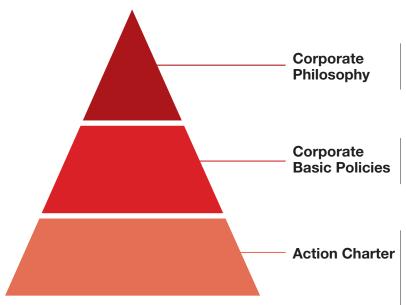


# **Basic Sustainability Policy**

The THK Group aims to both enhance corporate value through its core business and contribute to the creation of a sustainable and affluent society by carrying on its founding spirit, the Corporate Philosophy, from generation to generation, developing business activities that embody the Corporate Basic Polices in good faith and practicing voluntary actions based on the Action Charter.



Providing innovative products to the world and generating new trends to contribute to the creation of an affluent society.

- 1. Creating value and contributing to society
- 2. Being customer-oriented
- 3. Compliance with laws and regulations

Ten principles of behavior set forth for the THK Group to promote social and economic development as it becomes invaluable to society and shoulders social responsibility based on high ethical standards to create a sustainable society. These principles cover subjects that form the standard of how we execute our daily work, such as compliance, environmentalism, and respect for human rights.

### **Company Overview**

Trade name: THK CO., LTD.
Established: April 10, 1971

Headquarters: 2-12-10 Shibaura, Minato-ku, Tokyo, 108-8506

### **Report Overview**

Reporting period: January 1, 2022, to December 31, 2022 (including activities before and after this period)

Published: Annually in Q3 (the Sustainability Report and Annual Report covering the 2021 fiscal year were published

in June and May 2022, respectively)

Scope: THK CO., LTD. and its consolidated and unconsolidated subsidiaries

(Individual data scopes are given in the report)

References: This Integrated Report was compiled in accordance with the International Integrated Reporting Framework

developed by the Value Reporting Foundation (VRF); the Guidance for Integrated Corporate Disclosure and Company-Investor Dialogue for Collaborative Value Creation formulated by the Japanese Ministry of Economy, Trade and Industry; and the GRI Standards. A detailed table cross-referencing our reports against the

GRI Standards is available on the THK website.

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### **Regarding the Publication of the Integrated Report**

As of this year, the former Sustainability Report and Annual Report will be published as the Integrated Report with the goal of reporting on medium- to long-term value creation from both financial and non-financial perspectives.

The inaugural Integrated Report 2023 features THK's efforts to solve social problems, including initiatives to boost the corporate value of the THK Group and generate value for society. Information about specific activities at each business location are available on the THK website.

# Message from the CEO



### **Sustainability Management at THK**

As a company focused on creation and development guided by our corporate philosophy of providing innovative products to the world and generating new trends to contribute to the creation of an affluent society, we have striven to create a sustainable society by generating and proposing value demanded by our customers and the market. For instance, the "rolling" technology we developed for linear motion components reduced the amount of energy and lubricant used in comparison to traditional "sliding" motion, and the cage technology we developed later has enabled us to make more environmentally friendly products. Furthermore, we have used the technology we have cultivated over many years to develop and release products in new fields such as seismic isolation systems, wind power generation, contactless robots, and more. For these reasons, we take pride in knowing that our business itself is the practice of sustainability.

There are two aspects to consider when examining our business activities from a sustainability perspective: the negative impact of our energy consumption and CO<sub>2</sub> emissions and the positive impact of the direct contribution our products make to sustainability. It is the basic stance of our sustainability management to minimize the negative impact and strengthen the positive to create shared value with society. Based on this stance, we value having good relationships with our stakeholders and actively engage in efforts to solve the social challenges outlined by the SDGs while practicing CSV.1

In the aim to further bolster our sustainability management, we established a Sustainability Committee (along with a subordinate Sustainability Promotion Subcommittee) in October 2022, which redefined our material issues and identified our activities. We also became a supporter of the TCFD in February 2023 and released a disclosure on our website in March.

# **Business Environment and Future Forecast**

Recent years have been labeled as a VUCA<sup>2</sup> era where it has been difficult to predict the future. As this situation continues, rather than spending forever thinking of the "best" solution, management is being called upon to go with the "better" option so action can be taken immediately. All we can do is make a decision, act quickly, and then, based on the result, try to think of what will be better than "better," and keep repeating that process.

Especially in recent years, the coronavirus pandemic has prompted a large effort to be poured into revising business structures to reflect changes in the social environment. While the general demand for contactless and remote solutions has caused the overall economy to stagnate, it has also proved favorable in terms of accelerating automation and digitalization needs. Because we were able to reinforce our production capabilities even as we enacted thorough coronavirus countermeasures on a global level ahead of other companies, we were able to steadily capture this expanded demand and turn it into revenue. However, we were also faced with a global slowdown in resources and goods due to the situation in Ukraine alongside a downturn in investment activity due to increased interest rates that were designed to combat inflation.

As the global supply chain faces disruptions, businesses are pressed by the need to shift away from the traditional approach of producing and supplying products in the globally optimal location and instead create procurement and production structures close to areas of consumption. Producing in areas of demand through full-scale globalization has always been our basic policy, and it is thanks to having established local procurement structures in each area that we have been able to minimize the impact from these kinds of supply disruptions. We have also accelerated the introduction of equipment at our new THK India factory, which began operating in November 2021, and we are planning to continue ex-

<sup>1</sup> CSV is an abbreviation of "creating shared value." This is a strategy of using a company's strengths to solve social challenges and lead to sustained corporate growth.

<sup>&</sup>lt;sup>2</sup> VUCA stands for volatility, uncertainty, complexity, and ambiguity. It describes a condition in which it is difficult to predict the future.

panding our production lineup. In addition, we continue to bolster our supply structure through means such as building new facilities on the grounds of THK Changzhou and THK Liaoning in China as well as THK NIIGATA in Japan.

Looking to the future, as supply chain issues disappear, we anticipate that investments in automation will accelerate and demand will recover at a surprising pace. However, this is predicated on the condition that international conflicts such as the situation in Ukraine start settling down. We will continue to keep an eye on changes in our business environment from a global, multilateral perspective.

### Reflecting on the 2022 Fiscal Year

Looking back on our 2022 results with this external environment in mind, this was a year where the particular natures of our industrial machinery business and automotive and transportation business came to the fore.

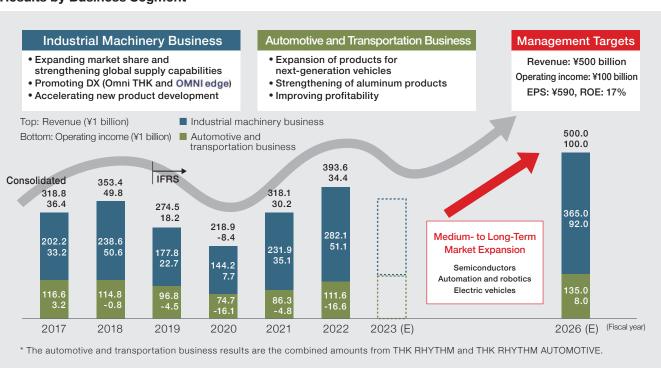
First, in our industrial machinery business, which constitutes about 70% of our revenue, we saw an expansion of automation and labor-saving needs in order

to enable social and economic activity in a contact-free environment. This, in conjunction with greater investments into semiconductor manufacturing equipment and other elements of the electronics sector and electric vehicle sector, caused the demand for THK products to grow significantly.

Conversely, in our automotive and transportation business, which constitutes the remaining approximately 30% of our revenue, factors affecting our automotive manufacturer customers such as semiconductor and other parts shortages, reduced production due to regional lockdowns in China, and rising steel and energy prices had a significant impact on our revenue and operating income, and we recorded impairment losses totaling ¥13.6 billion.

As a result, our consolidated revenue increased 23.7% year on year to ¥393.6 billion, and our operating income increased 13.8% during the same period, reaching a total of ¥34.4 billion. Shareholder dividends at the end of the period stood at ¥50, so the payout ratio for the entire fiscal year would be 30% of the plan at the beginning of the period, based on a calculation ex-

### **Results by Business Segment**



**About THK** 

**Value Creation** 

cluding the impact of the impairment losses, and annual dividends reached a record high of ¥87 (with a 50.4% payout ratio).

Although it was forecast that we would experience a loss in revenue and profit in 2023 due to short-term demand adjustments in the electronics sector, in addition to promoting various activities to capture the demand that is expected to increase over the medium to long term for our industrial machinery business and achieving, maintaining, and improving profitability through organizational restructuring in our automotive and transportation business, we are working to improve the added value of our existing products and expand our next-generation automotive products in order to increase our profits in 2024 and beyond.

### **Growth Strategies**

Under our five-year plan ending in 2026, our management targets are a revenue of ¥500 billion and an operating income of ¥100 billion. In addition to these targets, the metric that we value most is our market share.

This is because securing the top position in the market allows you to quickly discover more customer needs than other companies, and using that information to earnestly develop products lets you heighten your competitiveness. This is also why I tell my staff on a daily basis that no matter how high your profits are, if you are not at the top of the industry, things will not work out in the long run. To expand our business domains, we will continue to pour great effort into our three growth strategies: full-scale globalization, the development of new business areas, and a change in business style.

First, with regard to full-scale globalization, while the Japanese market is expected to shrink in the future, demand is estimated to grow further in the global market. In anticipation of domestic Japanese sales falling under 20%, we intend to further bolster our production, sales, and development activities in areas of demand throughout the world, particularly by strengthening our production structures in India and China, as I previously mentioned.

Next, for the development of new business areas, in addition to our traditional producer goods, we intend to

### **THK's Business**



propose THK products for use in fields related to consumer goods, such as automobiles, medical devices, railways, and aircraft, as well as fields related to the mitigation of risks from natural disasters and climate change, such as seismic isolation and damping systems and renewable energy. Furthermore, as the working-age population declines, we are developing products and technology that can reduce labor needs in service industries such as logistics, retail, and restaurants.

Finally, for a change in business style, in pursuit of our vision to become a manufacturing and innovative services company, we are shifting away from a business model that only involves making and selling off things, instead moving toward one that also includes everything from before- to after-sales services. We are pushing forward a number of initiatives to expand our contact with not only machine manufacturers, but the end users of equipment as well.

### **Expanding Collaboration through ICT**

ICT (information and communication technology) and digital technology are essential for evolving into a manufacturing and innovative services company, and we are promoting DX (digital transformation) efforts to strengthen our before- and after-sales services.

In terms of before-sales services, we are pouring effort into utilizing Omni THK as a platform for communicating with customers. Omni THK can be used for investigating products, selecting models, requesting and obtaining quotes, looking up and downloading both drawings and CAD data, placing orders, and sharing delivery information in a timely manner, which boosts work efficiency and productivity both for THK and our customers.

For after-sales services, by implementing the "OMNI edge" IoT service for manufacturing that predicts equipment failure through a sensor installed onto a machine component, customers can reduce various types of loss experienced on the production floor and improve overall equipment effectiveness (OEE).

In addition to making the customer's work more efficient and expedient and strengthening collaboration with THK, these before- and after-sales services also

contribute to our aforementioned sustainability efforts by minimizing negative impacts and strengthening the positive. For instance, by expanding information sharing through Omni THK, we are able to minimize unnecessary transportation and limit the emission of CO2 from automobile use. As for **OMNI edge**, this service does not merely visualize the operational status of components. In addition to reducing the amount of lubricant and energy used, it also minimizes loss that arises from components breaking, which has the added effect of preventing waste in society.

As people have gained a better understanding of the loT in recent years, more customers are making plans for its implementation. Rather than being the type of service that requires users to prepare new equipment and systems to implement the loT, our system enables easy loT access by installing a sensor onto existing equipment in combination with a network platform. In addition to offering our lineup of physical products that contribute to society, by continuing to expand our lineup of services with such high added value, we aim to greatly assist with building a sustainable society while also satisfying many customers. This is precisely what we hope to accomplish by becoming a manufacturing and innovative services company.

### **Developing Talent That Creates Value**

Our DX efforts involve more than the services we provide to customers. They are also revolutionizing the way we do work at THK. Currently, we are identifying the things that must be done by people and things that computers and robots can be tasked with, and we are actively promoting alternative methods for the latter to rethink our traditional work style.

As automation and robotization advance, operators may become unnecessary on the production floor in the future, but greater importance will be assigned to roles such as technicians with artisan-level skills who can handle detailed tasks that machines and robots cannot replace, as well as production technicians who can optimize the structure of machines and production lines. In addition, there is an increasing need for digital talent that can create new systems and services that utilize

**About THK** 

Growth

digital technology as ICT advances. For our employees who have been working as operators, we hope that they will aim for the next level by either heightening their skills as artisans and production technicians or transforming into digital talent. As a company, we will also investigate ways to support this transition by enhancing our training and rethinking our evaluation system. We will need something like a merit pay structure, where an individual's level of contribution to the workplace receives greater weight and is compensated accordingly.

The important thing will be for each and every employee to steadily practice the three principles that make up the THK brand (Toughness, High Quality, and Know-how) and provide as much useful added value to the customer as possible.

That is why all of our employees at THK reflect thoroughly on these three principles from the day they join the company.

In addition, the development of the next generation of talent is a challenge not just for THK, but for all of industrial society. In April 2021, we celebrated our 50th anniversary. As a special project for the occasion, we began utilizing the expertise and know-how we have cultivated over the years as a way to develop the next generation of industry talent. In 2017, we began our THK Education Outreach Program that seeks to foster future creator and developer talent among middle and high school students, and in 2021, we launched EntSherpa, our technical support service for start-up companies.

### **Driving Continuous Industry Advance**ment through Value Co-Creation

We are just now embarking on a new path toward our 100th anniversary. The reason our company has lasted so long is thanks to the support we have received from all of our stakeholders, and I would like to take this moment to express my gratitude.

The words our founder passed down—"Always look toward your future dreams and goals and do your best to accomplish what is needed in the present moment" remain etched in my heart, and we touch on and examine them now and again as a company. In order to



"make each moment count," we need to craft a solid vision of the future, and even as we respond quickly to changes in this unpredictable VUCA era, it is critical that we have a long-term vision for 10 to 20 years down the road rather than chasing immediate profits.

Just as our products continue working for an extended period of time at our customers' locations, we have continued to focus on the long term, and that is precisely why we have been able to cultivate trust among our customers and grow to our present scale. Synergy and co-creation with the customer is something that can only arise out of long-term, trusting relationships. As we continue to keep an eye on the future of industry and our surrounding global environment, we will strive to achieve sustainable advancements for industrial society.

# THK's History

### 1971 onward

# Establishment and the Early Years

Around this time, linear motion was considered difficult to achieve in machine components through rolling contact, and it primarily came from sliding contact instead. In 1971, THK developed the ball spline, which enabled a higher level of linear motion precision and performance. This ball spline was the predecessor to THK's current mainstay product, the LM Guide, which was first introduced in 1972.

In 1978, the Company's products were adopted by a U.S.-based pioneer of the machining center and world-class leader of its day. This breakthrough was the catalyst for the increased use of the LM Guide in machine tools.

#### 1980 onward

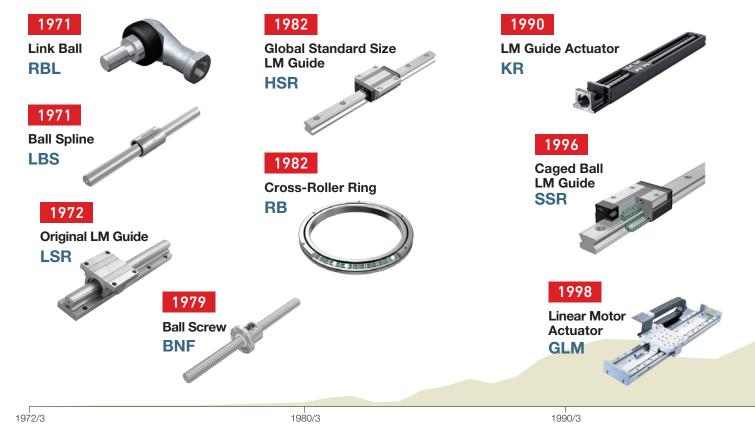
### **Developments in FA**

The demise of heavy industry pushed technology-based industries, such as the automotive, semiconductor, and home appliance industries, increasingly to the fore. Buoyed by depreciation in the value of the yen as well as the outstanding quality of products manufactured in Japan, export volumes to Europe and the United States climbed steadily, creating a need to produce large volumes of high-quality products. With FA (factory automation) advancing across production front lines, machine tool production volumes increased, and the proportion of advanced machine tools with NC (numerical control) saw steady growth. Against this backdrop, the application of the LM Guide experienced explosive growth.

### 1990 onward

### The Rise of the Electronics Industry

As use of the internet spread, the core of industry began shifting toward information technology and software. Under these circumstances, the use of the LM Guide in semiconductor manufacturing equipment surged dramatically, in line with the increase in semiconductor demand. As manufacturing became more globalized and demand for THK products expanded around the world, THK established a production facility in the United States, creating a structure that could promptly respond to local needs.



**Revenue** (Millions of yen) 1972–1990: Non-consolidated net sales 1991–2022: Consolidated revenue Since its founding in 1971, THK has committed to the development of numerous products as a company focused on creation and development guided by the corporate philosophy of providing innovative products to the world and generating new trends to contribute to the creation of an affluent society. In 1972, THK released the LM Guide, which was the first machine component to use an original concept and innovative technology to achieve linear motion through rolling motion. As a result, THK today introduces many innovations that are utilized in all types of industrial equipment, not limited only to machine components vital to the mechatronics sector.

#### 2000 onward

### **IT Revolution**

Amid the proliferation of mobile devices and digital home appliances, as well as the upswing in demand for semiconductor, flat panel display, and other similar manufacturing equipment, there was a rise in the use of the LM Guide, especially the second-generation Caged Ball LM Guide. In addition, THK set up sales and production bases in China and other Asian regions where market expansion was anticipated, thereby establishing regional sales and production structures in Japan, Europe, the Americas, and Asia.

#### 2010 onward

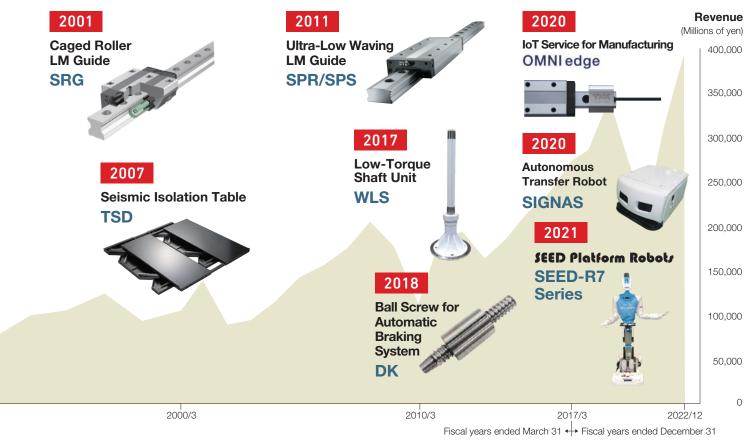
### **Digital Innovation**

Along with the rapid advancement of new technologies such as AI (artificial intelligence) and the IoT (Internet of Things), the use of smartphones, EV(electricvehicles), ande-commerce expanded. Due to these trends, demand increased for THK products used in automation and robotization. Furthermore, expanding its business from capital goods to consumer goods, THK developed and supplied products for CASE-related automobiles, seismic isolation and damping systems, next-generation robots, and renewable energy.

### **Toward a New Era**

### Transforming into a Manufacturing and Innovative Services Company

As the business environment around us changes dramatically, we are transforming ourselves into a manufacturing and innovative services company. Instead of simply creating things, we will expand our business to include everything from before to after the sale. Furthermore, as we accelerate our efforts in our industrial machinery business and automotive and transportation business in order to achieve our 2026 management targets, we will strive toward long-term growth and improvement in our corporate value in addition to the achievement of a sustainable society.

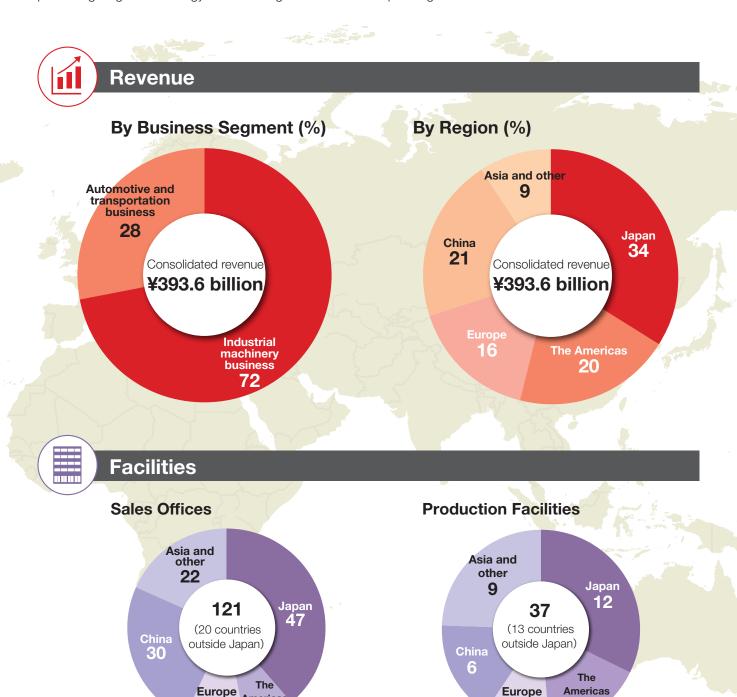


Due to the change in the fiscal year period, the 2017 fiscal year data reflects a modified reporting period that includes 9 months from consolidated companies whose fiscal years ended in March and 12 months from consolidated companies whose fiscal years ended in December.

