathology in graduate school at an agricultural university in the Kanto region (eastern Japan), Ms. Morito joined ISK in 2016 because she wanted to use her knowledge in the field of agriculture. She has since dedicated herself to research and development. “I love making new discoveries, and that’s something a researcher is doing all the time. My experiments generate new data, which helps sell more of the chemicals I handle. I can actually see the fruits of my labor, which really makes my job fun.”

Although she tackles problems with crops and insects every day in her work, Ms. Morito had never touched an insect before she joined ISK. “I chose this path because I liked Biology, so insects don’t bother me. To get anoplophora malasiaca (white-spotted longicorn beetle) to use in experiments, I once went to a test fruit orchard in Oita Prefecture (western Japan) and spent eight hours to get 100 of the insects. Because they live at the roots of the trees, I patiently searched for them with crawling. It was fun—I felt like a kid collecting insects.” Still, she has an aversion to caterpillars.

Ms. Morito is also the mother of an infant. After giving birth in 2020 and taking a year of childcare leave, she came back to work in April 2021.

“My husband also works at the Central Research Institute. He also took a month and a half off work during that time, which was a big help. There are more and more cases recently of couples at ISK taking childcare leave together. My boss is a woman, so she understands my situation and gives me useful advice.”

Ms. Morito can use flextime to choose her work hours, and she doesn’t have to hesitate to take time off in case her child suddenly gets a fever. She says that the work environment is much more conducive to women than it used to be.

10-odd Years to Develop a New Chemical

Ms. Morito hopes to someday branch out from research and development into other work areas.

“I chose ISK because I wanted to focus on research, but coming into contact with people in other departments has widened my sphere of interests. Of course I want to do research, but I also want to take on challenges that lead to product sales, such as doing strategy planning in the marketing department. I’ve also become interested in training human resources through participation in the ISK union’s youth branch.”

That being said, she still wants research to be the driving force of her work at ISK.

“With Bemidetach, I joined at the last stage of product development. Next time, I want to be involved from the very start of development of a new chemical. Although development takes from 10-odd years, I think that if I am thoroughly involved in cultivating a new product, I will have a real passion for it. I want to take on challenges in new fields; new discoveries and ideas are constantly sprouting up at the Central Research Institute, and I want to help

bring these to market to contribute to world food production.”

Talking about her home life, Ms. Morito says, “It is ideal that my husband and I cooperate so that we can attain a work-life balance. The many women at ISK who used to have a tough time balancing work and home life did everything they could to change the company’s systems. These have helped make it much easier to work as a woman at ISK today. I’m the type of person who doesn’t just want to stay at home; I’d rather do experiments at work as well. I love research; it’s so much fun.” With a big smile, she says, “I feel so lucky still be able to continue work as a researcher after got married and had a child.”



Financial Summary (Consolidated)

(FY)