The THK Group decided to adopt IFRS beginning with the 2019 fiscal year. For the purposes of comparison, the results for the 2018 fiscal year are also noted in accordance with IFRS.

# THK by the Numbers

THK's business consists of an industrial machinery segment focused on the development, manufacture, and sale of machine component parts, such as the LM Guide, and an automotive and transportation segment focused on the development, manufacture, and sale of vehicle steering, suspension, and braking parts. With the majority of its revenue, facilities, and employees being outside Japan and global demand being expected to grow over the long term, THK is promoting its growth strategy of full-scale globalization and expanding its business.



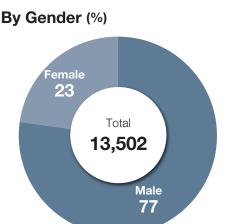
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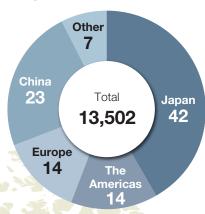
**Americas** 



### **Employees**





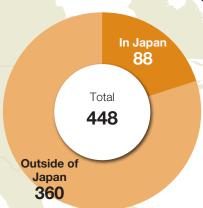




### **Intellectual Property Holdings**



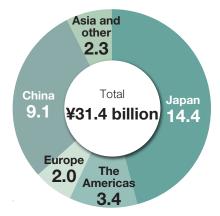
### **Number of Published Holdings**



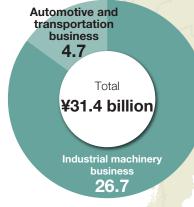


### **Capital Investments**

### By Region (Billions of yen)



### By Business Segment (Billions of yen)



- \* Each graph shows the results from the 2022 fiscal year.
- \* The numbers for the automotive and transportation business are the combined values from THK RHYTHM and THK RHYTHM AUTOMOTIVE.
- \* Capital investments include property, plant, and equipment investments only.

### TCFD Disclosure

As of February 2023, in an effort to combat climate change as a material issue connected to decarbonization and the realization of a recycling-oriented society, the THK Group has become a supporter of the TCFD (Task Force on Climate-Related Financial Disclosures) recommendations. We conducted an analysis of the impact of climate change in accordance with TCFD recommendations, which are centered on the four areas of governance, strategy, risk management, and metrics and targets.

#### Governance

THK has established a Sustainability Committee, headed by the CEO, that investigates and discusses risks, opportunities, and responses related to climate change and acts as an advisor to the Board of Directors. As an organization beneath the Committee, the Sustainability Promotion Subcommittee analyzes scenarios related to climate change risks and opportunities in accordance with TCFD recommendations. The Committee confers on the results of the analysis performed by the Subcommittee, determines measures to respond to climate change, and monitors the progress. Based on the items discussed and resolutions determined by the Committee, the Board of Directors receives and discusses reports and proposals as appropriate and provides general supervision for the climate change efforts of each division.

### Risk Management

In terms of overall risk management, the Risk Management Committee, which serves as an advisor to the Board of Directors, comprehensively and exhaustively identifies and assesses risks, evaluates their severity, and determines the priority for addressing them in accordance with risk management regulations. For risks specifically related to climate change, the Sustainability Committee and Sustainability Promotion Subcommittee conduct an analysis of scenarios specific to climate change, identify risks, and evaluate them in order to determine countermeasures.

Based on the risks and measures identified by the Risk Management Committee and the Sustainability Committee, the Board of Directors coordinates the impact of climate change on the business.

#### **Metrics and Targets**

In August 2021, the THK Group formulated the following medium-term and long-term targets for reducing greenhouse gas emissions in order to combat global warming.

### **Medium-Term Target**

CO<sub>2</sub> emissions in 2030: 50% of 2018 levels

Scope: THK Japan and Group companies in Japan

2018 emissions: 106,514 tons of CO<sub>2</sub> 2030 target: 53,257 tons of CO<sub>2</sub>

### **Long-Term Target**

CO<sub>2</sub> emissions in 2050: Net zero\*

Scope: Entire THK Group

Based on these targets, the THK Group will develop products that further contribute to energy and labor savings, continue conducting its business with environmental considerations in mind, and work to achieve a sustainable and affluent society.

<sup>\*</sup> Net-zero emissions: Achieving a balance between man-made CO2 and greenhouse gas emissions with their removal by carbon sinks such as forests.

### **Strategy**

Based on 1.5°C and 4°C climate change scenarios proposed by the IEA (International Energy Agency) and IPCC (International Panel on Climate Change), the THK Group has been analyzing scenarios primarily with regard to its Japanese industrial machinery business and automotive and transportation business in consideration of their long-term impact up to 2050 in order to investigate strategies and the resilience of those strategies with reference to climate change risks and opportunities.

- \* 1.5°C scenario: Scenario in which regulations for minimizing global warming are strengthened and market changes are enacted (IEA-NZE, IPCC-AR6 (Sixth Assessment Report)-SSP1-1.9, etc.)
- \* 4°C scenario: Scenario in which physical impacts such as extreme weather events result from global warming (IPCC-AR5 (Fifth Assessment Report)-RCP8.5, etc.)

### **Primary Climate Change Risks/Opportunities and Responses**

Scenario	Cause	Change	Risk/ Opportunity	Level	Impact on THK	THK's Response
	Introduction of carbon taxes	Increased procurement costs	Risk	Major	The introduction of carbon taxes will cause raw material price increases to be passed on to THK, and procurement costs will rise.	Reduce raw material input     Switch to raw materials with low carbon taxes
		Increased operating costs	Risk	Major	The introduction of carbon taxes will cause carbon tax payments to increase based on Japanese Scope 1 and Scope 2 emissions.	Develop energy-saving production technology     Transition to low-carbon, non-fossil fuel energy
	Change to renewable energy	Increased energy procure- ment costs	Risk	Minor	The change to renewable energy will increase energy procurement costs.	Procure renewable energy internally by installing solar power generation systems
1.5°C	Increased need for energy savings	Increased demand for environmentally friendly technology solutions	Opportunity	Major	There will be more equipment designs, fabrications, modifications, and product demand for automation and efficiency improvements for the purpose of boosting energy efficiency.	Strengthen provision of THK products that contribute to energy savings (LM Guide, electric actuators, unit products, etc.)
		Increased business opportunities in semiconductors	Opportunity	Major	Business opportunities will increase for the manufacture of semiconductor manufacturing equipment components, particularly involving power semiconductors, which form the core of energy savings.	Establish a development, pro- duction, and sales structure that can respond promptly and flexibly
		Increased demand for failure diagnosis/predictive failure detection service	Opportunity	Minor	Demand will increase for a failure diagnosis/predictive failure detection service that utilizes the IoT and helps boost productivity and reduces energy loss.	Expand IoT services that boost productivity and strengthen sales activities and solutions that utilize such services
	Advancement of electric vehicles	Increased demand for electric vehicle components	Opportunity	Major	As more vehicles become electric, new types of products become required, and demand for THK products will increase.	Establish a development, production, and sales structure that can respond promptly and flexibly     Plan new business
	Expansion of environmental business	Increased ESG investment	Opportunity	Minor	Expanding THK's business in environmental fields will capture the attention of investors and make them evaluate THK more favorably, and ESG investment will increase.	Establish a development, production, and sales structure that can respond promptly and flexibly     Actively disclose information and strengthen communication with stakeholders
4°C	Serious damage from weather-related disasters	Supply chain interruptions	Risk	Minor	Supply of raw materials will be interrupted if the supplier suffers a disaster.	Decentralize raw material suppliers     Secure alternative suppliers
		Increased costs from global warming	Risk	Minor	Rising temperatures will cause air conditioning costs to increase for factories, distribution centers, and offices.	Improve heat insulation performance of buildings

## Value Creation













Social Challenges/Changes

Labor

shortages

Global

warming

Natural disasters

and

infectious

diseases

**Inputs** 

# THK's capital (2022 fiscal year)

 Equity attributable to owners of the parent:

#### ¥331.8 billion

 Equity ratio attributable to owners of the parent:

59.2%

• Employees:

13,502

Foreign employee ratio: 58.3%

• Female employee ratio: **22.7%** 

Employees certified with National Trade Skill Test & Certification (Japan)

• Male: **1,465** 

• Female: **46** 

### **Locations in Japan**

• Sales: **47** 

• Production: 12

### Locations outside of Japan

• Sales: **74** 

• Production: 25

• R&D facilities:

R&D expenses:

¥5.8 billion

3

### Intellectual property holdings

• Registered: 2,486

Published: 448

### Corporate

Providing innovative products to the trends to contribute to the creation



Advancement of digital technology As the business environment changes at a rapid pace, in accordance with our corporate philosophy, we will effectively utilize our diverse capital and work to solve social challenges in order to grow as a corporation while also contributing to the creation of an affluent and sustainable society.

Furthermore, the entire company will strive as one team to achieve the 2026 management targets: a consolidated revenue of ¥500 billion and an operating income of ¥100 billion. • p. 28-29

### **Philosophy**

world and generating new of an affluent society.



Development/ Design



**Distribution** 

**Production** 

foundation

environment, etc.) • p. 42-65

### **Outputs**

**About THK** 

### Industrial machinery business

p. 30-31

- Linear and rotary components
- Service robots
- Seismic isolation and damping systems

# Automotive and transportation business p. 32-33

- Next-generation auto parts
- Linkage and suspension parts

### **Promotion of DX**

p. 34-37

- Omni THK
- OMNI edge

#### Talent development

**■** p. 60

- THK Education Outreach Program
- EntSherpa (startup company support)

### Outcomes

### **Labor shortages**

- Supporting automation and labor savings
- Participating in proof-of-concept trials for service robots

### **Global warming**

- Energy savings through products/services
- Zero emissions result: 0.14%
- Installing solar panels (Solar power generated: 4,206 MWh)
- Installing high-efficiency equipment
   p. 63

### Natural disasters and infectious diseases

- Reducing risk of earthquake damage
- Participating in proof-of-concept trials for contactless robots

### Advancement of digital technology

- Boosting customers' overall equipment effectiveness (OEE)
- Improving value provided to the customer and boosting internal efficiency and productivity
- Supplying parts for semiconductor manufacturing equipment

# Strengthening the Value Chain





# Policies and Mindset

- Developing products based on core technology
- Developing products that aim to solve customer needs and concerns
- Promoting green, global procurement in the optimal locations
- Accelerating work speed and boosting work efficiency with AI
- Working with suppliers to establish a structure to increase production and promote improvement activities

### **THK's Strengths**

- Developing products that meet market needs
- Cultivating new markets with core technology
- Extensive product lineup
- Services such as technical calculations based on operating conditions
- Building a production framework with business partners
- Achieving high durability and long service life with proprietary materials

# Responding to geopolitical risks

 Establishing global R&D facilities (China: 1, Germany: 1)

- Strengthening global procurement framework
- Distributing disaster risk by purchasing from multiple suppliers
- Cultivating new suppliers and building a robust system of collaboration with existing suppliers

# Activities to promote ESG

- Actively promoting the shift from sliding motion to rolling
- Developing products to replace hydraulic with electric
- Developing products that require less maintenance
- Developing products that can handle high speeds and fast takt times
- Developing products related to renewable energy
- Preemptively replacing materials based on each country's banned substance information
- Investigating compliance with domestic and international regulations
- Collaborating with all purchasing-related departments regarding legal requirements

# Future challenges to address

- Developing products to achieve carbon neutrality
- Refining core technology (long service life, highspeed performance, etc.)
- Effectively using renewable materials to reduce waste
- Promoting DX activities and strengthening collaboration with other THK departments

The global supply chain disruptions caused by the situation in Ukraine have resulted in major logistical challenges. It has always been our basic stance to produce in areas of demand when pursuing full-scale globalization, and thanks to the local procurement framework we established in each region, we have been able to minimize the impact of these kinds of supply delays. While international friction may continue to arise in the future, we will work to strengthen our value chain using a diversified approach in order to provide our customers with a stable supply of products.





### **Distribution**



### Sales

- Increasing productivity and improving customer satisfaction through on-time delivery
- Employing transportation methods that reduce CO<sub>2</sub> emissions
- Considering load efficiency and productivity in logistics
- Reducing CO2 emissions year on year
- Entering new markets
- Strengthening proposal-based sales

- Establishing a production structure in domestic and international areas of demand
- Establishing transportation methods that reflect feedback from business partners
- Brand strength as the top linear motion component manufacturer

- Establishing alternative production structures, including overseas factories, in case of a major disaster
- Securing transportation channels during a disaster
- Strengthening global collaboration
- Sales network covering Japan and other countries
- Compliance with laws and regulations related to security export control

- Activities to reduce CO2 emissions
- Holding regular energy conservation meetings to improve environmental awareness among employees
- Complying with ISO 14001/ISO 45001 and confirming environmental measures
- Reducing CO<sub>2</sub> emissions by utilizing reusable containers
- Promoting modal shifts and joint delivery
- Proposing electric and labor-saving products
- Conducting remote sales activities such as online visits

- Further efforts to reduce CO2 emissions
- Promoting energy-saving activities
- Promoting DX activities

- Selecting optimal shipping methods through DX
- Reducing labor needs by utilizing Al
- Entering new markets such as medicine and electric vehicles
- Developing new business such as seismic isolation and robots

# How THK Connects with Stakeholders

Our business is made possible through collaborative partnerships with all of our stakeholders, and we aim to solve challenges through active and continuous communication with all parties. We will continue to reflect the feedback of our stakeholders and strive for heightened corporate value and sustained growth.

Stakeholders	Customers	Shareholders and investors
Concerns and expectations	<ul> <li>Provision of appealing products</li> <li>Stable delivery of products</li> <li>Extensive support structure</li> </ul>	Medium- to long-term increase in corporate value
Sharing information	<ul> <li>THK website, Technical Support Site, etc.</li> <li>Sales activities, exhibitions, private shows, etc.</li> <li>Contact forms, chat messaging, etc.</li> <li>Omni THK</li> </ul>	<ul> <li>Integrated Report and Investor Relations section of the website</li> <li>General Meeting of Shareholders, financial results briefings, and meetings to exchange opinions with institutional investors</li> <li>IR information e-mail delivery service "RIMSNET"</li> </ul>
Activity results (2022)	• Exhibitions: 45 Private shows: 28	<ul> <li>General Meeting of Shareholders and two financial results briefings</li> <li>Interviews with institutional investors:         Approx. 250     </li> <li>Participated in international institutional investor conference</li> </ul>
Future challenges	<ul> <li>New products that respond to automation and other new types of demand</li> <li>Expanding global structure for supplying products</li> <li>Transforming into and becoming a full-fledged manufacturing and innovative services company</li> </ul>	Convincing institutional investors of growth potential in discussions focused on the medium to long term

Business partners	Employees	Local communities	Government
<ul> <li>THK's customer order trends</li> <li>Domestic and international production conditions</li> <li>Stable order volumes</li> </ul>	<ul> <li>Job satisfaction</li> <li>Good salary and benefits</li> <li>Personal growth</li> <li>Work-life balance</li> </ul>	<ul> <li>Participation in local community</li> <li>Restoration support after a disaster</li> <li>Environmental impact reduction</li> <li>Job creation</li> </ul>	Compliance with domestic and international laws and regulations     Tax payments     Active participation in industry-government-academia collaborations
<ul> <li>THK Association (online) seminars and exchanges</li> <li>THK Association status report meetings held at each production facility</li> </ul>	Internal notice boards, announcements, etc. Internal newsletter (THK GROUP NEWS)  Meetings, morning assemblies, etc. Employee parties and company retreats	• THK website	Consultations with relevant government agencies Participation in economic/industrial organization meetings Introducing products through proof-of-concept trials Collaborative research
<ul> <li>THK Association seminars held: 2</li> <li>Local THK Association status report meetings held (online) for each production facility: 7</li> </ul>	<ul> <li>Data utilization training</li> <li>English lessons</li> <li>Manager training</li> <li>International trainee orientation</li> </ul>	<ul> <li>Donated to Ukraine via Japanese Red Cross and People in Need (Czech Republic)</li> <li>Continued THK Education Outreach Program</li> <li>Cosponsored the Minato City Half Marathon 2022</li> </ul>	Completed various surveys     Participated in proof-of- concept trials (Kanagawa Prefecture and Aichi Pre- fecture)
Efforts aimed at reducing environmental impact	<ul> <li>Promoting diversity and inclusion</li> <li>Improving employee well-being (self-fulfillment)</li> </ul>	Sharing information with local communities     Reducing environmental impact of business activities	Sharing information for the purpose of industry- government-academia collaboration

# Sustainability Promotion Structure

Projects that involve the ESG challenges surrounding companies have recently attracted much attention. Additionally, with the revision of the corporate governance codes that accompanied the restructuring of the Tokyo Stock Exchange's market segments, sustainability disclosures have become essential. This is true for companies listed on the Prime Market in particular. Our company established the Sustainability Committee in October 2022 to act as advisors to the Board of Directors with the aim of establishing, instilling, and maintaining a sustainability promotion structure in order to improve our corporate values and create a sustainable, affluent society.

#### The Committee's Role

The Sustainability Committee is responsible for formulating policies, regulations, and manuals regarding sustainability, defining important challenges (material issues), goal setting and progress management, and matters related to information disclosure. The Committee also holds meetings at least once a year to report and provide proposals to the Board of Directors as necessary.

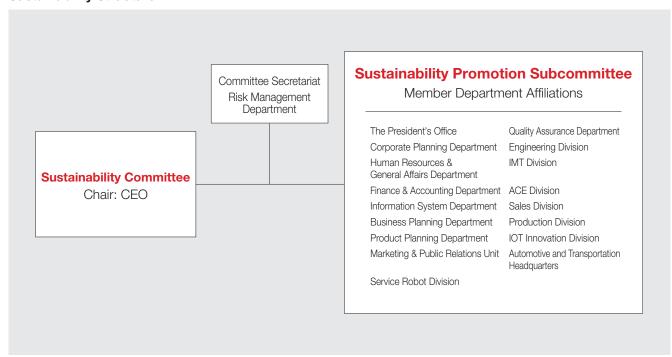
### **Committee Structure**

The Sustainability Committee is chaired by the CEO, with the rest of the committee membership being composed of eleven directors, including outside directors. The Risk Management Department serves as the secretariat for the Committee. Its subordinate body, the Sustainability Promotion Subcommittee, has an interdepartmental structure meant to spread awareness of issues to each department, and it is composed of 18 members from across 17 departments.

The Subcommittee, which is managed by the vice president, began its activities reviewing the previously established material issues in November 2021. By June 2022, it had held its sixth meeting and, through a lively exchange of ideas, redefined and reviewed the material issues.

Additionally, the Subcommittee performed an analysis and disclosed information in accordance with TCFD (Task Force on Climate-Related Financial Disclosures) recommendations for the material issue of climate change.

#### **Sustainability Structure**



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# Sustainability Promotion Subcommittee Chairman's Comment

### Moving toward Stronger Sustainability Management



Vice President and CIO

Toshihiro Teramachi

We view THK's business as an endeavor in CSV\* that solves society's problems, and we believe that the development of our business will promote sustainability management. By developing rolling linear motion components for machines using unique technology, we have made it possible to conserve energy by reducing frictional resistance to a minimum. To put it another way, since our founding, we have believed that having THK products used in a variety of fields and improving their function will aid in solving environmental issues.

As the president has already stated, we are pushing forward with sustainability projects as a company by transforming into a manufacturing and innovative services company that does not simply make things, but handles each process from before service to after service, with the aim of realizing a sustainable, affluent society.

### **Material Issues**

One of the aforementioned sustainability promotion projects is the creation of the interdepartmental Sustainability Promotion Task Force (currently the Sustainability Promotion Subcommittee) in November 2021. The four material themes below are the result of the proactive exchange of ideas undertaken by its 18 members.

#### Creating an affluent society and solving social issues through innovation

Society and the environment are the foundation of economic activity. Growing our business by aspiring to solve their problems through innovation is THK's most important mission connected to realizing our management philosophy.

#### 2. Decarbonization and realization of a recyclingoriented society

We are also investigating the realities of product life cycles beyond THK in terms of how customers use and dispose of our products, and we are pursuing a direction that aims at a recycling-oriented economy that is kinder to the environment.

### 3. Realization of a diverse and meaningful work environment

By accepting the many lifestyles and ways of thinking present in modern society, we are striving toward a world that doesn't leave anyone behind. It is part of the thinking behind the UN Global Compact that the realization of a sustainable society is possible through appropriate actions taken by companies exhibiting creative, responsible leadership for the sake of being good global citizens. For that reason, in an increasingly diverse society, companies have a responsibility to create a meaningful work environment for their employees.

### 4. Strengthening of a sustainable value creation platform

Naturally, realizing the above themes requires a foundation built on robust governance, compliance, and risk management structures.

### The Subcommittee's Role

The Sustainability Promotion Subcommittee defines the KPIs and KGIs for the four themes above and offers support both behind the scenes and in plain sight for concrete implementation of these themes as appropriate for each department. It also works to ensure that THK's sustainability activities spread internally and can operate on a deeper level. Accordingly, we must pay more attention to society than anyone else and act from a place of constantly considering what is expected of THK and how it is connected to our business. We have only begun to take such action, but I believe that we can push forward by remembering and taking pride in the fact that our company has contributed to society since its inception.

\*CSV is an abbreviation of "creating shared value." This is a strategy of using a company's strengths to solve social challenges and lead to sustained corporate growth.

#### **Material Issues**

In November 2021, an interdepartmental project to review material issues in light of the latest changes to the state of society and THK's internal environment was started with the Sustainability Promotion Subcommittee at its center. More concretely, the members of the Subcommittee had numerous exchanges of ideas that came out of discussions with their departments concerning various social issues surrounding the company. They evaluated and discussed things in terms of a horizontal "impact on business" axis and a vertical "societal demands and expectations" axis, created a matrix, and finally narrowed things down to the four themes and the accompanying 13 items. The redefined material issues were later approved by the Board of Directors in June 2022.

### **Process for Approving Material Issues**

### Phase 1 Create a material issue candidate list (November to December 2021)

While giving due consideration to THK's existing policies, the Subcommittee made a material issue candidate list (initially with 22 items) based on metrics from ESG evaluation bodies (FTSE and MSCI), investors (SASB¹ and TCFD), and other social metrics (SDGs and GRI²), consolidating duplicate and similar items from each of these.

#### **Material Issue List**

Grey highlight: Evaluation items for each metric

Light orange highlight: Items considered relatively important for evaluation in THK's industry

Category	Item	FTSE	MSCI	SASB	TCFD
	Climate change				
	Managing harmful substances				
Е	Recycling and conserving resources				
Е	Water resources				
	Biodiversity				
	Sustainable procurement (environmental)				
	Appropriate labor management				
	Promoting diversity				
	Talent development				
	Occupational health and safety				
S	Respecting human rights				
	Contributing to local communities				
	Quality and safety of products				
	Being customer-oriented				
	Sustainable procurement (social)				
	Corporate governance				
	Compliance				
G	Anti-corruption				
G	Risk management				
	Information security/Data privacy				
	Transparency of taxes				
	Solving social issues through business				

<sup>1</sup> SASB: Acronym for the Sustainability Accounting Standards Board, the American sustainability accounting standards council.

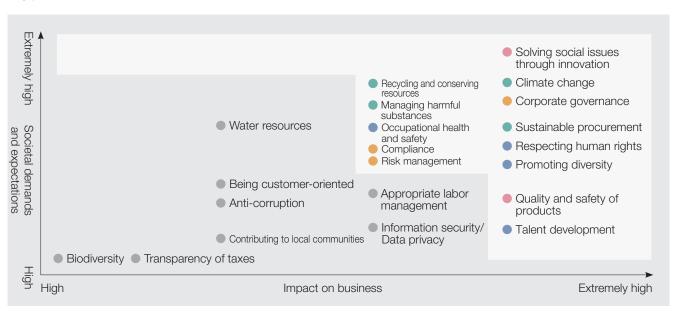
<sup>&</sup>lt;sup>2</sup> GRI: Acronym for the Global Reporting Initiative, the goal of which is to formulate a framework for international sustainability standards and information reporting.

Message from the CEO About THK TCFD Disclosure Value Creation Strategies Outside Director Interview

### Phase 2 Evaluate against societal and business standards (January to February 2022)

A matrix was created after a five-stage evaluation that plotted a "societal demands and expectations" axis provided by outside experts against an "impact on business" axis provided by THK.

#### **Matrix**



### Phase 3 Create a proposal for redefined material issues (March to May 2022)

The Subcommittee members held a discussion based on the Phase 2 evaluation results. After thoroughly examining the opportunities and risks these results held for long-term value creation, they then drafted a redefined material issue proposal.

### Phase 4 Approval by the Board of Directors (June 2022)

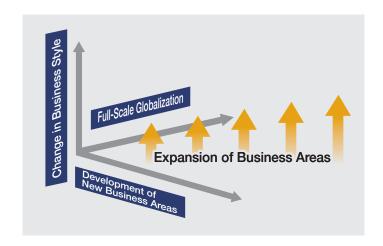
The Board of Directors approved the redefined material issue proposal generated in Phase 3.

### **Redefined Material Issues**

Topic	Item	
<ul> <li>Creating an affluent society and solving social issues through</li> </ul>	Solving social issues through innovation	
innovation	Quality and safety of products	
<ul> <li>Decarbonization and realization of a recycling-oriented society</li> </ul>	Climate change	
	Sustainable procurement	
	Recycling and conserving resources	
	Managing harmful substances	
	Respecting human rights	
Realization of a diverse and meaningful work environment	Promoting diversity	
healization of a diverse and meaningful work environment	Occupational health and safety	
	Talent development	
	Corporate governance	
<ul> <li>Strengthening of a sustainable value creation platform</li> </ul>	Compliance	
	Risk management	

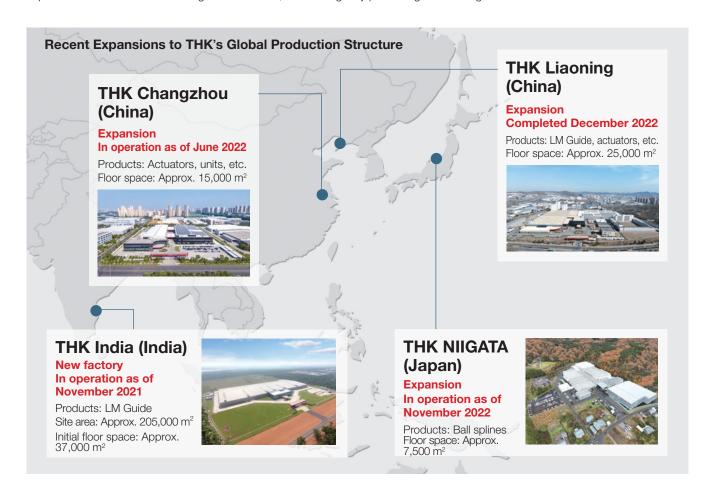
# Growth Strategies to Expand Business Domains

THK is committed to developing its business through three growth strategies: expanding its geographical range through full-scale globalization; broadening the range of its product applications through the development of new business areas; and fully utilizing AI, the IoT, robots, and other technologies through a change in business style.



### 1 Full-Scale Globalization

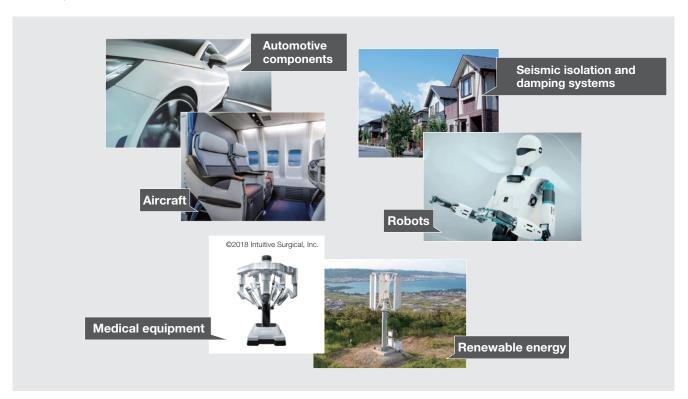
THK has established an integrated production and sales structure with facilities and operations close to centers of demand in order to produce and sell locally in four regions: Japan, the Americas, Europe, and Asia. We are working to expand our sales network and production structure in light of the medium- to long-term demand increases that have been forecast for China and other emerging markets in recent years. In developed countries, we are also enhancing our sales network in a bid to steadily capture demand amid expansion in our user base. Through these means, we are diligently promoting additional growth.



Message from the CEO About THK TCFD Disclosure Value Creation Strategies Outside Director Interview

### Development of New Business Areas

THK is actively working to develop new business areas in fields related to consumer goods, such as automobiles, medical equipment, aircraft, and robots, as well as fields related to the mitigation of risks from natural disasters and climate change, such as seismic isolation and damping systems and renewable energy. In order to capitalize on the vast potential in these industries, we are honing our abundant expertise and the core linear motion system technology we have cultivated over time to accelerate the pace at which we develop new business areas.



### Change in Business Style

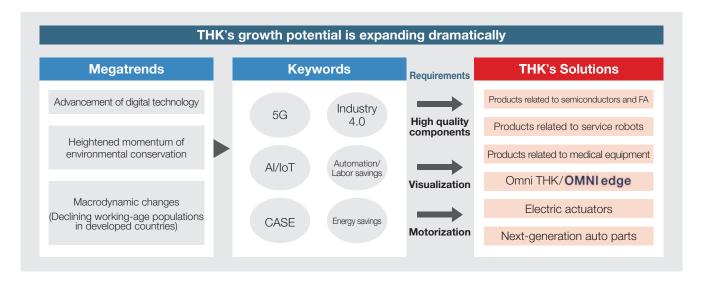
As digital technology rapidly develops, THK is also making efforts to further expand its business domains by ensuring the thorough use of new technologies such as AI, the IoT, and robotics in sales, production, and development. In this way, we are working to transform the frameworks and methods by which we do business.



# Management Targets

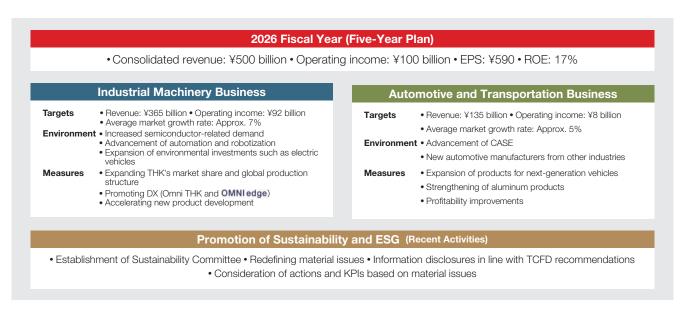
### Medium- to Long-Term Market Expansion

Looking at the social environment surrounding the THK Group, we are faced with challenges such as the rapid advancement of digital technology, the heightened momentum of environmental conservation, and declining working-age populations in developed countries as a result of macrodynamic changes. Under these circumstances, the keywords of 5G, AI, the IoT, CASE, Industry 4.0, automation, and labor and energy savings were born, increasing the importance of the various solutions our company provides as well as heightening growth potential.



### Management Targets (2026)

Driven by our growth strategies of full-scale globalization, the development of new business areas, and a change in business style, we are working to expand our business domains and will bring our vision to be a manufacturing and innovative services company clearly into focus. Furthermore, we will achieve growth that exceeds the aforementioned market growth that is expected in the medium to long term. When we announced the financial results for 2021, we set five-year management targets for that milestone, with 2026 being the final year.



### Initiatives to Achieve Targets

### **Industrial Machinery Business**

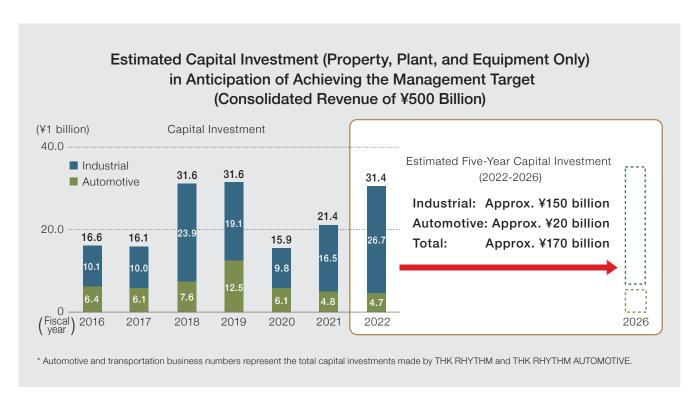
In the industrial machinery business, our targets are a revenue of ¥365 billion and an operating income of ¥92 billion. Based on past performance, we estimate that the average market growth rate is about 7% per year, and we predict the same growth rate through the 2026 fiscal year. The main driving forces for this growth are the increased demand for semiconductors, advancement of automation and robotization, and expansion of environmental investments such as electric vehicles, and this growth is expected to continue and grow in the medium to long term. Furthermore, we intend to achieve growth that exceeds this projected growth rate by promoting DX, including **OMNI edge**, an IoT service for manufacturing, and Omni THK, a communication platform for customers; expanding market share; and developing and launching new products in new fields.

### **Automotive and Transportation Business**

In the automotive and transportation business, our targets are a revenue of ¥135 billion and an operating income of ¥8 billion, assuming an average annual growth rate of about 5% in global automobile production. We have set a growth target that exceeds the growth of automotive manufacturing, as we will develop and launch new, next-generation automotive products that address the progress of CASE in the automotive industry and expand the supply of these products globally in addition to increasing the supply of existing products that contribute to smaller and lighter components as the shift toward electric vehicles accelerates. Furthermore, with regard to the urgent issue of improving the profitability of the automotive and transportation business, we will expedite efforts centered on the newly set-forth measures to reorganize the automotive and transportation business, with the aim of achieving an operating income margin that exceeds the target.

### Investments for Sustained Growth and Shareholder Returns

To achieve the targets we have set, we will need to make capital investments of approximately ¥150 billion in the industrial machinery business and approximately ¥20 billion in the automotive and transportation business over the five-year period from 2022 to 2026. However, we expect that our cash position will generally remain unchanged if we continue to maintain a payout ratio of 30%, taking into account an increase in working capital in addition to investments aimed at enhancing corporate value over the medium to long term, including R&D, DX promotion, talent development, and sustainability initiatives. With this as our base, share buybacks will be considered flexibly based on short-term capital needs and our cash position, taking the environment into consideration.



### **Our Business**

### **Industrial Machinery Business**

### Providing Customers with Reliable Products and Services

### Takashi Teramachi

Director and Senior Managing Executive Officer Senior General Manager of Industrial Machinery Headquarters



### **Our Business**

The industrial machinery business develops, manufactures, and sells primarily high-precision positioning linear motion components such as the LM Guide, ball screws, and ball splines alongside rotary components such as cross-roller rings. In addition to being adopted for use in semiconductor manufacturing equipment, machine tools, and industrial robots, these products are used in a variety of fields, including 3D printers, automated warehouses, robotic surgical systems, railways, aircraft, and both solar

and wind power generation equipment. We anticipate that the applications will continue to expand in line with increasing needs for high precision, high durability, automation, and labor and energy savings. In addition, we also deal in modular products such as actuators and units that combine machine elements, and our products have become essential for improving productivity and quality in the field of factory automation design and manufacturing. Led by Industry 4.0, a digital wave consisting of AI and the IoT has recently been sweeping through industrial sectors, and

### **Linear and Rotary Machine Component Business**



**Service Robot Business** 







**IoT Business** 



we have begun offering our **OMNI edge** IoT service for manufacturing, which is primarily aimed at machine users. Furthermore, we have started selling humanoid, transfer, and other robot systems aimed at eliminating labor shortages for customers in service industries.

### Reflecting on the 2022 Fiscal Year

With regard to our 2026 management targets, bolstered by the increase in semiconductor-related demand, the advancement of automation and robotization, and the expansion of electric vehicles and other environmental investments, we aim to utilize AI, the IoT, and robot technology alongside the machine component technology we have honed since our founding in order to fortify our position as a company that supports growing fields and achieve a revenue of ¥365 billion and an operating income of ¥92 billion.

In 2022, during the first year of the plan to achieve the 2026 targets, we achieved a record-high revenue of ¥282.1 billion (a 21.6% increase year on year) and an operating income of ¥51.1 billion (a 45.7% increase year on year) as a result of increased demand for semiconductors and robots, expanded manufacturing in the United States and China, and depreciation in the value of the yen. In terms of profitability, although we saw cost increases in raw materials, utilities, transportation, and labor, we were able to achieve a year-on-year increase in our operating margin by working to pass on such cost increases through our selling prices while also continuing to reduce costs and expand our production volumes. In 2023 and beyond, we anticipate there will be repeated, short-term fluctuations in demand for capital investment, and there will be increasing uncertainty in the management environment due to factors such as economic decoupling and labor shortages. Therefore, we will be agile in revising our regional production strategies and bolster our supply chain based on demand forecasts. At the same time, we will promote automation, robotization, and in-house solutions in our production processes in order to steadily expand our shipping volumes and strengthen our cost-competitiveness. In addition, as we actively invest in internal R&D, we will increase the added value we bring to the market by introducing new products and improve customer productivity and satisfaction. We will also promote digitalization that will reduce repetitive internal tasks in order to improve individual productivity. Furthermore, in addition to selling components to machine manufacturers, we will actively push forward with our service robot business and industrial IoT service for machine users to expand our business portfolio and boost our earning capacity.

### **Preventing Global Warming**

In recent years, the social issue of global warming has intensified due to the impact of greenhouse gases and man-made petroleum products. Since our founding, we have polished our LM Guide technology, which was a development that significantly reduced friction resistance by replacing traditional sliding motion with rolling motion. We will continue to conduct R&D and improve our product performance as a means to help reduce the energy consumption of customer equipment.

In addition to reducing the energy used by production processes at our factories, we aim to reduce CO<sub>2</sub> by utilizing renewable energy. We introduced solar power generation to our Yamagata and Yamaguchi plants in Japan and our Liaoning and Changzhou plants in China during 2022 (though the Yamagata and Liaoning plant systems first went online in 2023), and we plan to install new equipment at other factories in 2023 and beyond.

### **Future Business Developments**

In 2020, we released our **OMNI edge** IoT service for manufacturing, which can be retrofit onto equipment to reduce various types of loss and maximize Overall Equipment Effectiveness (OEE) in customers' production processes. By visualizing the status of machines and devices in a way that previous quantification methods could not, our previously released Predictive Failure Detection Al Solution for linear and rotary components as well as our Tool Monitoring Al Solution reduce various types of loss that accompany machine failure, tool changes, defects, and rework. They also help reduce the use of consumable parts and energy in manufacturing processes. We will continue to provide numerous solutions to contribute to our customers' GX (green transformation¹) efforts.

Within the industrial machinery business, all of our staff will work with vigor as we delve deeper into our growth strategies of full-scale globalization, the development of new business areas, and a change in business style. We will construct a framework to continuously provide reliable products and services to both machine manufacturers and users around the world, and in doing so, we will transform into a manufacturing and innovative services company. In addition, we will strive to contribute to the creation of an affluent society while valuing people and the global environment.

<sup>&</sup>lt;sup>1</sup> Green transformation: Measures aimed at revolutionizing socioeconomic systems in addition to making environmental improvements such as reducing the emission of greenhouse gases that contribute to global warming, environmental destruction, and climate change.

### Our Business

### **Automotive and Transportation Business**

### Strengthening Development of New Products That Meet Social Needs

### Nobuyuki Maki

Director and Senior Managing Executive Officer Senior General Manager of Automotive & Transportation Headquarters



#### **Our Business**

The Automotive & Transportation Headquarters is largely split into the following three business areas.

### 1. Development, Manufacture, and Sale of L&S (Linkage and Suspension) Parts

We create original designs for suspension links, ball joints, tie rod ends, and stabilizer links, which are important components that support the basic car functions of driving, turning, and stopping. The Group companies THK RHYTHM and TRA (THK RHYTHM AUTOMOTIVE) propose, manufacture, and sell these products to component manufacturers and our primary customers: automotive and truck manufacturers in Japan, North America, Europe, China, and other parts of Asia. In ad-

dition, our suspension links, ball joints, and tie rod ends are classified as critical safety parts. See the figure below for the mechanisms our parts are used in.

#### 2. AMC (Automotive Mechanical Components)

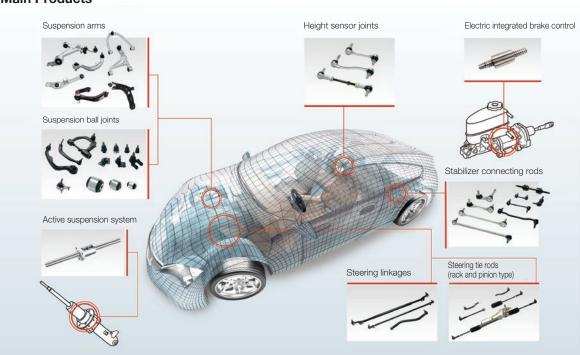
This business segment develops, manufactures, and sells ball screws for automatic brakes and electric parking brakes, active suspension units, and other parts that are essential to self-driving technology.

#### 3. Electric Actuator Development

We develop modules that are incorporated directly into automobiles to improve the riding experience and safety performance as self-driving cars become more prevalent.

One thing that all our divisions share is our intent to provide

#### **Main Products**



a variety of products and refine our technology to meet the requirements demanded by the market.

### Reflecting on the 2022 Fiscal Year

In order to achieve our 2026 management targets, we will take measures such as strengthening our existing products and expanding new, next-generation products to achieve a higher growth rate than that of the automotive market, aiming for a revenue of ¥135 billion and an operating income of ¥8 billion. In 2022, during the first year of the plan to achieve the 2026 targets, we were able to exceed our initial plan with a revenue of ¥111.6 billion (a 29.3% increase year on year) due in part to the depreciation of the yen. However, semiconductor and other component shortages, regional lockdowns in China, and component procurement difficulties caused by the situation in Ukraine led to reduced automobile production, so if the exchange rate factor were removed, we would have fallen short of our plan. Furthermore, as the result of impairment losses totaling ¥13.6 billion that were recorded due to factors such as reduced automobile production and increased steel and energy prices, we ended up with an operating loss of ¥16.6 billion. In the belief that more extensive measures are needed to improve profitability as the environment surrounding the automotive industry evolves dramatically, we are restructuring our business. Specifically, we have maintained and bolstered the recovery plan (production and organizational restructuring) that we announced in 2020. As a result of adopting profit-focused management and not hesitating to reduce sales of less-profitable products, appropriating our fixed assets for the production of industrial machinery products, and strengthening other measures aimed at improving profitability, we were able to turn a profit in the fourth quarter of 2022 (when excluding impairments). In addition to stabilizing our profitability in 2023, we will grow our profits through initiatives such as expanding our new, next-generation products in 2024 and beyond.