Fiscal year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Profit and loss											(Million yen)
Net sales	99,057	102,378	100,441	105,293	103,330	102,903	101,601	108,001	106,441	101,066	101,774
Operating income	9,038	9,760	2,792	3,038	11,104	8,314	8,415	10,022	11,372	6,188	5,173
Net income attributable to owners of parent	4,850	2,710	719	-8,207	6,661	9,151	3,804	3,442	8,683	2,359	3,373
Financial status											(Million yen)
Current assets	93,882	102,277	103,693	96,321	105,204	109,386	102,565	103,387	107,080	110,324	117,003
Property, plant and equipment	56,107	53,904	55,046	47,159	44,525	38,733	39,183	40,843	43,167	46,271	47,107
Intangible assets, investments and other assets	22,439	18,553	17,719	21,051	17,932	14,935	15,121	15,536	18,442	15,841	15,909
Total assets	172,429	174,734	176,459	164,532	167,662	163,056	156,871	159,767	168,689	172,437	180,021
Current liabilities	58,113	65,712	64,713	59,495	56,892	49,725	47,310	47,990	44,712	43,737	42,203
Long-term liabilities	66,157	59,784	59,904	60,337	59,990	54,396	46,579	44,638	48,642	52,029	58,302
Total net assets	48,158	49,237	51,842	44,699	50,779	58,933	62,981	67,137	75,335	76,669	79,515
Interest-bearing debt	79,057	76,843	85,772	77,654	78,738	67,686	58,781	51,328	49,528	52,531	60,103
Other											(Million yen)
Cash flows from operating activities	7,563	7,435	-7,198	12,067	6,351	10,268	14,631	16,607	4,907	3,317	4,749
Cash flows from investing activities	-1,345	-4,239	-5,734	-4,125	-3,214	9,656	-5,950	-6,030	-8,590	-6,922	-6,162
Free cash flow	6,218	3,195	-12,932	7,941	3,136	19,925	8,681	10,577	-3,682	-3,605	-1,413
Depreciation and amortization	5,627	5,597	5,699	5,271	4,757	4,458	4,215	4,214	4,266	4,445	4,669
Capital investment	5,413	4,369	6,127	2,758	3,049	4,507	5,407	6,142	7,141	8,062	6,092
R&D expenses	6,776	7,884	8,451	8,965	9,330	8,988	8,173	8,706	8,070	9,150	8,639
Per share status											(Yen)
Current net income per share	121.20	67.73	17.97	-205.19	166.58	228.88	95.15	86.12	217.25	59.03	84.41
Dividends per share	-	-	-	-	-	-	-	-	12.00	20.00	18.00
Financial indicators											
Operating margin (ROS, %)	9.12	9.53	2.78	2.89	10.75	8.08	8.28	9.28	10.68	6.12	5.08
Return on equity (ROE, %)	10.43	5.57	1.42	-17.00	13.95	16.68	6.24	5.29	12.19	3.10	4.32
Return on assets (ROA, %)	5.21	5.62	1.59	1.78	6.69	5.03	5.26	6.33	6.92	3.63	2.94
D/E ratio (double)	1.64	1.56	1.65	1.74	1.55	1.15	0.93	0.76	0.66	0.69	0.76

Non-Financial Summary

(FY)

Fiscal year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Atmosphere SOx (consolidated)											
SOx emissions (Nm ³ /year)	22,099	14,230	10,347	12,078	9,516	9,669	8,471	7,812	5,011	6,532	5,478
Water quality COD (consolidated)											
COD (kg/year)	82,594	69,645	64,922	76,166	70,947	79,202	67,880	66,958	66,388	57,884	58,540
Water quality Nitrogen (consolidated)											
Nitrogen pollutant load (kg/year)	253,608	214,817	224,140	267,245	269,579	290,538	350,008	419,233	406,233	306,657	159,843
Energy-related (consolidated)											
Year-on-year comparison of energy intensity (%)	-	108.0	102.7	95.7	100.9	105.6	97.8	98.2	99.3	106.3	106.9
Energy intensity (kl/t)	0.92	0.99	1.02	0.97	0.98	1.03	1.01	0.99	0.99	1.05	1.12
Workplace accidents (consolidated)											
Frequency rate of lost-worktime injuries	0.49	0.51	0.00	1.13	0.59	1.15	2.29	0.56	1.07	1.01	0.50
Severity rate	0.01	0.01	0.00	0.05	0.08	0.04	0.09	0.00	0.01	0.02	0.07
CO₂ emissions (consolidated)											
Year-on-year comparison of CO ₂ emissions from Yokkaichi Plant and Fuji Titanium (%)	104.1	107.6	84.5	105.7	91.8	100.2	102.9	100.7	90.8	98.1	91.5
CO ₂ emissions from Yokkaichi Plant and Fuji Titanium (t)	533,885	574,292	485,346	513,222	471,284	472,335	486,087	489,507	444,557	436,283	399,181
Waste (consolidated)											
Disposed volumes of industrial waste (inorganic sludge) (t)	116,377	102,566	100,708	100,095	98,353	96,210	92,629	88,990	81,469	77,935	63,076
Number of employees (non-consolidated)											
Number of male employees	983	1,032	1,019	1,008	967	935	912	870	895	919	955
Number of female employees	168	167	173	172	173	171	166	170	175	187	194
Male employee ratio (%)	85.4	86.1	85.5	85.4	84.8	84.5	84.6	83.7	83.6	83.1	83.1
Female employee ratio (%)	14.6	13.9	14.5	14.6	15.2	15.5	15.4	16.3	16.4	16.9	16.9
Number of female employees, manager ratio (non-consolidated)											
Number of female managers	5	6	8	8	10	12	12	12	14	15	13
Female manager ratio (%)	3.0	3.6	4.6	4.7	5.8	7.0	7.2	7.1	8.0	8.0	6.7
Number of employees taking childcare leave	11	9	8	15	21	14	12	14	13	18	22
Annual paid leave acquisition rate (%)	75.1	77.6	72.0	71.6	74.4	77.6	75.4	75.9	75.6	77.0	73.6
Other (non-consolidated)											
R&D employee ratio (%)	24.2	23.9	24.4	24.1	23.1	21.6	22.7	22.9	22.0	22.0	20.9
Number of patents held	1,348	1,437	1,576	1,800	1,743	2,070	2,353	2,788	2,866	2,714	2,593