# Future Initiatives: Working to Achieve a Sustainable Society

Cars are currently required to be safe and environmentally friendly modes of transport, and it is our role to propose and provide a stable supply of products that will achieve that aim. Looking first at the environmental aspect, the transition to CASE<sup>1</sup> is a pressing concern alongside environmental and fuel efficiency regulations. In particular, the lightweight advantage of our products will be used to improve mileage through electric-style vehicles. We have already released aluminum products that utilize new manufacturing methods, which have been adopted not only by local manufacturers in North America, but also by Japanese automakers who need to procure locally in that region. As for safety, we believe that greater safety can be ensured by providing electric actuators and other products with high added value that adopt THK's core technology. The new ball screws that we began developing, manufacturing, and selling for automotive applications have become essential products for CASE-related self-driving technology, where they have been adopted for use in automatic and integrated brakes. We have also now begun shipping these products for use in next-generation suspension mechanisms. Furthermore, we are promoting the development of new, next-generation products incorporating multiple technologies in development departments in Japan and overseas by pursuing a true market-in approach while also working to expand our product lineup to meet current customer needs.

We will look ahead five to ten years in the future and anticipate needs customers might not be aware of yet, utilize the expertise and technology THK has accumulated since its founding as a company focused on creation and development, and develop new products that meet future societal needs for self-driving technology and reducing automobile accidents involving aging drivers. In doing so, we aim to achieve the creation of a sustainable society.

#### **Progress of Automotive and Transportation Business Restructuring**



 $<sup>^{\</sup>mbox{\tiny 1}}$  CASE stands for Connected, Autonomous, Shared & Services, and Electric.

# **DX Promotion and Planning**

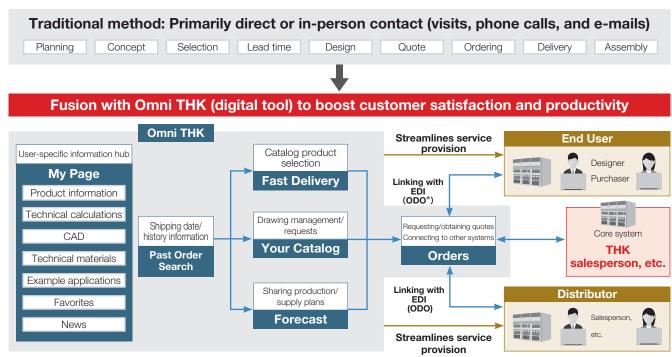
### Project Overview

DX (digital transformation) generally refers to using digital technology to revolutionize a business or service. In 2016, THK added a change in business style to its previous growth strategies of full-scale globalization and the development of new business areas. Based on this new strategy, each division began actively working to improve its processes through Al and robots in addition to developing new products and services that utilize new technology. In 2019, we launched the THK DX Project to unify the efforts of each department by switching to a cross-departmental framework. Furthermore, in 2020 and beyond, we have strengthened our framework for taking action by establishing the new IOT Innovation Division and Service Robot Division. Our aim is not merely to improve customer satisfaction and make our internal processes more efficient through the use of the latest technology. We will continue to put effort into DX activities in order to provide value through innovation as a way to solve future social challenges such as labor shortages and the need to become a recycling-oriented society. To that end, we also aim to achieve a corporate and social environment where each and every employee can fuse in-person and digital methods and continue to grow.

#### **Omni THK**

In our existing component business, we are promoting various initiatives to give all our employees more time to devote to work with high added value. We will accomplish this through a fusion of traditional in-person connections (sales activities) and new digital connections that will enable us to deepen our relationships with customers (restructure the user experience) and utilize automation technology to reduce routine work. Omni THK is being developed as the core tool that will enable us to achieve these objectives.

Instead of the traditional method of requesting prices, shipping dates, CAD data, and technical information from a THK sales representative, customers can now access this valuable information at any time through a secure online app, which has boosted productivity. We are working on efforts that even involve revamping our internal processes in order to achieve a seamless operation where human intervention is not necessary between the quote/order stage and the production/shipping stage. By reducing routine work in this way, we aim to boost our customer service by increasing the amount of time employees can devote to solving customer issues. We will continue to develop applications that improve customer convenience and help digitalize customer movement, promoting the fusion of in-person and digital methods.



<sup>\*</sup> ODO: Omni THK Direct Order System

### **OMNI** edge

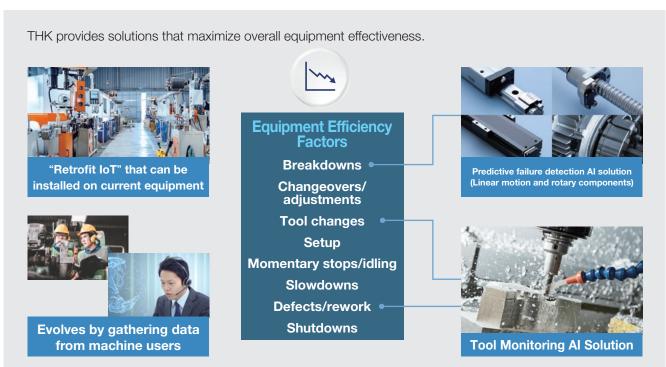
Realizing early on that the IoT was an effective technology for solving social challenges such as labor shortages and the need to boost productivity in the manufacturing industry, THK has been developing solutions to advance the adoption of the IoT worldwide. **OMNI edge** is an IoT service that can easily be retrofit onto equipment in use, is quick to set up, and is available for a reasonable price. Since its launch in 2020, we have developed three versions of this service.

In order to actively promote new business in concurrence with the first release phase, we established our new IOT Innovation Division to replace our previous framework of conducting interdepartmental projects on an individual basis.

We will continue to introduce solutions—not only for our own peripheral equipment, but for the greater market as well—that will reduce various types of efficiency loss on the production floor and improve overall equipment effectiveness (OEE\*).

### Developments in OMNI edge

Consider pages	
Service name Launch d	ate
Phase 1 Predictive failure detection Al solution for linear motion components January 29	020
Phase 2 Predictive failure detection Al solution for rotary components February 2	2022
Phase 3 Tool Monitoring Al Solution November	2022



#### **Talent Development: Data Utilization Training**

The greatest driving force behind DX activities is people, and THK is putting effort into developing digital talent.

In particular, we have been conducting data utilization training for all employees in Japan with the goal of having each location be able to utilize data in a unique and autonomous way. This training was established with a systematic, incremental curriculum, and participants are able to take courses appropriate to their skill level, position, and experience. In addition, we offer e-learning and online course environments to make the program available to all locations. The curriculum and materials were all created internally, so they



Data utilization training course

include analytical drills using actual internal data in addition to theoretical examples. Furthermore, access to internal data and an analytical environment are available so that the analytical case studies covered during training can immediately be applied in the workplace upon completion. We are working toward having every employee take the basic and beginner courses, and this goal is over 90% complete. The intermediate and advanced courses will be expanded throughout more of the company in 2023 and beyond in order to achieve more advanced data utilization (by using tools such as image recognition and demand forecasts based on machine learning).

 $<sup>^{\</sup>star}$  OEE: A metric used for increasing production equipment efficiency.

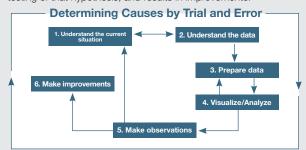
### **Developing Digital Talent**

### Further expediting DX activities with company-wide skill improvement



#### **Data Analysis Process**

Data analysis starts with clarifying the goal of the analysis, proceeds with drafting a hypothesis about the cause of a problem and the testing of that hypothesis, and results in improvements.



- 1. Understand the current situation Identify the problem and draft a
- 2. Understand the data
- Identify what kind of data is required
  (Investigate data points, volume, and quality)
- 3. Prepare data
- Pre-processing for visualization and analysis (Data scrubbing, handling missing data, and sampling)

#### 4. Visualize/Analyze

Data processing based on academic evidence

#### 5. Make observations

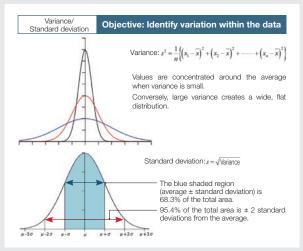
Test the hypothesis and determine the problem's causes

#### 6. Make improvements

Take action and move toward the next goal

### Variance and Standard Deviation to Examine Distribution of Data

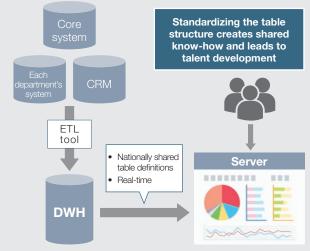
Variance and dispersion are metrics used to indicate how much deviation there is in a large set of data. These values become the basis for further testing.



Excel calculation method: VAR function for variance, STDEV function for standard deviation

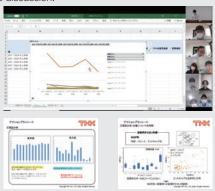
### Data Integration (Data Warehouse) and Standard Tables

Data is integrated using a data warehouse, and standard tables are created on the BI tool server.



### **Online Beginner Training Courses**

We hold online courses for employees in groups of ten. Each person presents on their work challenges and data, conducting an analysis and generating improvement actions alongside discussion.



These employees are stimulated through communication with others in their cohort and by seeing each other grow. This also has the effect of exposing them to the work of other departments.

#### **Production Automation**

The production division took its first steps toward promoting automation, robotization, and instrumentation in 2015, dubbing their effort the ARI¹ Project, using the initials of each word. Automation plans are drafted at every production facility at the beginning of each year, and monthly status reports are given as automation efforts move forward.

#### **Main Activities**

#### · Automation of Manual Processes

We are promoting a transition from manned operations to unmanned ones through the installation of robots, imaging inspection machines, and other equipment at traditionally manual processes such as assembly, measurement, and inspection. In doing so, we aim to further improve quality and stabilize our supply to customers.

#### Material Transfer Automation

We are promoting robots and perpendicular loaders for in-process automated transfers as well as AGVs² and AMRs³ for automated transfers between processes. Doing so allows us to improve the stability of our supply structure through labor savings and the extension of operating time.

#### Automated Data Collection

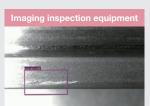
We created a cloud system for the purpose of obtaining quality and machine operation data. This data is now visualized on a daily basis, and its utilization allows us to expand to new improvement activities. We have also started to collect machine status information by utilizing various types of sensors, such as with IO-Link<sup>4</sup> and **OMNI edge**. Going forward, we will continue to work to maximize overall equipment effectiveness by pushing forward with automation and improvements to efficiency.

Automation of Manual Processes

Moving from manned to unmanned
operations







Material Transfer Automation
Using robots for material transfer





Automated Data Collection
Expediting information transfer
Utilizing data





Maximizing
Overall Equipment
Effectiveness (OEE)



No.	状態	点検項目	確認内容	09%	現在値	上限	下限	確認	L
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	EW	深度X/5的水量		18		10	-10		Γ
	正常	1010+7-10100 水亜		190		10	-10		ľ
4	正常	二流体的地名重		12	0	10	-10		Ì
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6	異常	投資507水量		18	69	10	-10		ı
	BE	1010+2-500x18		10	191	-10	-10		

- <sup>1</sup> ARI: An abbreviation of Automation, Robotization, and Instrumentation.
- <sup>2</sup> AGV: An abbreviation of Automated Guided Vehicle, a form of unmanned material transfer.
- <sup>3</sup> AMR:An abbreviation of Autonomous Mobile Robot. A robot that can detect irregularities and steps in its path while freely moving forward, backward, left, and right toward its destination.
- <sup>4</sup> IO-Link: Connection technology necessary for the transmission of signals to sensors and actuators.

# Outside Director Interview

THK has strengthened its governance structure by introducing an executive officer system, establishing an Audit and Supervisory Committee, and instituting a non-mandatory Nominee Advisory Committee and a Remuneration Advisory Committee, with half of the members of both committees being outside directors. In March 2022, we bolstered our governance structure further and expanded the outside director system to include five members by welcoming Junko Kai as our first female director.

We sat down with Masakatsu Hioki, the outside director who heads our Audit and Supervisory Committee, to discuss THK's governance structure and other topics.



Masakatsu Hioki Outside Director

From your position as an outside director, how do you rate THK's governance structure? How does the Audit and Supervisory Committee relate to management, and what do you think THK's future challenges will be?

To begin, my stance is that the role that is expected of an outside director is to look at things from a stakeholder perspective, not a management perspective. Rather than focusing on the short-term execution of duties, it is crucial to avoid harming shareholder interests over the medium to long term. In other words, it's about continuing to offer opinions to management from the perspective of shareholders and other stakeholders (such as customers, business partners, distributors, and employees) to strengthen the governance structure and contribute to sound corporate management. We expanded to a five-person structure in 2022 with the addition of Junko Kai as our first female outside director, and with the unique mixture of career histories everyone brings to the table, we have robust discussions regarding management proposals. Rather than monitoring and supervising from on high, it is important for us to take a level view to fully understand the business, so we strive to always look at THK from that perspective.

As for our relationship with management, the

Audit and Supervisory Committee conducts its activities with the following four basic principles in mind:

- Collaborate with management to contribute to the maximization of corporate value. (Create a good, strong company.)
- Coordinate with the internal control department and work on activities together.
- Achieve the optimal corporate governance through the committee's activities.
- The committee's activities are to be based on communication with directors and executive officers. In addition to sharing opinions through various meetings, promptly work together and respond to issues that occur.

If you synergize the corporate attributes of "good" and "strong" in that first principle, it will result in an "excellent" company. It is important to increase profits and be a strong company that can give returns to its stakeholders. I think this is also what it means to be a good company.

To further strengthen governance, it is important to have the mindset that "Bad news is good news," which takes advantage of THK's corporate culture that eliminates hidden risks and quickly responds to any risks that are identified. I believe that THK does have a structure

that enables bad news to quickly reach upper management, but the company also needs to strengthen its ability to share that information with the relevant departments and execute a response.

### What are the strengths and future challenges of THK?

THK's strength is that it has very solid management capabilities. President Teramachi's policies and directions are clear and properly conveyed to executives through the Board of Executive Officers and global meetings. Furthermore, the president conveys his message directly to staff during the general morning assembly at the headquarters and through visits to sales offices and production facilities both in and outside of Japan. In other words, eliminating the distance between organizations and making communication more open creates unity between executives and employees and ultimately fosters a corporate environment where information is readily shared.

As for the employees, my initial impression is that there are a lot of extremely honest and earnest staff members both in and outside of Japan. The executives and staff apply the President's Policy within their departments, and everyone conducts their work with a good understanding of its message. The system of issuing commands from the top down to every employee functions reliably and with astonishing speed. This perfectly coordinated structure where all employees strive toward goals with an understanding of corporate policies is precisely what I meant when describing a "strong" company earlier. Furthermore, every employee has pride in being an essential business, and whether you look at the Great East Japan Earthquake that happened a while back or the recent coronavirus pandemic, you see that THK has mobilized its crisis management structure ahead of other companies and taken appropriate action.

Now, as for THK's future challenges, the ideal situation for a company would be for employees



to be able to submit various proposals. More so than top-down or bottom-up, I think middle-up and middle-down are important. In my experience, the healthy companies are the ones with lively mid-level employees. In order for employees at that level to feel energized and revitalized, top management needs to have frank interactions with their subordinates. I think a structure needs to be created that will provide leadership training to activate people with manager potential and empower them to bring proposals and information to the attention of upper management without hesitation. There is the possibility that this will cause a temporary drop in work quality, but I think THK needs to intentionally develop the next generation by means such as actively and decisively promoting mid-level employees to higher levels of management. The THK philosophy is thoroughly instilled in members of management, so the company needs to work on quickly instilling it in younger employees and those in mid-level positions.

# What do you see as the respective challenges for the industrial machinery business and automotive and transportation business?

First, regarding the industrial machinery business, THK has accumulated technology based on the development of the LM Guide, which achieved a type of mechanical linear motion that was considered difficult, and the company develops products that meet the needs of the times and the market. THK products are essential components in machine tools, semiconductor manufacturing equipment, and other industrial machinery. In recent years, THK has successfully developed products and services that customers require, such as the Low-Torque Shaft Unit that moves in light breezes as a measure against global warming, the seismic isolation system that protects people's lives and property from major earthquakes, the **SEED-Solution/** service robots that provide contactless solutions for the coronavirus pandemic, and the **OMNI edge** IoT service that increases productivity. In essence, the provision of products like these is THK's response to the SDGs and ESG. I hope the company will continue to utilize its value chain to develop products that meet market needs. Despite the uncertain international climate exemplified by the recent situation in Ukraine and the resulting inflation that has persisted, THK's products remain essential to society. Above all, THK is a market leader, so I believe we can actively pass on price increases with confidence.

Next, with regard to the automotive and transportation business, I was in agreement



with the 2015 acquisition of the L&S business from TRW (now TRA) and believed in its potential synergy with the industrial machinery business and the necessity of turning it into a secondary pillar of profit for THK.

Although we are unfortunately not seeing steady profits now due to the external environment, I am not in favor of reacting to the circumstances by frivolously considering withdrawing from this business. With the industrial machinery business expected to expand over the medium to long term, THK has established production facilities around the world. There are efforts being made to improve profitability by effectively using THK's corporate resources, including having the automotive and transportation business' factories manufacture industrial machinery products instead of building more facilities. If this were another company, various obstacles would prevent the execution of this kind of initiative, but I see this as another example of THK's strength lying in its ability to take action and to do so quickly. While the industrial machinery business is currently providing support in certain areas, we believe that future profitability improvements will result in sustained profits. Responding to the drastic changes occurring in the automotive industry will bring about a significant opportunity for the automotive and transportation business. To prepare for that moment, I hope that THK will consider this major revolution in the automotive industry to be a golden opportunity and refine a strategy for how to make THK products useful.

Now, what I can say for both lines of business is that the keyword moving forward will be "DX" (digital transformation). THK needs to utilize DX to go about its three growth strategies in a smarter fashion and involve a variety of end users in order to expand its business domains. Regarding the 2026 management targets announced with the 2021 fiscal year results, I am impressed by the lively discussions that take place at the monthly Board of Executive Officers meetings concerning what actions need to be taken to achieve those targets.

### A Message to THK Employees

THK is vigorously pressing forward with strengthening the skills of individuals, and I agree with this philosophy. Unfortunately, when it comes to education in Japan, even college degrees do not give people enough training for the real world, and it takes time to master a real job. There's the old saying of "three years for peach chestnut seeds to bear fruit, eight for persimmons," and when it comes to new hires, they need to fully learn how things work at the company within the first three years. After that, the company needs to provide individuals with growth opportunities and create systems where, depending on the circumstances, they can simulate things they don't normally experience. At least until a person becomes 80% independent, the company will need to provide thorough support by creating an environment where people can grow, which might involve support from a cross-departmental project team, for example.

For mid-level employees who are the backbone of the company, learn on your own initiative and actively seek out help from more experienced colleagues when you are struggling. Knowledgeable people tend to gain knowledge and share it with other people. A workplace is, in a sense, a treasure trove of knowledge. Capitalize on that resource and use it to refine yourself. Your thirties are when the fruit will ripen. It's an unfortunate situation when people have arrived at the point of having knowledge, but they have no opportunity to use it. So for those in management, I want you to look at things from an employee's perspective and think about what you needs to do for everyone to be excited about their work. It's important



to create a company environment where people really want to work and turn employees into fans of the company.

In order to become a strong company, it's also necessary to strengthen relationships with stakeholders. Therefore, you should actively seek out interactions with customers, business partners, distributors, and the local communities around your sales and production bases.

Finally, "talent" is a good word for employees that conveys the idea that the company values people, but it sounds hollow if the reality does not support it. I want employees to think about if the company is valuing them as an asset, and if they have become indispensable to the organization in turn. In order to improve individual skills, you have to have both the self-improvement efforts of the individual and support from the company.

# Principal Risks and THK's Response

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### **Risk Management**

Based on our customer-focused approach where we think, act, and verify results from the customer's perspective, THK has established an integrated production and sales structure with facilities and operations close to centers of demand. As of December 31, 2022, our business has expanded to include 121 sales offices (47 in Japan, 74 outside of Japan) and 37 production facilities (12 in Japan, 25 outside of Japan).

In order to fulfill our mission and responsibility to supply products as an essential business no matter the situation, we have established a risk management structure that controls all kinds of business risks, from natural disasters to terrorism, for each domestic and international entity within the Group in accordance with our risk management regulations.

### **Risk Management System**

In order to gain an accurate understanding of every kind of risk related to the business activities of the THK Group and to facilitate more appropriate risk-taking by executive staff, THK established a Risk Management Committee headed by the CEO and created a Group-wide risk management structure based on rules related to risk management. The committee establishes and formulates countermeasures to selected risks related to the THK Group's business activities and verifies whether the risk management structure is functioning in an effective manner. Furthermore, we consider risk to be an uncertainty that affects the revenue of the organization, which may be negative or positive in nature. We believe that hedging risks as appropriate to deal with the negative while actively taking positive risks will lead to sustained future growth.

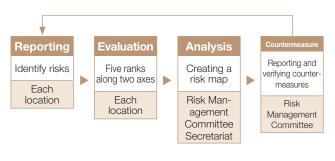
### **Defining and Responding to Risks**

- 1. Each domestic and international Group company and department identifies the risks they are aware of.
- Each company and department ranks the identified risks into five levels along the two axes of likelihood and impact.
- 3. The results of these assessments are reported to the Risk Management Committee Secretariat.
- 4. Based on the results from each company and department's evaluation, the averages of the likelihood and impact are calculated and plotted on a risk map.
- Based on the results from each company and department's evaluation, the risk score is calculated and represented through the size of the circle on the map.
- In consultation with the Risk Management Committee, we develop countermeasures and verify the effectiveness of our management structure.

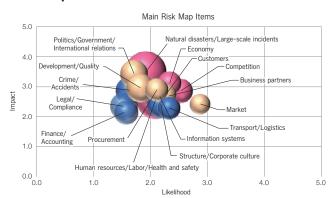
By taking the steps outlined above, we work to prevent risks before they occur. Furthermore, in the event that a risk becomes a reality, we are strengthening our framework that enables us to quickly launch a task force in response and promptly determine countermeasures in order to minimize the impact to our business.

Through the above process, we evaluated numerous possible risks to our business continuity and identified 11 items with high severity. For these potential risks, we are constructing internal frameworks to strengthen the positive impact and expand our business (opportunities) in addition to minimizing the negative impact and taking mitigating measures (countermeasures).

#### **Risk Assessment Process**



#### Risk Map



	Item	Risk	THK's Response
	Compliance	Application of laws and regulations in each country where THK is active     Loss of trust in THK due to a legal violation	Established the Compliance Committee     Prepared the THK Group Action Charter in 12 languages and distributed to all employees     Established the THK Group Helpline with three internal and externa reporting lines (Risk Management Department, Audit and Supervisory Committee, and legal counsel)     Established system for locations in each region to share information about legal and regulatory trends
Governance	Information security	Skilled, sophisticated cyberattack     Destruction or modification of data due to illegal access     Information leak due to system malfunction	Established Information Security Committee     Responded to domestic and international regulations regarding the protection of personal information     Performed targeted e-mail attack drills
	Major disasters (including infectious diseases)	Negative impact on sales due to production stoppages     Disruption in component provision due to suppliers or distribution networks suffering from a disaster	Implemented a crisis management service to understand the scope of the impact from a disaster     Established an alternate production structure that includes global production facilities     Transferred headquarters functions when affected by a disaster     Developed robots that can enter collapsed buildings and those that provide contactless service to prevent the spread of disease
	Competitors	Price competition with similar products Recruitment of THK employees by other companies	Proposing electric and labor-saving products Using Omni THK to understand market needs Developing products and services such as OMNI edge that meet market requirements Developing new products and cultivating new markets Strengthening global collaboration
	Global business development	Current events in locations where THK or its suppliers do business, in- cluding political and economic trends, terrorism, and international conflicts	Established BCP measures to minimize harm     Using a risk management service to quickly obtain local information
Society	Raw material and component procurement	<ul> <li>Insufficient production capabilities, quality defects, or compliance violations on the part of suppliers</li> <li>Lockdowns in the countries where THK does business</li> <li>Supply chain disruptions due to a major disaster</li> <li>Sharp hikes in the prices of raw materials</li> </ul>	Distributed the THK Green Procurement Guidelines Supplier audits Developing new technology through quarterly THK Association idea exchanges and VA proposals Expanding our global procurement network Promoting recycling and reusing
	Currency exchanges	Drastic fluctuations in exchange rates     Estimated value of financial statements from subsidiaries outside of Japan	Foreign exchange contracts     Expanding local procurement
	Interest rates	<ul><li>Increased interest rates</li><li>Estimated value of assets</li></ul>	Derivative transactions such as interest rate swaps
	Talent	Intense competition to secure excellent talent     Worsened labor/management relations	<ul> <li>Creating a work environment that welcomes diverse talent</li> <li>Training program that utilizes e-learning</li> <li>Creating an environment where women can thrive</li> <li>Talent development program</li> <li>Various benefit programs</li> </ul>
	Quality	Major quality incidents     Worsened supplier quality	<ul> <li>Conducting supplier quality audits</li> <li>Obtained ISO 9001, JIS Q 9100, and IATF 16949 certification</li> </ul>
Environ- ment	Environment	Stricter environmental regulations     Major environmental incidents	<ul> <li>Obtained ISO 9001, JIS Q 9100, and IATE 16949 certification</li> <li>Distributed the THK Green Procurement Guidelines</li> <li>Obtained ISO 14001 certification</li> <li>Complying with RoHS Directive, REACH Regulation, and PRTR Law</li> <li>Developing products related to renewable energy</li> <li>Developing products to achieve carbon neutrality</li> </ul>

### Governance

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#### **Basic Stance**

Intending to maximize our corporate value, we strive to maintain solid corporate governance in order to make medium to long-term improvements to our corporate value by sustaining

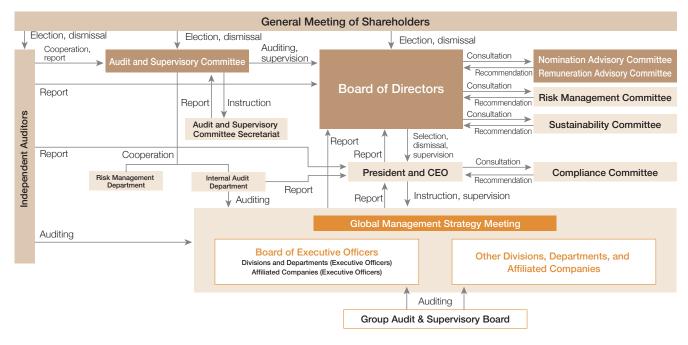
growth through appropriate cooperation with all our shareholders and other stakeholders.

#### **Governance Structure**

For our institutional design, in conjunction with our establishment of an Audit and Supervisory Committee, we also instituted a non-mandatory Nominee Advisory Committee and a Remuneration Advisory Committee, with half of the members of both committees being outside directors to ensure further transparency and fairness in management personnel and remuneration.

We have also introduced an executive officer system. In doing so, we have strengthened the auditing functions of the Board of Directors in addition to bringing greater speed and efficiency to management-related decision-making and the management of corporate affairs.

#### **Governance Structure**



#### **Board of Directors**

THK's Board of Directors comprises a total of nine directors—including two outside directors—who are not members of the Audit and Supervisory Committee, in addition to three outside directors who are Audit and Supervisory Committee members. The Board of Directors makes decisions on important matters of general management and carries out the oversight of directors and executive officers in the execution of their duties. There are also five outside directors whose independence meets the evaluation criteria stipulated by the Tokyo Stock Exchange and THK. With over a third of the directors

being outside directors who possess specialized professional knowledge and qualifications related to corporate accounting or general management, this structure has further enhanced management neutrality, legality, and validity while improving the board's management oversight function.

#### **Audit and Supervisory Committee**

Comprising three outside directors who are Audit and Supervisory Committee members, the Audit and Supervisory Committee utilizes the internal control system to audit and supervise

directors and executive officers with regard to the current status of the execution of their duties. The effectiveness of the audits is also enhanced by collaboration between the Audit and Supervisory Committee and independent auditors. In addition, the Audit and Supervisory Committee Secretariat has been established to support the Audit and Supervisory Committee and its members. The Audit and Supervisory Committee Secretariat follows the instructions of the Audit and Supervisory Committee, coordinates with each department, and conveys instructions to the Internal Audit Department and the Risk Management Department, which is responsible for the maintenance and operation of internal controls.

#### **Nomination Advisory Committee and Remuneration Advisory Committee**

The non-mandatory Nomination Advisory Committee and Remuneration Advisory Committee are each composed of four directors, two of which are outside directors. This composition is in accordance with the rules for both committees, which stipulate that outside directors must make up half or more of the members. As advisory bodies to the Board of Directors, both committees review and deliberate on director candidates and remuneration proposals, and they propose the content and outcomes of those deliberations to the Board of Directors. The Board of Directors conducts its own deliberations on the subject matter before deciding on a resolution.

#### **Executive Officer System**

By introducing the executive officer system, we have endeavored to accelerate decision-making and operational execution, in addition to improving the management oversight function of the Board of Directors and clarifying roles and responsibilities relating to the management of corporate affairs. As a means to share information throughout the Group and improve corporate governance through collaboration among the directors, executive officers, and other members of the management team, we have implemented our Board of Executive Officers, which is attended by directors and executive officers, and established the Global Management Strategy Meeting, which is attended by members of the Board of Executive Officers in addition to those in charge of each division, department, and affiliate company. To clarify the roles and responsibilities of executive officers relating to the management of corporate affairs, an executive officer's term in office is deemed to be one year.

#### **Evaluating the Effectiveness of the Board** of Directors

We conduct an annual survey on the capabilities of the Board of Directors in order to ensure its effectiveness and improve its performance. An external lawyer and the Secretariat of the Board of Directors collect and analyze the results of the survey, and the five outside directors discuss the analysis from an objective perspective and clarify the main points. After further deliberations on these results by the Board of Directors, the effectiveness of the Board of Directors is then evaluated.

The 2022 survey concluded that the Board of Directors demonstrates overall effectiveness. Comments praised the increased diversity of the Board of Directors through the 2022 hiring of a female outside director in addition to the successful gathering of information through separate preparatory gatherings and attending the Board of Executive Officers meetings in addition to Board of Directors meetings.

Areas for improvement included the need for more opportunities to discuss and exchange opinions about new and specific topics such as sustainability and human resources

We will continue to pursue further improvements to secure the effectiveness and bolster the performance of the Board of Directors.

#### **Governance Structure Timeline**

	Up to 2015	2016 to 2021	2022 onward
Background context		Strengthening the management oversight function	Improving the diversity of the Board of Directors
Accomplishments	One outside director     Introduced executive officer system	Established Audit and Supervisory Committee     Established non-mandatory Nomination Advisory Committee and Remuneration Advisory Committee     Four outside directors	Five outside directors, including selection of female director
Events	Established independence evaluation criteria for outside directors	Began evaluating effectiveness of Board of Directors	Introduced restricted stock compensation system for directors (excluding outside directors) and executive officers     Published Board of Directors skill matrix

#### **Executive Compensation**

#### **Basic Policy**

It is our basic policy that the remuneration structure for directors (excluding directors who are Audit and Supervisory Committee members and outside directors) will be tied to shareholder interests in order to ensure that such compensation functions effectively as a continued incentive to improve corporate value, and decisions on remuneration for individual directors are based on an appropriate standard in consideration of their duties.

#### **Base Salaries**

Base salaries are determined based on the results of the previous fiscal year, with the combined sum of director salaries not to exceed ¥1.2 billion. Directors are evaluated based on their individual duties and both their current and expected contributions, and their base salaries are accordingly determined and allotted from the aforementioned collective sum. The annual base salaries of outside directors must remain under ¥120 million, and the amount is determined based on compensation standards for companies of a similar size, industry, and type of business.

#### **Performance-Based Incentives**

The upper limit for performance-based incentives is the sum of 3% of the profit for the year attributable to owners of the parent for that period plus 3% of the average value of the profit for the year attributable to owners of the parent for the past four years, including the current fiscal year, which is factored in to level out the variances in the demand trends for our business

when determining the total amount of compensation for each fiscal year. Each director is evaluated, and their compensation is determined within that limit in consideration of their duties and degree of contribution. Performance-based incentives are not provided to outside directors.

#### **Restricted Stocks**

As an incentive to continuously improve THK's corporate value, restricted stocks are provided to directors (excluding directors who are Audit and Supervisory Committee members and outside directors). In order to align the interests of directors with those of shareholders, these stocks may not be transferred except under specific circumstances, and when such conditions are met, they will be allocated as common stock, which are subject to restrictions such as being alloted without contribution. Furthermore, based on a resolution by THK's Board of Directors, the annual sum when combined with the base salary shall not exceed ¥1.2 billion (no more than ¥120 million of which may go to outside directors), and no more than 270,000 common shares may be allocated to directors (excluding directors who are Audit and Supervisory Committee members and outside directors).

#### **Compensation Structure Policy**

Based on a clear outline of business results and role-specific performance and responsibilities, base salaries are reevaluated on an annual basis and factor in company performance. Taking this amount into consideration, the ratio between base salary and performance-based incentives is then determined based on the performance during the current fiscal year, per-

#### Structure of the Board of Directors (Skill Matrix)

	Corporate management	Finance and accounting	Governance and risk management	Global business	Sales and marketing	DX and IT	Development, engineering, and manufacturing
Akihiro Teramachi	•		•	•	•	•	•
Toshihiro Teramachi	•			•	•	•	
Hiroshi Imano	•	•	•	•			•
Takashi Teramachi	•				•	•	•
Nobuyuki Maki	•			•	•		•
Junji Shimomaki				•	•		
Kenji Nakane		•				•	
Masaaki Kainosho	•		•		•	•	
Junko Kai			•				
Masakatsu Hioki			•	•			
Tomitoshi Omura		•	•				
Yoshiki Ueda	•		•	•	•		

**Data Section** 

formance during the past four years, and contributions to overall management. This compensation structure is decided by discussing the draft proposal with the Remuneration Advisory Committee and considering their recommendations.

The number of restricted stocks is calculated at around 5% of the sum of the applicable directors' base salaries at the beginning. As time goes on, this ratio is adjusted from the initial

level to an appropriate amount based on changes in the management environment as an incentive for directors to contribute to the continued improvement of THK's corporate value, share the risks and rewards of stock price fluctuations with shareholders, and possess a greater desire to help raise the stock price and improve corporate value.

### **Internal Audits**

As a matter of basic policy, the Internal Audit Department conducts internal audits that contribute to management and the departments being audited. Internal auditors monitor the business activities of each department as a group directly reporting to the CEO that is independent from any other department.

The Internal Audit Department carries the dual responsibilities of conducting internal audits and evaluating internal controls

During internal audits, the business activities of each department and Group company are audited. These audits are generally performed on-site every year, and the results are summarized in an internal audit report and distributed to both management and the departments under audit. In 2022, as the coronavirus pandemic continued, these audits were instead conducted virtually at 71 offices and departments.

During evaluations of internal controls, internal controls related to financial reporting are evaluated based on the Financial Instruments and Exchange Act. With the release of internal control reports, management evaluates the effectiveness of internal controls and undergoes an audit by accounting auditors on an annual basis. In 2022, the overall internal controls were evaluated at 21 locations, and the internal controls related to business processes were evaluated at 12 locations.

#### **Internal Controls**

In accordance with the Companies Act and the Ordinance for Enforcement of the Companies Act, we stipulate the following in our Basic Policy for Internal Controls and maintain and operate an internal control system.

- Controls to ensure that the execution of duties among THK Group directors and employees conform to laws and the articles of incorporation
- 2. Matters concerning the storage and management of information related to the execution of director duties
- 3. Regulations and other controls concerning the risk of loss for the THK Group
- 4. Controls to ensure the efficient execution of duties among THK Group directors
- 5. Controls to ensure the appropriateness of THK Group operations
- 6. Matters related to ensuring the effectiveness of structures relating to employees whose appointment was requested to assist the Audit and Supervisory Committee, the independence of those individuals from directors (excluding directors who are Audit and Supervisory Committee members), and directions issued to those individuals

- 7. Structure for directors, employees, or individuals receiving a notification from such persons to report to the Audit and Supervisory Committee
- Controls for ensuring that no one receives unfavorable treatment on the basis of their having made a report to the Audit and Supervisory Committee
- 9. Matters relating to the policy for advance payment or reimbursement of expenses arising from the execution of duties among directors who are Audit and Supervisory Committee members and the processing of expenses or debts arising from the execution of other such duties
- 10. Other controls for ensuring effective auditing by the Audit and Supervisory Committee

Furthermore, the operational status of the internal control system is reported to the Board of Directors annually, and that information is included in business and financial reports. The current version of the Basic Policy for Internal Controls can be viewed on the THK website.

# Compliance



# Thoroughly instill compliance awareness and create a work environment that does not allow wrongful acts.

To thoroughly instill compliance awareness, we maintain structures and conduct various programs with the aim of complying with laws, internal standards, and ethical norms.

### 2022 Activities

#### **Compliance Structure**



### **Compliance Committee**

The Compliance Committee is headed by our CEO and convenes four times a year. This committee, which is composed of outside directors and a legal advisor, approves the annual activity plan and reports on the execution of those activities, as well as on the handling of compliance violations by employees and other matters reported internally.

# THK Group Helpline (Internal Reporting System)

The THK Group Helpline was established to prevent compliance violations and to enable quick and appropriate action in the event of an employee committing a violation. There are two internal contacts (the Risk Management Department and the Audit and Supervisory Committee) and one external contact (our legal advisor) for reporting, and reports can be made anonymously. We faithfully enforce our rules ensuring confidentiality regarding the contents of reports and prohibiting unfavorable treatment on the basis of having made a report. There were eight cases reported in 2022, and we worked with the necessary divisions to handle each case appropriately.

# **Spreading THK Group Helpline Awareness**

THK provided information about the THK Group Helpline

via internal newsletter four times during the year.

#### **Training**

In the aim to prevent illegal and wrongful acts that would significantly impact operations, THK has conducted the following:

- New-hire training for 160 employees in April
- Compliance seminar for one international, mid-career hire in April
- Compliance subcommittee member seminar for 44 participants on effective internal communication practices es for preventing and correcting compliance violations in December

#### **Self-Audits**

In order to identify and improve compliance readiness issues, a 32-question compliance survey was conducted among all employees in December.

# Distribution of the "Fundamentals for the THK Group Employees" Booklet

"Fundamentals for the THK Group Employees" contains our Corporate Philosophy, Corporate Basic Policies (creating value and contributing to society, being customer-oriented, and compliance with laws and regulations), and The THK Group Action Charter. This booklet is distributed to all employees in an effort to ensure they always perform

their work appropriately without losing sight of their mission, and it is available in a total of 12 languages (Japanese, English, Traditional and Simplified Chinese, German, French, Czech, Portuguese, Spanish, Thai, Malay, and Vietnamese).



# **Intellectual Property**



THK values and promotes the creation and full utilization of its intellectual property to continue contributing to the creation of an affluent society through the development of innovative products.



#### 2022 Activities

THK is promoting its growth strategies and implementing activities conducive to the expansion of its business areas.

Our main activities involve adapting to an expanded sales framework and enhanced productivity, as well as securing a business advantage in overseas markets through an increase in overseas patent applications and early acquisition of patent rights. As we expand into new business fields, we are also reviewing the areas in which we have trademark rights and strengthening those areas with new patent applications.

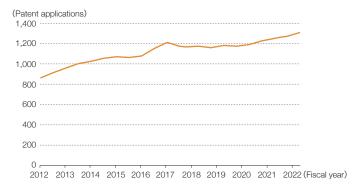
As part of strengthening our brand, we are also asserting more control over imitation products and striving to mitigate the negative effects if customers purchase counterfeit products by mistake. With the ultimate aim of generating intellectual property rights connected to business continuity, we are working toward increasing the implementation rate of our intellectual property rights by determining evaluation criteria for when we apply for patents in Japan and abroad, and by continuing projects meant to promote the utilization of our currently unimplemented patents.

### **Responding to Counterfeit Products**

To increase the brand strength of THK's products, with the aim of eliminating malicious manufacturers and sellers, we are

performing a test installation of software for extracting and removing imitation and inauthentic products (counterfeit products) and testing its effectiveness at ascertaining how and in what quantities counterfeit products are distributed. Currently, we are using this software to identify companies putting THK's brand name on products that are not ours, sales of products that we cannot guarantee as our own, and manufacturers and sellers thought to be applying THK's brand to counterfeit products. We are gradually executing such countermeasures where possible.

#### Registered Patent Applications outside Japan



#### **Structure Improvement Timeline**

	Up to 1995	1996 to 2000	2001 to 2005	2006 to 2010	2011 to 2015	2016 onward
Background context	Strengthening THK's foundation as pioneer of the LM Guide	Globalization of production and sales	Securing and expanding sales share	Market competition with competitors     Expansion of new business	Market competition with competitors     Expansion of new business     Increase in counterfeit and inauthentic products	Market competition with competitors     Expansion of new business     Increase in counterfeit and inauthentic products
Accomplish- ments	Proactively applied for trademark rights in response to similar products	Strengthened patent applications outside Japan	Restricted market access for competitors outside Japan     Strengthened invention extraction and generation activities     Adopted key person system	Rigor added to investigations for preventing infringement     Intellectual property preservation structure coinciding with new business expansion     Strengthened technological contract support	Adopted a global intellectual property management system     Promoted brand protection activities (such as strengthened border control measures)	Made paid patent licenses available
Events		1996: Established Patent and Intellectual Property Unit     1999: Established patent invention regulations			2011: Established Patent and Intellec- tual Property Unit at the China R&D Center	

# Risk Management Structure



### We facilitate assertive governance with elements of bold risk-taking.

We maintain a forward-looking risk management structure that actively involves management in order to support risk-taking by executive staff. The Risk Management Department was established directly beneath the CEO as a means to control and respond to risk throughout the company. This department is split into legal, internal control, security export control, compliance, and environmental management sections, which establish guidelines for every foreseeable risk in their respective areas and provide training and develop countermeasures based on those principles.