Consolidated Balance Sheet

(Unit: millions of yen)

	Previous consolidated FY (March 31,2020)	Current consolidated FY (March 31,2021)
Assets		
Current assets		
Cash and deposits	20,925	25,941
Notes and accounts receivable – trade	32,059	34,235
Merchandise and finished goods	32,664	31,180
Work in process	6,047	5,040
Raw materials and supplies	15,004	18,253
Other	4,683	3,456
Allowance for doubtful accounts	(1,060)	(1,104)
Total current assets	110,324	117,003
Noncurrent assets		
Property, plant and equipment		
Buildings and structures	39,904	40,810
Accumulated depreciation	(25,219)	(26,136)
Buildings and structures, net	14,685	14,674
Machinery, equipment and vehicles	111,047	114,944
Accumulated depreciation	(93,371)	(94,845)
Machinery, equipment and vehicles, net	17,676	20,099
Land	5,373	5,356
Leased assets	2,675	2,195
Accumulated depreciation	(1,608)	(1,375)
Leased assets, net	1,067	820
Construction in progress	6,632	5,319
Other	3,922	4,026
Accumulated depreciation	(3,086)	(3,188)
Other, net	836	837
Total property, plant and equipment	46,271	47,107
Intangible assets		
Leased assets	8	3
Other	461	547
Total intangible assets	470	551
Investments and other assets		
Investment securities	5,932	6,187
Deferred tax assets	8,427	8,547
Net defined benefit asset	9	10
Other	1,085	698
Allowance for doubtful accounts	(84)	(84)
Total investments and other assets	15,371	15,358
Total non-current assets	62,112	63,017
Total assets	172,437	180,021

(Unit: millions of yen)

	Previous consolidated FY (March 31,2020)	Current consolidated FY (March 31,2021)
Liabilities		
Current liabilities		
Notes and accounts payable – trade	17,433	14,476
Short-term loans payable	7,932	8,100
Current portion of long-term loans payable	7,937	8,323
Current portion of bonds	684	1,118
Lease obligations	467	403
Accrued income taxes	371	614
Accrued expenses	4,359	4,419
Accrued bonuses for employees	667	641
Reserve for sales returns	24	21
Provision for environment and safety improvement	34	82
Provision for maintenance	382	-
Provision for loss on business withdrawal	-	193
Other	3,444	3,807
Total current liabilities	43,737	42,203
Long-term liabilities		
Bonds payable	3,036	5,017
Long-term loans payable	28,053	33,130
Lease obligations	686	491
Provision for environment and safety improvement	2,052	1,741
Provision for maintenance	-	140
Provision for loss on business withdrawal	-	86
Net defined benefit liability	12,884	12,693
Asset retirement obligations	682	552
Liabilities from application of equity method	399	451
Other	4,234	3,997
Total long-term liabilities	52,029	58,302
Total liabilities	95,767	100,506
Net assets		
Shareholders' equity		
Capital stock	43,420	43,420
Capital surplus	10,627	10,627
Retained earnings	25,298	27,872
Treasury shares	(727)	(730)
Total shareholders' equity	78,618	81,189
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	(429)	(308)
Foreign currency translation adjustment	(1,216)	(1,286)
Remeasurements of defined benefit plans	(302)	(78)
Total accumulated other comprehensive income	(1,948)	(1,674)
Total net assets	76,669	79,515
Total liabilities and net assets	172,437	180,021

Consolidated Statements of Income

(Unit: millions of yen)