Committees on compliance, information security, and the environment convene quarterly and report to the CEO on their activities. The Risk Management Committee, which is headed by the CEO and composed of outside directors and legal counsel, convenes annually. They approve the annual activity plan and work to establish, promote, and maintain the risk management structure by controlling risks throughout the entire Group.

### 2022 Activities

#### **Risk Management Structure**



#### **Risk Assessment Review**

- A review of THK and its domestic and international Group companies was conducted to uncover, identify, categorize, analyze, and evaluate the risks of which each company and department is aware, and the results were reported to the Board of Directors.
- In consideration of the global spread of the coronavirus (COVID-19), we reevaluated risks arising from infectious diseases.

#### Other

• The medium- to long-term financial sense and future outlook of primary cross-held stocks were verified.

#### **Structure Improvement Timeline**

	Up to 2000	2001 to 2005	2006 to 2010	2011 to 2015	2016 onward
Background context	UN Global Compact established     Foreign Corrupt Practices Act of Japan revised     Began applying to foreign companies     Unfair Competition Prevention Act of Japan revised     Anti-bribery regulations	Ten Principles of UN Global Compact adopted  Companies Act of Japan revised  Stipulated obligation to establish internal controls  Guidelines for the Prevention of Bribery of Foreign Public Officials announced  Act on the Protection of Personal Information went into force in Japan	Financial Instruments and Exchange Act of Japan revised     Established obligation to enact relevant internal controls     Internal control and reporting system established	UN Guiding Principles on Business and Human Rights approved     Modern Slavery Act enacted in UK     Corporate Governance Code of Japan enacted     SDGs adopted     My Number Act went into force in Japan	General Data Protection Regulation (GDPR) went into force in the EU     Corporate Governance Code of Japan revised
Accomplish- ments	Enacted internal information control regulations	Established emergency response manual     Enacted security control regulations     Enacted regulations for protecting personal information	Established Compliance     Committee     Established THK Helpline     Enacted THK Group Action     Charter     Enacted regulations prohibiting insider trading     Established Information Security     Committee	Enacted regulations for protecting specific personal information	Established Risk Management Committee     Established THK Group Human Rights Policy     Established THK Group Anti-Bribery Policy
Events		Began compliance training for locations in Japan	Began compliance training for locations outside of Japan		

# **Information Security**



Establish, instill, and maintain the THK Group information security structure.

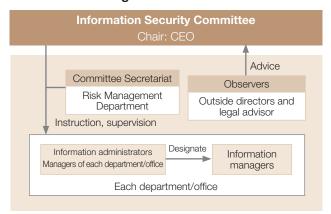


### 2022 Activities

#### **Information Security Committee**

The Information Security Committee, chaired by the CEO, convened four times this year. This committee, which is attended by outside directors and legal counsel, made decisions concerning policies related to the establishment of an information security structure and discussed responses to information security concerns.

#### **Information Management Structure**



#### **Performing Targeted E-mail Attack Drills**

In recent years, e-mail attacks targeting specific members of companies and organizations have become particularly devious, such as e-mails claiming to be from business contacts. A variety of countermeasures are required beyond installing security software and monitoring internal and external transmissions to counteract these targeted e-mail attacks on the system side, such as training, drills, and internal rules for the employee side. Alongside things like reminder alerts on the company intranet, we also performed e-mail drills with employees to strengthen the aspects of security that they are involved in. We sent out dummy e-mails made for the drill to the participants, collected information about how they acted when they received the e-mails, and evaluated the results to use them as a metric by which to create future countermeasures.

#### **Self-Survey on Information Security**

While information utilization is indispensable for corporate growth in modern society, security risks associated with that same information are also considerable. Companies

can lose trust and experience extensive losses from a single information leak. For that reason, we had employees take a self-survey on information security to ascertain the level of awareness about information security throughout the company and to develop improvements. We have conducted this survey every year since 2008.

#### **Information Security Audit**

We perform regular information security inspections at selected facilities for the sake of voluntary reviewing the construction of our information security structure, checking for compliance with information security rules pertaining to our business, and improving problem areas. The Chubu OFC and Marketing & Public Relations Unit were audited in 2022, and it was confirmed that no issues were occurring on the operations side at the facility level.

### Strengthening External Public Server **Security Measures**

We have implemented tools to check for vulnerabilities in the THK Group's external public servers, and we are increasing the visibility of risks to our servers in order to respond to them.

### Strengthening THK's Personal Information Management Structure

Protecting personal information is becoming more important as a result of the development of global business activities that have accompanied the rapid advancement in information technology and the utilization of personal data. When the GDPR\* entered into force in May 2018, we set up a fixed structure that included the establishment of a privacy policy and internal regulations. As similar legislation is drafted or revised to protect personal information in countries and regions outside of Europe, we investigate its impact on the THK Group, revise our privacy policy as necessary, and review our structure and rules for properly managing personal information.

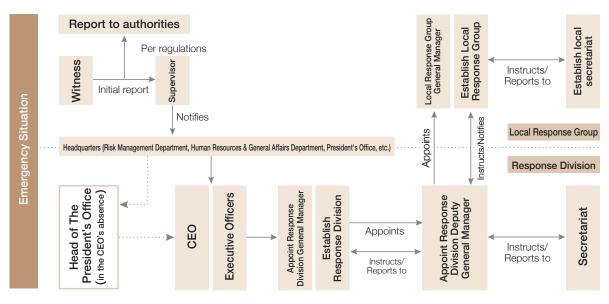
\* GDPR stands for General Data Protection Regulation. The GDPR is a law adopted by each country within the EU that outlines the specifics of the protection and handling of personal data.

# BCP (Business Continuity Plan)



As a company that supports industry around the world, it is our essential social responsibility to minimize any negative impact on society by fulfilling our responsibility to supply parts even in the event of unforeseen disasters.

#### **Process Flow for Emergency Situations**



<sup>\*</sup> When the CEO is unavailable, the Deputy General Manager will be determined by executives.

### **Structure Improvement Timeline**

	Up to 2010	2011 to 2017	2018
Background	Introduced a BCP system based on customer requirements	Increased BCP surveys, including among Group companies     Identified and took care of critical items stemming from increased market requirements for supplying essential parts	Trained Group companies Greater requirements for establishing a BCP structure  Established a systematized BCP structure that includes management
Accomplish- ments	Formulated policy Established BCP model at Kofu plant Expanded to four THK manufacturing plants (Yamagata, Gifu, Mie, and Yamaguchi) Formulated BCP for the headquarters	Formulated BCP for sales branches     Revised BCP for production facilities     Identified items with a major business impact     Identified alternate production sites     Secured communication methods during a disaster	Convened 1st BCP Promotion     Council     -Established the BCP Promotion     Council     -Selected people in charge of BCP     Held seminar conducted by external instructor
Events		2011: Great East Japan Earthquake (partial transfer of headquarters functions)     2016: Kumamoto Earthquakes	

The theme of 2022 was to strengthen the effectiveness of the BCP. Learning from real examples of other companies' BCP measures not functioning during an emergency, we have conducted training in order to improve on-site response capabilities and strengthen the effectiveness of our BCP. Specific examples of such activities include:

- 1. Performing drills for potential disaster scenarios in order to improve understanding and awareness among BCP promoters and other responsible parties of their current ability to make judgments and take action
- 2. Investigating and verifying tools and services that enable an effective response to an emergency

## 2023 Activity Plan

The theme of 2023 is to establish a smart BCP. Specific activities include:

- 1. Gradually expanding activities for improving the ability to make judgments and take action during an emergency down to an individual level
- 2. Investigating and introducing a smart BCP that will strengthen local resilience
- 3. Investigating a BCP that also considers collaborating with (supporting) the surrounding community as a way to contribute to the local region

2019	2020	2021 onward
<ul> <li>Strengthened BCP promoters' awareness of potential harm</li> <li>Heightened threat of natural disasters</li> <li>Achieved understanding of supply chain situation</li> </ul>	<ul> <li>Strengthened natural disaster risk and supply chain management</li> <li>Early confirmation of damage to supply chain in the event of a natural disaster</li> </ul>	Established solid corporate structure and strengthened the ability of individuals on-site to make judgments and take action     Steady functioning of BCP in an emergency
Convened 2 <sup>nd</sup> BCP Promotion Council     Improved awareness among BCP promoters by having people from companies that experienced the Kumamoto Earthquakes talk about their experiences	Surveyed production facilities of component suppliers and process contractors, including secondary and tertiary suppliers, and added records to management system	Convened 3 <sup>rd</sup> BCP Promotion Council     Shared with BCP promoters what happened during the Great East Japan Earthquake and trained on individual responses
	Coronavirus pandemic	

## **Directors and Executive Officers**

#### Board of Directors and Executive Officers (As of March 18, 2023)

#### **Board of Directors** -



Akihiro Teramachi



Toshihiro Teramachi



Hiroshi Imano

# **Managing Executive Officers**

Takashi Okubo

Appointive Officer to President in Charge of China

Executive Officers —

Masaki Sugita General Manager of Service Robot Division, Industrial Machinery Headquarters

Tetsuya Hayashida

Naoki Kinoshita Executive Vice Chairman of THK (CHINA) CO., LTD. President of THK (CHINA) CO., LTD.

Takanobu Hoshino General Manager of IMT Division, Industrial Machinery Headquarters Director and Executive Vice Chairman of THK INTECHS CO., LTD.

Akihiko Kambe Senior General Manager of Production Division, Industrial Machinery Headquarters

Kaoru Hoshide

Senior General Manager of Engineering Division, Industrial Machinery Headquarters

Masato Sawada General Manager of Automotive & Transportation Headquarters Director and Executive Vice Chairman of THK RHYTHM CO., LTD.

Toshiki Matsuda Representative Director and President of THK Europe B.V. Representative Director and President of THK GmbH Representative Director and President of THK GMDH
Representative Director and President of THK France S.A.S.
Representative Director and President of THK Manufacturing of Europe S.A.S.

Nobufumi Sato

President of THK Holdings of America, L.L.C. President of THK America, Inc.



Takashi Teramachi Director and Senior Managing Executive Officer Senior General Manager of Industrial Machinery Headquarters



Nobuyuki Maki Director and Senior Managing Executive Officer Senior General Manager of Automotive & Transportation Headquarters



Junji Shimomaki

Junko Kai

#### **Executive Officers**

Yukio Yamada

General Manager of Sales Division, Industrial Machinery Headquarters General Manager of International Sales Division, Sales Division, Industrial Machinery Headquarters

#### Takehiro Nakanishi

Deputy Senior General Manager of Production Division, Industrial Machinery Headquarters General Manager of Production Engineering Department, Production Division, Industrial Machinery Headquarters General Manager of Global Productment Department, Production Division, Industrial Machinery Headquarters

#### Masaki Kimura

Head of The President's Office Head of Corporate Planning Department, Corporate Strategy Headquarters

### Takuya Sakamoto

#### Katsuya lida

Head of Product Planning Department, Industrial Machinery Headquarters Head of Engineering and Development Department, Engineering Division, Industrial Machinery Headquarters Head of Engineering Division, THK (CHINA) CO., LTD.

#### Toshihiro Takahashi sident of THK NIIGATA CO., LTD

Akira Furihata

Representative Director and President of THK RHYTHM CO., LTD.

#### Katsumi Fujita

General Manager of Human Resources & General Affairs Department, Corporate Strategy Headquarters



Kenji Nakane Director, CFO, and Executive Officer General Manager of Finance & Accounting Department, Corporate Strategy Headquarters General Manager of Indirect Material Procurement Department, Corporate Strategy Headquarters



Masaaki Kainosho

Masakatsu Hioki Tomitoshi Omura Outside Director (Audit and Supervisory Committee Member) Outside Director (Audit and Supervisory Committee Member)



Yoshiki Ueda Outside Director (Audit and Supervisory Committee Member)

Masaaki Kainosho June 2012 Became Outside Director of THK	Reason for selection  Independent status	Masaaki Kainosho has a wealth of experience, a history of success, and sound judgment as a manager of an executive consulting company and a university professor deeply versed in business administration.  Masaaki Kainosho was employed at THK's current lender, Sumitomo Mitsui Banking
Significant concurrent positions: Representative Director of KAINOSHO CO., LTD.		Corporation (previously Mitsui Bank), from April 1976 to April 1996. However, he was consistently working in a systems-related division, and the THK Group did not do business with Mitsui Bank at the time. Therefore, he is considered to be independent.
Junko Kai March 2022	Reason for selection	In addition to the legal knowledge that she has cultivated over her many years as a lawyer, Junko Kai is a legal expert who possesses a wealth of experience, a history of success, and sound judgment.
Became Outside Director of THK  Significant concurrent positions: Partner at Hamani, Takahashi & Kai Law Firm Outside Director of Narita International Airport Corporation Outside Audit & Supervisory Board Member at JSR Corporation	Independent status	There are no particular conflicts of interest concerning Junko Kai's relationship with THK. Additionally, although she does not have direct experience in corporate management, the Company has determined that she appropriately executes her duties as an outside director because of the aforementioned reasons.
Masakatsu Hioki June 2016 Became Outside Director of THK and Audit and Supervisory Committee Member  Significant concurrent positions: Outside Director of SUKIYA Co., Ltd.	Reason for selection	In addition to possessing sound judgment, Masakatsu Hioki has extensive experience and a proven history of success as an executive responsible primarily for human resources and general affairs at a global manufacturing company.
	Independent status	Masakatsu Hioki began his career with Komatsu Ltd. Although THK and Komatsu do have a business relationship that includes the sale of THK products, the sum value of those transactions equals less than 1% of THK's and Komatsu's consolidated net sales for the corresponding fiscal year. Therefore, he is considered to be independent.
Outside Director of ZUIKO CO., LTD.  Tomitoshi Omura  June 2016	Reason for selection	In addition to the knowledge of corporate accounting he has gained over many years as a certified public accountant, Tomitoshi Omura is an accounting expert who possesses a wealth of experience, a history of success, and sound judgment.
Became Outside Director of THK and Audit and Supervisory Committee Member  Significant concurrent positions: Certified Public Accountant Managing Director of Omura Accounting Office	Independent status	There are no particular conflicts of interest concerning Tomitoshi Omura's relationship with THK. Additionally, although he does not have direct experience in corporate management, the Company has determined that he appropriately executes his duties as ar outside director because of the aforementioned reasons.
Yoshiki Ueda June 2016	Reason for selection	In addition to possessing sound judgment, Yoshiki Ueda has extensive experience and a proven history of success as an executive deeply versed in corporate management, having spent many years at a global company active in machinery-related fields.
Became Outside Director of THK and Audit and Supervisory Committee Member  Significant concurrent positions:  External Director and Chairman of SINTOKOGIO, LTD.	Independent status	Yoshiki Ueda is an External Director of SINTOKOGIO, LTD. Although THK and SINTOKOGIO do have a business relationship that includes the purchase of SINTOKOGIO products, the sum value of those transactions equals less than 1% of THK's and SINTOKOGIO's consolidated net sales for the corresponding fiscal year.

# **Procurement: Suppliers**



### Policy for 2022



- 1. Global procurement and optimizing procurement locations
- 2. Accelerating work speed and boosting work efficiency with DX
- 3. Establishing a structure with suppliers to increase production and promoting improvement activities

### **Continuing Challenges**

#### **Transport Lead Times**

At the beginning of the year, there were issues with extended lead times from lack of containers due to the effects of the coronavirus pandemic, and we were forced to take measures such as increasing order volumes. However, this situation improved along with the global economic slowdown, and in the latter half of the year, we made adjustments appropriate for the situation.

#### **Switching to Lead-Free Products**

On the environmental front, the switch to lead-free products under the European RoHS Directive, which we have been working on since 2020, has been postponed for some components due to the extension of the deadline for exempted items. However, some components that are being shipped to Europe are gradually being switched to lead-free products.



#### 2022 Activities

We carried out a number of activities based on our policies. First, we continued to increase our local procurement ratio by having overseas Group companies and business partners produce the components used in our products. In addition to this, we shortened transportation lead times by supplying these components to Group companies in adjacent countries.

Next, we began a new initiative to accelerate work speed by switching from e-mail communication to use of the cloud for information sharing with transportation companies. As a result, the latest data can now be checked at all times, and an environment that complies with the Electronic Books Preservation Act was secured. Furthermore, we have implemented the automation of order receipt and order placement with sup-

pliers, and it is now possible to send delivery date confirmation e-mails as well as create and distribute requested data.

Finally, in an effort to strengthen ongoing initiatives, we have been working with suppliers on improving dies, fixtures, and tooling in order to increase production capacity; securing the supply chain necessary for increased production; and promoting VA proposal activities. The number of VA proposal submissions increased from 1,052 in 2021 to 1,162 in 2022.

Going forward, we will continue to work on efficiency and the optimization of operations, as well as developing even stronger partnerships with our suppliers.

#### Structure Improvement Timeline

	Up to 2005	2020	2022 onward
Background context	Eliminating hazardous substances from the products we produce and promoting activities to reduce environmental impact to comply with laws and regulations related to the management of chemical substances	Prompt collection and sharing of in- formation with suppliers in the event of a disaster	Building new partnerships with suppliers by promoting cooperation and mutually beneficial relationships with them     Addressing amendments to laws made in recent years and societal demands placed on corporations
Accomplishments	Distributed Green Procurement Guidelines     Elimined substances specified by the European RoHS Directive	Implemented cloud services with each production facility registered	Participated in the Partnership Building Declaration     Integrated and revised master transaction agreement, quality assurance agreement, and memorandums related to the rejection of dealings with criminal organizations     Implemented electronic contract service

# Quality Assurance: Trust, Reliability, and Safety

### **Quality Assurance Structure**



We supply reliable and safe products of superior quality to all customers and provide a complete quality assurance system with global considerations in mind.

THK has established a quality assurance system in which each production facility both in and outside of Japan is certified with the ISO 9001 Quality Management System. We provide a quality assurance system for the industrial machinery business that produces machine tools, semiconductor manufacturing equipment, medical devices, robots, logistics equipment, and seismic isolation and damping systems. With this as our base, we obtain certifications in quality standards adapted for new fields such as the automotive and transportation business and the aerospace industry.

We also work with each of our suppliers to accomplish manufacturing that takes ESG and the SDGs into consideration.

Furthermore, as part of managing our product development process, we review the solutions implemented for any issues during the planning, design, prototype, trial, and mass-production stages, and we work to manage the stability and maintenance of quality levels after mass production.

We have also established a system that allows quality data to be shared globally. In addition to gathering feedback from customers in each region, analyzing it, and providing rapid and appropriate service as a manufacturing and innovative services company, we endeavor to develop products that meet market needs and improve quality.

#### **Quality System Overview**



#### **Quality Management System Certification Status**

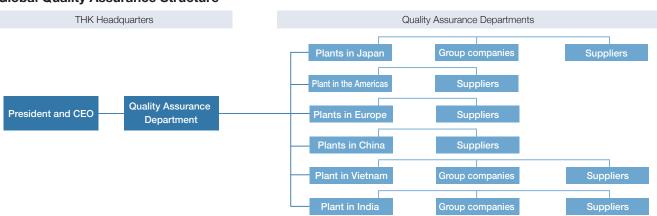
(Facilities)

	ISO 9001	JIS Q 9100 Aerospace Industry	IATF 16949 Automotive Industry
Japan	11	1	4
Outside of Japan	13	_	7
Total	24	1	11

#### **Quality Management Process**

- 1. Development and Design
- Pursue function, performance, and solutions
- Tribology
- Material technology
- Environmental contributions
- 2. Testing and Investigation
- Design review
- Mass production approval
- Analysis and analytical ability
- 3. Purchasing, Production, and Inspection
- Pursue uniform quality all over the world
- Establish process capability
- Production engineering ability
- 4. Providing Service and Gathering Quality Data
- Improve customer satisfaction
- Utilize IoT service
- 5. Analysis of Quality Data and Feedback
- Evaluate quality improvements and market needs

#### **Global Quality Assurance Structure**



# Health and Safety



- 1. We consider the improvement of occupational health and safety to be one of the most important issues for the Production Division, and as we conduct our business activities at each factory, we promote the creation of a safe, healthy, and comfortable workplace by eliminating harmful work environments that may lead to injury or illness.
- We continuously improve our health and safety management system by setting appropriate occupational health and safety goals at each factory and reviewing them annually.
- We strive to improve occupational health and safety by complying with laws such as the Industrial Safety and Health Act and rules relating to occupational health and safety established by the company and workplace.
- 4. Each facility eliminates hazards and causes of harm in the work-

- place through risk assessments and promotes activities with the goal of completely eliminating all potential hazards.
- Each facility promotes the occupational health and safety management system with the active participation and consultation of all employees.
- 6. We acknowledge that the occurrence of accidents and injuries is a direct reflection of the nature and culture of the workplace, and we promote activities to develop correct habits through the use of the occupational health and safety management system.
- 7. This occupational health and safety policy is disseminated to all employees at each plant through education, training, and awareness campaigns, and we facilitate the timely release of information relating to occupational health and safety within and outside the Production Division.

#### 2022 Activity Results

Goal	Activity	Result
Prevent work-related injuries and illnesses	1. Assessing risk	Created a risk reduction plan and implementation report for each workplace and made improvements to achieve 10% reduction in current evaluated risk score.
<ul><li>Zero labor accidents</li><li>Achieve 3.1 million hours without any accidents</li></ul>	Conducting workplace health and safety training	Conducted training at each production facility. Additionally, in response to industrial labor accidents that occurred, training was conducted across five production facilities in order to raise awareness and prevent similar accidents.
(class 1 accident-free record)	Implementing hazard prediction training and soliciting proposals to prevent near miss events	Production: 1 submission/month per group, Support: 1 submission/month per department.
	Communicating and managing up-to-date regulations (Performing chemical substance risk assessments)	Held monthly meetings for reviewing revisions to laws in order to ensure constant awareness of and compliance with their provisions.
	5. Promoting health and safety committee activities	Convened monthly health and safety committees to gather requests from employees and work on continuous improvements.
Continuously improve occupational health and safety performance	Performing internal audits and management reviews	Reciprocal internal audits were performed among five production facilities in May and November.  The 2022 management review was conducted in February 2023.
	7. Implementing traffic safety activities	Health and safety committees at each production facility discussed conditions that led to accidents and how to prevent them.
	Conducting workplace safety patrols	Conducted regular patrols at each production facility. Findings and improvement measures were reported by the relevant departments at each production facility's health and safety committee meeting.
	9. Addressing mental health	Conducted stress checks of all employees under the direction of the headquarters Human Resources & General Affairs Department.
Provide a safe and healthy	Receiving guidance from industrial physicians and implementing disease prevention activities	Had an industrial physician inspect the workplace and provide guidance at the health and safety committee meeting.
workplace	11. Performing regular and special health checks	Conducted regular health checks in addition to special health checks for specific individuals at each production facility.
	12. Managing long work hours (excessive overtime)	Managed and reported on overtime at the monthly health and safety committee meeting at each production facility.

#### **Structure Improvement Timeline**

	Up to 2000	2001 to 2005	2006 to 2010	2011 to 2015	2016 onward
Background context	Strengthened employee health management	Increasing prob- lems surrounding stress, major concerns, and uncertainty in the workplace	Achieved a safe, pleasant environ- ment that is easy to work in	Shared activities and struggles throughout the company and established rules to create a safer and more pleasant work environment     Established company-wide health and safety management system	Continuously improving occupational health and safety performance
Accom- plishments	Established Health Management Office first in the Yamaguchi plant, then at Yamagata, Kofu, and Gifu     Stationed an industrial physician first in the Yamaguchi plant, then at Yamagata, Kofu, Mie, and Gifu	Established an infirmary at the headquarters with a permanently stationed public health nurse	Obtained OHSAS 18001:2007 certification	Headquarters industrial physician and nurse staff at each production facility held regular industrial health staff meetings     Began implementing Year-End No-Ac- cident Month	Obtained ISO 45001:2018 certifi- cation via a transition audit
Events				THK RHYTHM Kyushu plant received certificate of excellence from the Oita Association for Safety of Hazardous Materials.	Yamagata plant received class 1 and class 2 accident-free record certificates     Kofu plant received class 1 accident-free record certificate     THK RHYTHM headquarters and Hamamatsu plant received class 3 accident-free record certificate

# Together with Our Shareholders

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### **Mindset**

THK engages in IR activities in an effort to disclose information in a manner that is fair, impartial, expedient, accurate, and easy to understand. We strive to provide more thorough and valuable information through

events such as financial results briefings and IR meetings, the investor relations section of our website, and the Integrated Report.

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#### **IR Activities**

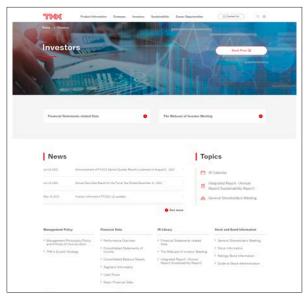
While many Japanese companies have normalized holding their share-holder meetings on the same day, in an aim to have open meetings where more shareholders can participate, THK has held its General Meeting of Shareholders on a Saturday in mid-March (mid-June prior to 2017) every year since 1998. We also work to increase transparency by means such as providing observer seats at this meeting in order for a broad spectrum of people beyond only shareholders, including our business partners and investors, to gain a better understanding of our management.

In addition, an IR Department was established directly beneath the President's Office in 2002 as a means to reduce management risks

and strengthen the dialogue between THK and capital markets. As a specific example of their efforts, in addition to having the CEO present the company's results and strategy at a semiannual financial results briefing, the CEO's visits to institutional investors overseas that began in 2000 were turned into a routine\* practice. This has resulted in the percentage of foreign-owned shares increasing from 23.2% in the 2000 fiscal year to 36.5% in the 2022 fiscal year. THK will continue striving to be a company that is evaluated highly on a global stage through its various IR activities.

\* This practice was discontinued after 2020 due to the coronavirus pandemic.

### The IR Website



#### **IR Library**

In addition to documents related to financial statements, including "Investor Information" compiled from summaries of financial results and detailed financial data, the library also includes the Integrated Report. Presentation materials and videos are available here following the financial results briefings held every year in February and August.

# IR Information E-mail Delivery Service (RIMSNET)

This service sends an electronic newsletter announcing financial results to registrants, who are primarily individual investors.

#### Register at:

https://rims.tr.mufg.jp/?sn=6481



\* The IR Information E-mail Delivery Service is managed by Mitsubishi UFJ Trust and Banking Corporation.

#### **Structure Improvement Timeline**

	Up to 2000	2001 to 2010	2011 onward
Background context	Current CEO assumed office and strength- ened IR structure	Increasing momentum for strengthening IR structure	Increasing momentum for strengthening IR structure
Accomplishments	Began holding General Meeting of Shareholders on a Saturday in mid-June to avoid the period when many shareholder meetings are scheduled Began publishing "Investor Information" Began visiting overseas institutional investors	Established IR Department directly beneath the President's Office     Began SR* visits	Began using RIMSNET service to e-mail individual investors     Changed General Meeting of Shareholders date to a Saturday in mid-March due to the change in the fiscal year     Published Sustainability Report/Integrated Report

<sup>\*</sup> SR: Short for "shareholder relations." Activities aimed at establishing good relations with shareholders.

# Supporting Development



- 1. In addition to promoting work-life balance, we establish a human resources system that treats employees in a way that facilitates the employment of diverse talent.
- 2. We respect the individuality of each employee and support the development of their careers and abilities through education, training, and other opportunities.

We are working to support the development of our employees in order to empower individuals. In addition, we are promoting specific measures to accomplish this goal in alignment with our three growth strategies.

#### Empowering individuals in alignment with our growth strategies

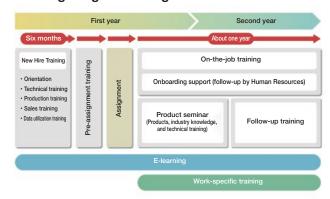
- 1. Full-scale globalization: Developing talent that can succeed globally
- 2. Development of new business areas: Conducting the 66 Project\* and our basic technical training program
- 3. Change in business style: Developing talent that utilizes data to quickly adapt to a digital society
- \* 66 ("Six-Six") Project: Six people from across the Engineering Division lead six project teams to conduct research activities to cultivate new markets.

### **New Hire and Follow-Up Training**

Since 2020, due to the coronavirus pandemic, new hire training has been conducted in a hybrid virtual and in-person format lasting until the end of April. Afterward, new employees undergo a period of practical training at various production facilities and then are sent to their assigned workplaces. Although we have added a great deal of data utilization elements to this training in order to center it around the development of DX talent, the so-called "digital native" new hires joining the company lately exhibit a high level of comprehension and adaptability when it comes to these things. Sensing this, we are now further expanding the data utilization training that we offer to newer employees.

For people in their second year of employment, because they have mostly been working from home since receiving their official assignments, we have been conducting a monthly online check-in with each individual to assess their motivation level. Additionally, we have performed follow-up training in logical communication as a solution to problems in communication with managers and customers.

#### Training Program through the Second Year



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## THK Education Outreach Program and EntSherpa

THK is also pouring energy into external talent development and technical support. One such effort is the THK Education Outreach Program, which was started in 2017 out of a desire to introduce children to the joy of manufacturing. We develop educational materials for middle school technology classes and conduct guest lessons with the goal of using manufacturing education to foster talent that can create and develop, thinking about issues with classmates and arriving at solutions.

THK has also offered a technical support service called Ent-

Sherpa to startup companies since 2021. Using the expertise THK has accumulated over many years, a dedicated team helps spur innovation and provides comprehensive operational support so that startup companies can bring their ideas to fruition and solve technical challenges. More specifically, the team offers services such as immediate responses to online inquiries, technical consultations, advice on product selection, and free product samples.

# **Human Rights**

The THK Group has established the THK Group Human Rights Policy, and we conduct human rights activities in accordance with this policy.

#### THK Group Human Rights Policy

Established: June 2020

The THK Group respects the human rights of all people associated with the THK Group based on its corporate philosophy of "Providing innovative products to the world and generating new trends to contribute to the creation of an affluent society," which represents the pioneering spirit of the THK Group.

#### ■ Basic Concept

The THK Group supports and respects the United Nations Guiding Principles on Business and Human Rights and other international standards regarding human rights. In addition, as a signatory company to the United Nations Global Compact, the THK Group acts in accordance with the Ten Principles of the United Nations Global

Excerpt from our website

#### **Structure**

#### **Committees**

THK has established a Compliance Committee that is chaired by the CEO, and this group works together with its subordinate compliance subcommittees as well as human rights personnel that have been selected at each Group company worldwide in order to foster smooth communication.

#### **THK Group Helpline**

The THK Group provides a helpline for employees to consult about or report matters concerning wrongful acts, legal violations, and unethical behavior, especially issues related to human rights. A separate, dedicated point of contact is also available for incidents of harassment.

#### **Organization Structure**



#### 2022 Activities

#### **Training**

The THK Group has regularly disseminated information and conducted training about human rights topics utilizing a web conference system, in-person training conducted by internal or external instructors, e-learning materials, the company intranet, and internal information boards.

#### 1. Seminar

Using a web conference system, a seminar was held for 64 people in Japan, including human rights personnel, compliance subcommittee members, and HR staff. The materials covered in this seminar were also shared with human rights personnel at overseas Group companies in order to disseminate the information at those locations and educate staff members about respecting human rights.

#### 2. Employee Training

"Compliance Tips" is an internal publication issued quarterly for THK Group employees in Japan in order to improve employee awareness of compliance and to provide information about human rights and how to respect those rights. This publication is posted on the company intranet

and each floor's information board. Compliance subcommittee members also distribute PDF copies to employees.

#### **Working with Suppliers**

The THK Group has distributed its CSR Procurement Guidelines to its suppliers and conducts surveys and interviews in order to confirm supplier compliance. In 2022, a human rights survey was conducted among the Company's suppliers in Japan.

#### Issuing a Statement on the UK Modern **Slavery Act**

In accordance with the provisions of the UK Modern Slavery Act, the THK Group issued a statement on its website in March 2023 regarding its efforts to prevent human rights violations, including slave labor and human trafficking, within the Group and throughout its supply chain in 2022.

# Working toward Carbon Neutrality

Medium- and Long-Term Targets for Carbon Neutrality

### **Medium-Term Target**

- CO<sub>2</sub> emissions in 2030: 50% of 2018 levels
- Scope: THK Japan and Group companies in Japan

#### **Long-Term Target**

- CO2 emissions in 2050: Net zero
- Scope: Entire THK Group

## **Efforts to Prevent Global Warming**

As exemplified by sustainability, society and corporations generate common value through corporate activities that minimize the negative impacts and strengthen the positive. With this mindset of working for the benefit of all in addition to our individual interests, THK is promoting various initiatives to achieve the creation of a sustainable society. In response to risks posed to the world by climate change from global warming in particular, we established medium- and long-term targets for lowering our emissions of greenhouse

gases in August 2021.

First, to minimize our negative impact, we have established the Carbon Neutrality Promotion Project, which is working to further reduce the CO<sub>2</sub> emitted through our business activities. Meanwhile, to strengthen our positive impact, we are expanding our offerings of linear motion and other products and services that contribute to energy conservation. We will accelerate our various initiatives in order to achieve these goals.

## Reflecting on the 2022 Fiscal Year

In 2022, we promoted the following at all production facilities in Japan and overseas:

- Upgraded to LED lighting
- Installed or upgraded equipment for higher efficiency
- Took measures against air leaks
- Installed solar power generation systems
- Coated exterior walls with ceramic insulation
- Continued ongoing energy-saving activities

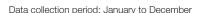
As a result of these efforts, THK Japan and Group companies in Japan achieved a 3% reduction in CO<sub>2</sub> emissions compared to 2018. However, compared to 2021, our emissions have increased by 5% as a result of our increased production volume. Additionally, THK Japan's distribution departments decreased emissions by 18% compared to

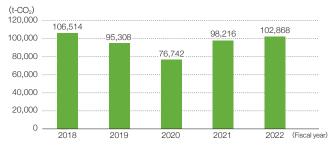
2018, but their emissions have increased by 2% compared to 2021.

Our newly implemented solar power generation equipment has resulted in a 4,206 MWh increase in energy generation across six facilities (the Toyota branch, Yamaguchi plant, THK INTECHS Mishima plant, THK RHYTHM Hamamatsu plant, THK RHYTHM Kyushu plant, and THK Changzhou). This is a 49% increase compared to 2021.

Our energy consumption goal for CO<sub>2</sub> reduction is defined in terms of our production division's energy consumption rate (energy consumption/value added). With an energy consumption result of 0.559, we were not able to meet our 2022 energy consumption goal of 0.532.

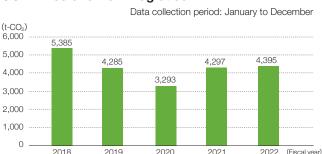
#### CO<sub>2</sub> Emissions





Data includes THK Japan and Group companies in Japan.

#### CO<sub>2</sub> Emissions from Logistics



Data includes five production facilities in Japan (Yamagata, Kofu, Gifu, Mie, and Yamaguchi), two distribution centers (Chubu and Yamaguchi), and three factory centers (Yamagata, Kofu, and Mie).

### Results of Main Activities for 2022

### **Installation of Solar Power Generation System**

Solar power generation systems were installed on part of the roofs of Factories 1 and 3 at the Yamaguchi plant as a new renewable energy equipment installation.

#### Results

• Solar battery capacity: 284 kWh

• Annual energy generation: 323,390 kWh/year • Annual CO2 reduction: 176 tons of CO2/year





Factory 1

Factory 3

#### Introduction of an Electric Vehicle

In the past, a gasoline vehicle was used to go back and forth between the Yamaguchi plant's main factory and the Technical Plant, but we have introduced a single-seat electric vehicle as part of our low-carbon initiatives. This has resulted in an approximately 80% reduction in CO<sub>2</sub> emissions compared to the gasoline vehicle.

#### Results

- Overall distance traveled: 560 km
- CO<sub>2</sub> emissions: 23 kg of CO<sub>2</sub>
- CO<sub>2</sub> reduction (compared to gasoline vehicle): 96 kg of CO<sub>2</sub> (Measured over seven months from July 2022 to January 2023)



Single-seat electric vehicle

### **Transition to Low-Carbon Equipment**

The Yamagata plant has transitioned from an oil-burning hot water boiler to one that uses LPG (liquefied petroleum gas) as a low-carbon initiative.

#### Results

• Annual CO2 reduction: 540 tons of CO2/year



Hot water boiler

### **Working to Promote Carbon Neutrality**

As we continue our existing efforts for the sake of accomplishing carbon neutrality, we are promoting the execution of countermeasures arising from the identification of the main risks and opportunities related to climate change analyzed in accordance with TCFD recommendations. Specifically, through efforts such as the early adoption of LED lighting, expanding our installation of solar power generation systems, and transitioning to non-fossil energy alongside our continued development of products that further contribute to energy and labor savings, we are continuing to conduct business with greater consideration for the environment and contributing to the creation of an affluent and sustainable society.

# **Environmental Activities**

### Third-Party Verification of Greenhouse Gas Emissions

In order to ensure the accuracy of our emissions data on greenhouse gas (GHG) that comes from THK's energy consumption, we requested verification by the Japan Quality Assurance Organization for Scope 11 and Scope 22 GHG emissions calculations from five THK factories (Yamagata, Kofu, Gifu, Mie, and Yamaguchi) for the 2022 fiscal year (January 1 to December 31, 2022).

As a result, we have received third-party verification from the Japan Quality Assurance Organization that the GHG calculations for both scopes are in accordance with ISO 14064-3 calculation rules (at a limited level of assurance for the ISO 14064-3 verification standard).

#### 2022 THK CO., LTD. GHG Emissions Calculation Report

2022 fiscal year: January 1 to December 31, 2022

Scope: Five factories (Yamaguchi, Yamagata, Kofu, Mie, and Gifu) Target items: CO<sub>2</sub> created by Scope 1 and 2 energy consumption

Scope 1	9,171 t-CO <sub>2</sub>
Scope 2	66,967 t-CO <sub>2</sub>
Total	76,138 t-CO <sub>2</sub>

#### **Greenhouse Gas Emissions Verification Report**

#### APL

No. 1811004502

#### **Greenhouse Gas Emissions** Verification Report

#### To: THK CO., LTD.

1. Objective and Scope (Japan Quality Assurance Organization (hereafter "JQA") was engaged by THK CO, LTD. (hereafter "the Company") to provide an independent verification on "FY2022" GHIG finisions Calculation Report" (hereafter "the Report"). The content of our verification was to express our conclusion, based on our verification procedures, on whether the statement of information regarding the FY2022 GHIG emissions in the Report was correctly measured and calculated, in accordance with the "TSS-G00-00001: GHIG Emissions Calculation Rules (Scope 1 and 2)" (hereafter "the Rule"). The purpose of the verification is to evaluate the Report objectively and to enhance the credibility of the Report.

\*The fiscal year 2022 of the Company ended on December 31, 2022.

2. Procedures Performed QA conducted verification in accordance with "ISO 14064-3". The scope of this verification assignment covers energy-derived CO2 emissions from Scope 1 and 2. The verification was conducted to a limited level of assurance, and quantitative materiality was set at 5 percent of the total emissions in the Report. The organizational boundaries of this verification are five domestic production sites of the Company.

Our verification procedures included:

- reation procedures incauder:

  Performing validation of integrated functions to check the Rule.

  Holding on-site verification at the Company's two sites: Yamaguchi Plant and Yamagata Plant.
- The sampling sites for on-site assessment were selected by the Company.

  On-site assessment to check the Report boundaries, GHG sources, monitoring points, monitoring and calculation system and its controls.
- Vouching: Cross-checking the GHG emissions data against evidence

CONCINSION
 Based on the procedures described above, nothing has come to attention that caused us to believe that the information regarding
the Company's FY2022 GHG emissions in the Report is not materially correct, or has not been prepared in accordance with the

4. Consideration

Orango was responsible for preparing the Report, and JQA's responsibility was to conduct verification of GHG emissions in the Report only. There is no conflict of interest between the Company and JQA.

Sumio Aseda, Board Director
For and on behalf of Jupun Quality Assurance Organ
1-25, Kardasudesho, Chiyoda-ku, Tokyo, Japan
April 10, 2023

\*Please refer to the annex in the next page.

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#### Greenhouse Gas Emissions Verification Report (Appendix)

# APL No. 1811004502 **Greenhouse Gas Emissions** Verification Report ANNEX To: THK CO., LTD. The organizational boundaries of the verification: Nel. Site Name: Yamaguchi Plant Address: 1173 Yamanoi, Sanyo Onoda City, Yamaguchi Prefecture 757-0003, Japan №2. Site Name: Yamagata Plant Address : 5600 Oaza Higashine-ko, Higashine City, Yamagata Prefecture 999-3701, Japan Nº3. Site Name: Kofu Plant Address : 754 Nakadate, Chuo City, Yamanashi Prefecture 409-3801, Japan No4. Site Name: Mie Plant Address : 1088 Hirabayashi, Nyudera-cho, Matsuzaka City, Mie Prefecture 515-0832, Japan Address : 615 Sekigahara-cho, Fuwa-gun, Gifu Prefecture 503-1512, Japan \*Please refer to the previous page 2/2

<sup>&</sup>lt;sup>1</sup> Scope 1: Direct greenhouse gas emissions that a business generates itself

<sup>&</sup>lt;sup>2</sup> Scope 2: Indirect emissions that accompany the use of electricity, heat, or steam supplied by other companies

# THK Group Business Activity Environmental Impact Overview<sup>1</sup>

(Data collection period: January to December 2022)

**INPUT** 

#### OUTPUT

#### Material Procurement

#### **Production Materials Used**

	2021	2022	Change
Main raw materials (t)	117,084	123,335	5%
Main indirect materials (t)	1,667	1,869	12%
Packaging materials (t)	7,588	8,542	13%

#### Production

#### **Resources Used**

	2021	2022	Change
Bunker A fuel oil (kL)	2,505	2,662	6%
Liquefied natural gas (t)	247	226	-8%
Propane (t)	1,598	1,752	10%
Kerosene (kL)	9	14	54%
Electricity (MWh)	307,007	327,631	7%
Water (1,000 m <sup>3</sup> )	623	683	10%

#### Renewable Energy<sup>2</sup>

	2021	2022	Change
Solar power generated (MWh)	2,826	4,206	49%

#### **Production Volume**

	2021	2022	Change
Production volume (t)	77,590	91,174	18%

#### Waste

	2021	2022	Change
Total waste (t)	22,432	24,281	8%
Recycled (t)	19,442	20,946	8%
Disposed (t)	2,399	2,675	11%

#### Air Emissions (Production)

	2021	2022	Change
Air emissions of PRTR substances <sup>3</sup> (kg)	963	971	1%
CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	183,809	195,299	6%

#### **Water Discharge**

	2021	2022	Change
Water discharge (1,000 m³)	306	329	8%

#### Logistics<sup>4</sup>

#### **Fuel for Vehicles**

	2021	2022	Change
Gasoline (kL)	101	125	24%
Diesel (kL)	1,569	1,586	1%

#### Air Emissions (Transport)

	2021	2022	Change
CO <sub>2</sub> emissions (t-CO <sub>2</sub> )	4,297	4,395	2%

#### **Target and Results**

Item	Target	Result
Conserving energy and preventing global warming	Reduce energy consumption and CO <sub>2</sub> emissions	Target consumption rate was 0.532. Result was 0.559.
Promotion of waste reduction and recycling	Maintain zero emissions (final disposal volume of less than 0.50%)	Target was 0.50%. Result was 0.14%.
Managing hazardous materials	Reduce use of PRTR substances by 3% every year compared to the baseline year	Target was 49,268 kg. Result was 35,472 kg.