	Previous consolidated FY (April 1,2019 to March 31,2020)	Current consolidated FY (April 1,2020 to March 31,2021)
Net sales	101,066	101,774
Cost of sales	69,991	73,151
Gross profit	31,074	28,622
Selling, general and administrative expenses	24,886	23,448
Operating income	6,188	5,173
Non-operating income		
Interest income	56	26
Dividend income	286	262
Share of profit of entities accounted for using equity method	214	38
Foreign exchange gains	-	597
Reversal of allowance for doubtful accounts	26	457
Gain on sales of raw materials	92	155
Other	221	263
Total non-operating income	899	1,802
Non-operating expenses		
Interest expenses	609	537
Financial fees	274	273
Foreign exchange losses	489	-
Other	368	220
Total non-operating expenses	1,742	1,032
Ordinary income	5,345	5,944
Extraordinary income		
Gain on insurance adjustment	193	-
Total extraordinary income	193	-
Extraordinary loss		
Loss on disposal of non-current assets	607	677
Impairment loss	419	421
Loss on business withdrawal	-	907
Loss on liquidation of subsidiaries and associates	334	-
Other	81	-
Total extraordinary losses	1,443	2,006
Income before income taxes	4,095	3,938
Income taxes – current	457	819
Income taxes – deferred	1,278	(254)
Total income taxes	1,736	564
Net income	2,359	3,373
Profit attributable to owners of parent	2,359	3,373

Consolidated Statement of Comprehensive Income

(Unit: millions of yen)

	Previous consolidated FY (April 1,2019 to March 31,2020)	Current consolidated FY (April 1,2020 to March 31,2021)
Net income	2,359	3,373
Other comprehensive income		
Valuation difference on available-for-sale securities	(907)	120
Foreign currency translation adjustment	166	(48)
Remeasurements of defined benefit plans	139	223
Share of other comprehensive income of entities accounted for using equity method	60	(21)
Total other comprehensive income	(540)	274
Comprehensive income	1,819	3,647
(Comprehensive income attributable to owners of parent)	1,819	3,647

Consolidated Statement of Changes in Net Assets

Previous consolidated FY (April 1,2019 to March 31,2020)

(Unit: millions of 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	23,419	(722)	76,744	477	(1,443)	(442)	(1,408)	75,335
Changes of items during period										
Dividends of surplus			(479)		(479)					(479)
Profit attributable to owners of parent			2,359		2,359					2,359
Purchase of treasury shares				(5)	(5)					(5)
Disposal of treasury shares		0		0	0					0
Net changes of items other than shareholders' equity						(907)	227	139	(540)	(540)
Total changes of items during period	-	0	1,879	(5)	1,874	(907)	227	139	(540)	1,334
Balance at end of period	43,420	10,627	25,298	(727)	78,618	(429)	(1,216)	(302)	(1,948)	76,669

Current consolidated FY (April 1,2020 to March 31,2021)

(Unit: millions of 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	25,298	(727)	78,618	(429)	(1,216)	(302)	(1,948)	76,669
Changes of items during period										
Dividends of surplus			(799)		(799)					(799)
Profit attributable to owners of parent			3,373		3,373					3,373
Purchase of treasury share				(3)	(3)					(3)
Disposal of treasury shares					-					-
Net changes of items other than shareholders' equity						120	(70)	223	274	274
Total changes of items during period	-	-	2,573	(3)	2,570	120	(70)	223	274	2,845
Balance at end of period	43,420	10,627	27,872	(730)	81,189	(308)	(1,286)	(78)	(1,674)	79,515

Statement of Consolidated Cash Flows

(Unit: millions of yen)

	Previous consolidated FY (April 1,2019 to March 31,2020)	Current consolidated FY (April 1,2020 to March 31,2021)
Cash flows from operating activities		
Income before income taxes	4,095	3,938
Depreciation and amortization	4,856	5,052
Impairment loss	419	421
Loss on business withdrawal	-	907
Loss on liquidation of subsidiaries and associates	334	-
Increase (decrease) in allowance for doubtful accounts	565	(436)
Increase (decrease) in net defined benefit liability	211	(69)
Increase (decrease) in provision for loss on liquidation of subsidiaries and associates	(0)	-
Increase (decrease) in provision for environment and safety improvement	(874)	(262)
Increase (decrease) in other provisions	159	(362)
Interest and dividend income	(343)	(289)
Interest expenses	609	537
Foreign exchange losses (gains)	31	(68)
Share of (profit) loss of entities accounted for using equity method	(131)	(34)
Loss (gain) on disposal of noncurrent assets	180	148
Decrease (increase) in notes and accounts receivable – trade	1,696	(2,155)
Decrease (increase) in inventories	(7,245)	(627)
Decrease (increase) in other current assets	(1,228)	942
Increase (decrease) in notes and accounts payable – trade	2,387	(3,187)
Increase (decrease) in other current liabilities	(920)	913
Other	(247)	(25)
Subtotal	4,556	5,341
Interest and dividends income received	340	268
Interest expenses paid	(601)	(571)
Proceeds from insurance income	302	27
Payments for loss on disaster	(282)	-
Income taxes paid	(997)	(315)
Cash flows from operating activities	3,317	4,749

(Unit: millions of yen)

	Previous consolidated FY (April 1,2019 to March 31,2020)	Current consolidated FY (April 1,2020 to March 31,2021)
Cash flows from investing activities		
Purchase of investment securities	(140)	(12)
Purchase of non-current assets	(6,716)	(6,150)
Proceeds from sales of noncurrent assets	107	92
Payments of loans receivable	(353)	(227)
Collection of loans receivable	159	142
Other	21	(5)
Cash flows from investing activities	(6,922)	(6,162)
Cash flows from financing activities		
Net increase (decrease) in short-term loans payable	(68)	168
Proceeds from long-term loans payable	12,150	13,400
Repayments of long-term loans payable	(11,959)	(7,937)
Proceeds from issuance of bonds	2,100	3,100
Redemption of bonds	(390)	(684)
Repayments of lease obligations	(534)	(491)
Repayments of installment payables	(261)	(393)
Dividends paid	(479)	(799)
Net decrease (increase) in treasury share	(4)	(3)
Cash flows from financing activities	552	6,358
Effect of exchange rate change on cash and cash equivalents	(5)	69
Net increase (decrease) in cash and cash equivalents	(3,058)	5,015
Cash and cash equivalents at beginning of period	23,983	20,925
Cash and cash equivalents at end of period	20,925	25,941

1920–1945:

The Spirit of Challenge in Our DNA



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.



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.

1945–1960:

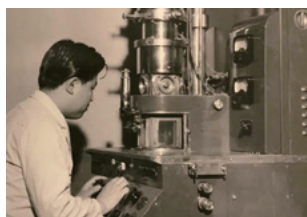
The Curtain Rises on a New Era



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



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



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

1960–1990:

Reaching Out to Global Markets



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



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.



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

1990–2010:

Social Responsibility as a Global Citizen



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



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.

2010–2020:

Becoming a Strong, Trusted Chemical Company



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



ISK enters the agrochemical business in Brazil and India, strengthening its global competitiveness.



2018 ISK receives approval for domestic manufacture and sale of the world's first anti-pancreatitis agent for dogs. In 2020, ISK celebrates the 100th anniversary of its founding.



Company Profile

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	83.1 billion yen (Fiscal year ending March 31, 2021)
Number of Employees	1,149 (As of March 31, 2021)

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

Affiliated companies

(4 companies in Japan)

ISK BIOSCIENCES K.K.
ISHIHARA TECHNO CORPORATION
FUJI TITANIUM INDUSTRY CO., LTD.
ISK ENGINEERING PARTNERS CORPORATION

(8 companies outside Japan)

ISK AMERICAS INCORPORATED
ISK BIOSCIENCES CORPORATION
ISK BIOCIDES, INC.
ISK ANIMAL HEALTH, LLC
ISHIHARA CORPORATION (U.S.A.)
ISK MAGNETICS, INC.
ISK BIOSCIENCES EUROPE N.V.
ISK TAIWAN CO., LTD.

Other Affiliated Companies

(4 companies in Japan)

ISHIHARA SANZO KAISHA, LTD.
ISHIHARA KOSAN CO., LTD.
GENOMIDEA INC.

HOKUSAN CO., LTD.

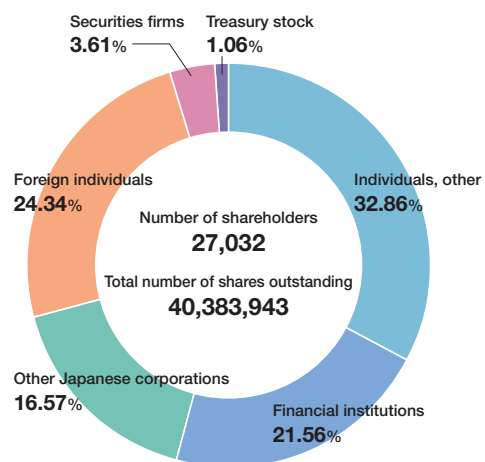
(10 companies outside Japan)

BELCHIM CROP PROTECTION N.V.
SUMMIT AGRO USA, LLC
ISK BIOSCIENCES DO BRASIL DEFENSIVOS AGRICOLAS LTDA.
ISK KOREA CORPORATION
ISK BIOSCIENCES KOREA LTD.
ISK BIOSCIENCES (THAILAND) LTD.
ISK BIOSCIENCES INDIA PVT. LTD.
ZHEJIANG ISK & TAURUS CHEMICAL CO., LTD.
ISK (SHANGHAI) CHEMICAL CO., LTD.
AVC CHEMICAL CORP.

Stock Information (As of March 31, 2021)

Total Number of Shares Authorized	100,000,000 shares
Total Number of Shares Outstanding	40,383,943 shares
Number of Shareholders	27,032
Stock Exchange Listing	Tokyo Stock Exchange, First Section
Stock Code	4028

Shareholder Composition



Total Shareholder Return

(Unit: %)

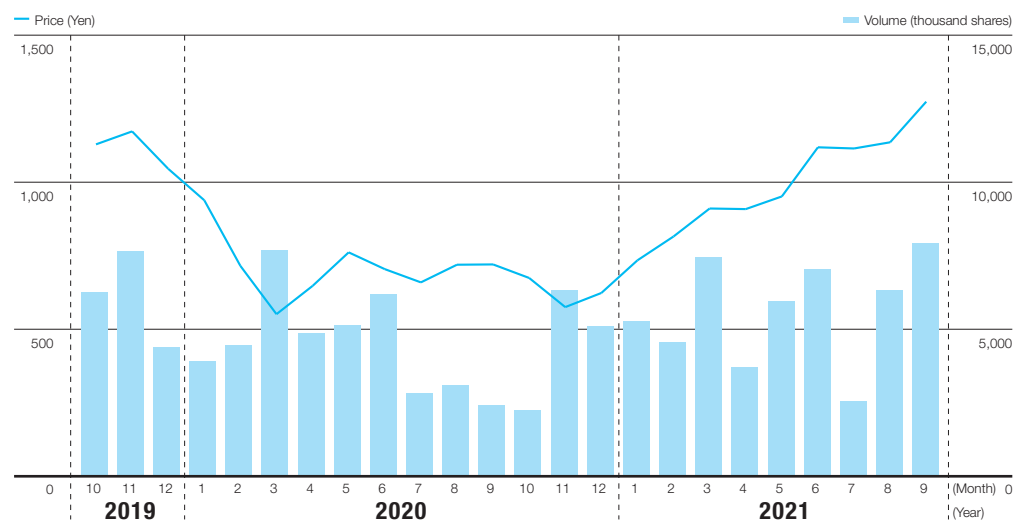
	FY2016	FY2017	FY2018	FY2019	FY2020
ISK	144.5	169.1	148.1	75.8	124.8
TOPIX	114.7	132.9	126.2	114.2	162.3
TOPIX Chemical	128.3	158.9	152.4	141.6	191.4

Major Shareholders

Shareholder	Investment in ISK	
	Number of shares held (thousands)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (trust account)	2,513	6.29
Custody Bank of Japan, Ltd. (trust account)	2,094	5.24
MITSUI & CO., LTD.	2,019	5.05
Toagosei Co., Ltd.	1,722	4.31
BNP PARIBAS SECURITIES SERVICES PARIS/JASDEC/FBB SEC/BELCHIM MANAGEMENT	1,450	3.63
UPL Japan GK	1,170	2.93
Ishihara Sangyo Kaisha Client Stock Ownership Association	955	2.39
Ishihara Sangyo Kaisha Employee Stock Ownership Association	809	2.03
INTERACTIVE BROKERS LLC	714	1.79
DFA INTL SMALL CAP VALUE PORTFOLIO	615	1.54

Note: The shareholding ratio is calculated after deducting 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 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 to long term.

Coverage

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

Period: Fiscal 2020 (April 1, 2020 to March 31, 2021)

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

Environmental Policy

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



- Basic policies on environmental protection and safety/health promotion
- Environment, safety, and health management system
- Environmental protection activities
- CSR report, Responsible Care data
- Others, joint efforts with government and outside organizations

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