<sup>&</sup>lt;sup>1</sup> The overview of our environmental impact is based on data from the following production facilities: Twelve production facilities in Japan: Yamagata, Kofu, Gifu, Mie, Yamaguchi, THK NIIGATA, THK INTECHS (Sendai and Mishima), NIPPON SLIDE, and THK RHYTHM (Hamamatsu, Inasa, and Kyushu), and eight production facilities outside of Japan: TMA (USA), TME (France), TMI (Ireland), DALIAN THK (China), THK Wuxi (China), THK Liaoning (China), THK Changzhou (China), and TMV (Vietnam).

Plant Visitation.

2 Data was collected from six facilities: Toyota branch, Yamaguchi plant, THK INTECHS Mishima plant, THK RHYTHM Hamamatsu plant, THK RHYTHM Kyushu plant, and THK Changzhou.

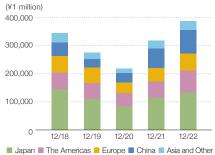
<sup>&</sup>lt;sup>3</sup> Data was collected from the 12 production facilities in Japan.

<sup>&</sup>lt;sup>4</sup> Data was collected from five production facilities in Japan (Yamagata, Kofu, Gifu, Mie, and Yamaguchi); two distribution centers (Chubu and Yamaguchi); and three factory centers (Yamagata, Kofu, and Mie).

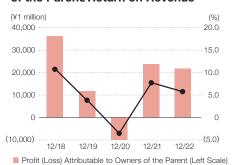
# Financial and Non-Financial Highlights

(Millions of yen)	3/2012	3/2013	3/2014	3/2015	3/2016	
Revenue <sup>1</sup>	196,866	168,366	185,466	217,678	240,478	
Japan	117,900	101,443	101,052	113,361	110,498	
The Americas	22,279	22,527	28,900	34,856	50,343	
Europe	19,979	15,194	18,427	20,456	30,424	
China	17,087	13,203	19,351	28,302	27,967	
Asia and Other	19,620	15,996	17,734	20,700	21,243	
Gross Profit	53,975	44,298	52,903	67,024	67,766	
Operating Profit (Loss)	19,745	11,692	17,370	28,388	23,169	
Profit (Loss) before Income Taxes	18,520	14,737	24,004	33,501	19,612	
Profit (Loss) Attributable to Owners of the Parent	12,641	9,808	15,590	22,705	13,575	
Total Assets	288,333	293,145	336,416	373,610	407,808	
Total Equity	175,516	189,058	222,148	250,498	250,540	
Per Share (yen)						
Profit (Loss) -Basic	98.31	76.96	123.16	179.36	107.24	
Profit (Loss) - Diluted	_	_	_	_	_	
Equity Attributable to Owners of the Parent	1,352.00	1,479.41	1,736.51	1,957.48	1,953.97	
Cash Dividend	20	18	26	50	50	
	40.4	00.7	45.5	47.0		
Overseas Revenue Ratio (%)	40.1	39.7	45.5	47.9	54.1	
Operating Margin (%)	10.0	6.9	9.4	13.0	9.6	
Ratio of Profit to Equity Attributable to Owners of the Parent (ROE) (%)	7.4	5.4	7.7	9.7	5.5	
Return on Assets (ROA) (%) <sup>2</sup>	7.1	4.2	5.7	8.2	6.1	
Equity Ratio Attributable to Owners of the Parent (%)	60.3	63.9	65.3	66.3	60.7	

#### Revenue

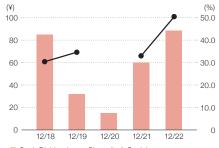


# Profit (Loss) Attributable to Owners of the Parent/Return on Revenue



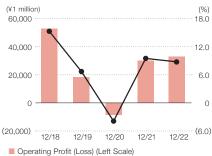
Return on Revenue (Right Scale)

#### Cash Dividends per Share/ Payout Ratio



Cash Dividends per Share (Left Scale)Payout Ratio (Right Scale)

# Operating Profit (Loss)/ Operating Margin



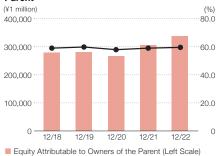
Operating Margin (Right Scale)

#### Return on Assets (ROA)/ Ratio of Profit to Equity Attributable to Owners of the Parent (ROE)



Ratio of Profit to Equity Attributable to Owners of the Parent (ROE)

#### Equity Attributable to Owners of the Parent/ Ratio of Equity Attributable to Owners of the



Equity Attributable to Owners of the Parent (Left Scale)
 Ratio of Equity Attributable to Owners of the Parent (Right Scale)

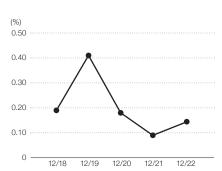
In an effort to better facilitate the global comparison of financial information in the capital market and to strengthen its global financial management by standardizing accounting processes, the THK Group decided to adopt the International Financial Reporting Standards (IFRS) beginning with the 2019 fiscal year. To facilitate comparison with the 2019 fiscal year, the results from the 2018 fiscal year are also noted in accordance with IFRS.

3/2017	12/2017 <sup>3</sup>	12/2018	12/2019	12/2020	12/2021	12/2022
273,577	286,603	344,718	274,599	218,998	318,188	393,687
112,061	99,099	145,238	109,424	84,675	115,517	134,660
63,025	67,194	59,792	58,390	46,097	56,369	78,684
46,004	54,001	57,540	53,766	37,625	49,014	62,507
29,513	41,410	48,554	30,996	34,006	68,662	84,046
22,971	24,896	33,592	22,021	16,594	28,624	33,789
70,464	72,112	101,985	67,469	46,430	79,753	105,288
24,653	29,279	52,848	18,277	(8,499)	30,268	34,460
23,057	31,034	52,262	18,168	(9,725)	29,984	35,596
16,731	25,729	36,100	11,690	(9,992)	23,007	21,198
414,931	436,664	471,369	468,945	460,173	516,086	560,304
251,540	281,754	289,278	291,132	275,148	314,289	337,281
132.18	203.28	285.23	92.37	(78.95)	181.97	172.67
_	_	_	_	_	_	_
1,966.80	2,140.71	2,198.17	2,214.98	2,105.54	2,442.90	2,707.51
41	62	85	32	15	60	87
50.0	05.4			01.0	00.7	05.0
59.0	65.4	57.9	60.2	61.3	63.7	65.8
9.0	10.2	15.3	6.7	(3.9)	9.5	8.8
6.7	9.9	13.3	4.2	(3.7)	8.1	6.7
6.1	7.0	11.2	4.1	(1.7)	6.3	6.6
60.0	62.0	59.0	59.8	57.9	59.0	59.2
0.67	0.67	0.75	0.58	0.47	0.65	0.73

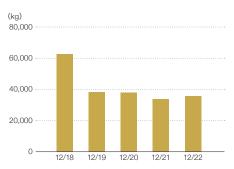
#### CO<sub>2</sub> Emissions

# (t-CO<sub>2</sub>) 120,000 90.000 60,000 30,000 0 -

#### **Zero Emissions Rate**



#### **PRTR-Designated Substances**



This data was taken from the following facilities:

CO<sub>2</sub> Emissions: THK and Group companies in Japan Zero Emission Rate and PRTR-Designated Substances: Twelve production facilities in Japan (Yamagata, Kofu, Gifu, Mie, Yamaguchi, THK NIIGATA,

THK INTECHS (Sendai and Mishima), NIPPON SLIDE, and THK RHYTHM (Hamamatsu, Inasa, and Kyushu))

HR Data (Parent Company)	12/2018	12/2019	12/2020	12/2021	12/2022
Number of Employees (Consolidated)	13,478	13,260	12,914	13,073	13,502
Number of Employees (Non-consolidated)	3,773	3,891	3,957	3,968	4,058
Average Years of Service	17.1	17.3	17.6	18.1	18.2
Ratio of Female Employees (%)	14.4	15.0	15.1	15.3	15.5
Individuals on Childcare Leave	46	52	56	65	54
Turnover Ratio (%)	1.8	1.5	1.2	1.7	2.4
Percentage of Employees with Disabilities (%)	2.12	2.30	2.32	2.23	2.19

- 1 Segments are based on the country or region where THK's customers are located.
- <sup>2</sup> Return on assets (ROA) represents operating profit (loss) plus interest and dividend income as a percentage of average total assets
- 3 This data reflects a modified reporting period that includes 9 months from consolidated companies whose fiscal years ended in March and 12 months from consolidated companies whose fiscal years ended in December.

# **Consolidated financial statements**

# **Consolidated statements of financial position**

		(Willions of Tell)
	Previous Fiscal Year (December 31, 2021)	Current Fiscal Year (December 31, 2022)
Assets	_	
Current assets		
Cash and cash equivalents	151,430	163,835
Trade and other receivables	86,293	96,665
Inventories	64,378	77,630
Other financial assets	0	1,500
Other current assets	11,818	13,309
Total current assets	313,922	352,942
Non-current assets		
Property, plant and equipment	158,135	172,342
Goodwill and intangible assets	18,744	9,321
Investments accounted for using the equity method	6,048	6,814
Other financial assets	10,388	10,571
Deferred tax assets	5,530	5,305
Retirement benefit asset	3,224	2,926
Other non-current assets	90	80
Total non-current assets	202,163	207,361
Total assets	516,086	560,304
-		

Previous Fiscal Year (December 31, 2021)	Current Fiscal Year (December 31, 2022)		
<del>-</del>	•		
40.004	51 (21		
49,984	51,631		
2,545	22,961		
2,931	3,732		
341	129		
7,964	7,169		
14,831	17,538		
78,599	103,162		

	(December 31, 2021)	(December 31, 2022)
Liabilities and equity		
Liabilities		
Current liabilities		
Trade and other payables	49,984	51,631
Bonds and borrowings	2,545	22,961
Other financial liabilities	2,931	3,732
Provisions	341	129
Income taxes payable	7,964	7,169
Other current liabilities	14,831	17,538
Total current liabilities	78,599	103,162
Non-current liabilities		
Bonds and borrowings	99,212	97,917
Other financial liabilities	10,128	9,130
Retirement benefit liabilities	5,701	4,256
Provisions	189	179
Deferred tax liabilities	5,396	5,939
Other non-current liabilities	2,569	2,437
Total non-current liabilities	123,197	119,860
Total liabilities	201,796	223,023
Equity		
Common stock	34,606	34,606
Capital surplus	40,413	40,094
Retained earnings	233,607	245,941
Treasury stock	(11,237)	(17,160)
Other components of equity	7,165	28,406
Total equity attributable to owners of the parent	304,555	331,887
Non-controlling interests	9,733	5,393
Total equity	314,289	337,281
Total liabilities and equity	516,086	560,304
Total natifices and equity	310,000	300,304

# Consolidated statements of profit or loss

	_	(Millions of Tell)
	Previous Fiscal Year	Current Fiscal Year
	(From January 1, 2021	(From January 1, 2022
	to December 31, 2021)	to December 31, 2022)
Revenue	318,188	393,687
Cost of sales	238,434	288,398
Gross profit	79,753	105,288
Selling, general and administrative expenses	50,988	58,991
Other income	2,316	2,015
Other expenses	1,171	14,421
Share of profit of investments accounted for	358	569
using the equity method		
Operating income	30,268	34,460
Financial income	2,145	3,335
Financial costs	2,430	2,199
Profit before tax	29,984	35,596
Income tax expense	6,820	14,785
Profit	23,164	20,811
Profit attributable to:		
Owners of the parent	23,007	21,198
Non-controlling interests	157	(386)
Profit	23,164	20,811
Earnings per share		
Basic earnings per share (yen)	181.97	172.67
Diluted earnings per share (yen)	_	- , <b>-</b> , -

(Mil	llions of Yen)
rent Fi	scal Year
т	1 2022

		()
	Previous Fiscal Year	Current Fiscal Year
	(From January 1, 2021 to December 31, 2021)	(From January 1, 2022 to December 31, 2022)
Profit		
Pront	23,164	20,811
Other comprehensive income		
Items that will not be reclassified to profit or		
loss		
Financial assets measured at fair value		
through other comprehensive income	28	(482)
Remeasurements of defined benefit plans	2,062	649
Share of other comprehensive income of	_,	0.5
investments accounted for using the equity	(46)	(59)
method	(10)	(33)
Total of items that will not be reclassified to		
profit or loss	2,044	108
profit of loss		
Items that may be reclassified to profit or loss		
Exchange differences on translation of	22.601	20.027
foreign operations	22,601	20,937
Share of other comprehensive income of		
investments accounted for using the equity	124	511
method		
Total of items that may be reclassified to	22.725	21 440
profit or loss	22,725	21,449
Other comprehensive income, net of tax	24,770	21,557
Comprehensive income	47,934	42,369
· -		
Comprehensive income attributable to:		
Owners of the parent	46,696	42,086
Non-controlling interests	1,237	282
Comprehensive income	47,934	42,369
=		

# Consolidated statements of changes in equity Previous fiscal year (from January 1, 2021 to December 31, 2021)

		Equity attri	butable to owner	ers of the paren	t
					Other components of equity
	Common stock	Capital surplus	Retained earnings	Treasury stock	Exchange differences on translation of foreign operations
Beginning balance	34,606	40,413	219,712	(14,006)	(16,201)
Profit	-	-	23,007	_	_
Other comprehensive income	-	-	-	-	21,707
Total comprehensive income	_	_	23,007	_	21,707
Purchase of treasury stock	_	_	_	(5,088)	-
Cancellation of treasury stock	_	_	(7,857)	7,857	-
Dividends	_	_	(3,543)	_	_
Transfer from other components of equity to retained earnings	_	_	2,288	_	_
Other	-	-	-	_	_
Total transactions with owners	_	_	(9,112)	2,768	_
Ending balance	34,606	40,413	233,607	(11,237)	5,506

	Equity	attributable to				
	Other o	omponents of	_			
	Financial assets measured at fair value through other comprehen sive income	Remeasure ments of defined benefit plans	Subtotal	Total	Non- controlling interests	Total equity
Beginning balance	1,966	-	(14,235)	266,491	8,657	275,148
Profit	-	-	-	23,007	157	23,164
Other comprehensive income	30	1,951	23,689	23,689	1,080	24,770
Total comprehensive income	30	1,951	23,689	46,696	1,237	47,934
Purchase of treasury stock	_	_	_	(5,088)	-	(5,088)
Cancellation of treasury stock	_		_	-		_
Dividends	_	_	_	(3,543)	_	(3,543)
Transfer from other components of equity to retained earnings	(337)	(1,951)	(2,288)	_	_	_
Other	_	_	_	_	(161)	(161)
Total transactions with owners	(337)	(1,951)	(2,288)	(8,632)	(161)	(8,794)
Ending balance	1,658		7,165	304,555	9,733	314,289

(Mil	lions	of	Y	en	)
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		Equity attri	butable to owne	ers of the paren	t
					Other components of equity
	Common stock	Capital surplus	Retained earnings	Treasury stock	Exchange differences on translation of foreign operations
Beginning balance	34,606	40,413	233,607	(11,237)	5,506
Profit	_	_	21,198	_	_
Other comprehensive income	-	-	-	-	20,779
Total comprehensive income		_	21,198	-	20,779
Purchase of treasury stock	_	_	_	(5,958)	_
Disposal of treasury stock	_	3	_	36	-
Dividends	_	_	(9,460)	_	_
Changes in ownership interest in subsidiaries	-	(323)	_	-	948
Transfer from other components of equity to retained earnings	_	_	595	_	_
Other	-	_	_	_	_
Total transactions with owners	_	(319)	(8,864)	(5,922)	948
Ending balance	34,606	40,094	245,941	(17,160)	27,234

		attributable to		c parent	<del>_</del>	
		components of	equity			
	Financial assets measured at fair value through other comprehen sive income	Remeasure ments of defined benefit plans	Subtotal	Total	Non- controlling interests	Total equity
Beginning balance	1,658	_	7,165	304,555	9,733	314,289
Profit	_	_	_	21,198	(386)	20,811
Other comprehensive income	(487)	595	20,888	20,888	669	21,557
Total comprehensive income	(487)	595	20,888	42,086	282	42,369
Purchase of treasury stock	_	_	_	(5,958)	_	(5,958)
Disposition of treasury stock	_	_	_	39	_	39
Dividends	_	_	_	(9,460)	_	(9,460)
Changes in ownership interest in subsidiaries	_	-	948	624	(3,865)	(3,240)
Transfer from other components of equity to retained earnings	-	(595)	(595)	-	-	-
Other	_	_	_	_	(758)	(758)
Total transactions with owners	_	(595)	352	(14,754)	(4,623)	(19,377)
Ending balance	1,171		28,406	331,887	5,393	337,281

## **Consolidated statements of cash flows**

	-	(Millions of Yen)
	Previous Fiscal Year	Current Fiscal Year
	(From January 1, 2021	(From January 1, 2022
	to December 31, 2021)	to December 31, 2022)
Cash flows from operating activities		
Profit before tax	29,984	35,596
Depreciation and amortization	18,748	20,834
Impairment losses	_	13,641
Increase (decrease) in retirement benefit assets or	(2	(412)
liabilities	63	(413)
Financial income	(2,145)	(3,335)
Financial costs	1,719	1,086
Share of profit of investments accounted for	(250)	(5(0)
using the equity method	(358)	(569)
(Increase) decrease in trade and other receivables	(24,898)	(9,481)
(Increase) decrease in inventories	(14,196)	(9,714)
Increase (decrease) in trade and other payables	10,601	2,477
Other	(958)	491
Subtotal	18,559	50,613
Interests and dividends received	622	1,109
Interests paid	(322)	(331)
Income taxes paid	(3,216)	(13,830)
Net cash provided by (used in) operating		
activities	15,643	37,561
Cash flows from investing activities		
Purchase of property, plant and equipment	(19,248)	(29,407)
Proceeds from sale of property, plant and	(17,210)	(2),107)
equipment	46	435
Purchase of other financial assets	(215)	(551)
Proceeds from sales of other financial assets	507	10
Other	(215)	(568)
Net cash provided by (used in) investing	(213)	(300)
activities	(19,125)	(30,081)
Cash flows from financing activities Repayments of long-term borrowings	(2.195)	(2.195)
Proceeds from issuance of bonds	(2,185)	(2,185)
	( <b>5</b> 000)	20,000
Purchase of treasury stock	(5,088)	(5,958)
Dividends paid	(3,568)	(9,582)
Dividends paid to non-controlling interests	(98)	(766)
Repayments of lease liabilities	(1,785)	(1,916)
Payments for acquisition of interests in	_	(3,240)
subsidiaries from non-controlling interests		-
Net cash provided by (used in) financing	(12,725)	(3,649)
activities	· · · · · · · · · · · · · · · · · · ·	
Effect of exchange rate changes on cash and cash	8,799	8,573
equivalents		
Net increase (decrease) in cash and cash	(7,408)	12,404
equivalents	(,,)	,
Cash and cash equivalents at the beginning of the	158,839	151,430
year		
Cash and cash equivalents at the end of the year	151,430	163,835

### **Segment information**

#### (1) Overview of reportable segments

The reportable segments of the Group are those for which separate financial information is available among the Company's constituent units, and are subject to regular review by the Board of Directors in order to determine the allocation of management resources and evaluate performance.

The Group manufactures and sells machine element components such as LM (linear motion) guides and ball screws, and transportation equipment element parts such as link balls and suspension ball joints. In Japan, the Company and domestic subsidiaries are in charge, and overseas, independent local subsidiaries are in charge of each region, and we are developing comprehensive strategies and developing business activities in each region.

Therefore, the Group's compositional units are based on the manufacturing and sales system, and reportable segments consist of five regional segments: Japan, The Americas, Europe, China, and Others.

#### (2) Information on reportable segments

Accounting policies for reportable segments are the same as the Group's accounting policies.

Intersegment sales is based on prevailing market prices.

Previous fiscal year (from January 1, 2021 to December 31, 2021)

(Millions of Yen)

		Repo	rtable Segr	nents			Adjustment	Consoli-
	Japan	The Americas	Europe	China	Other	Total	(Note 3)	dated
Revenue								
Revenue to external customers	123,373	57,220	50,247	67,072	20,274	318,188	_	318,188
Intersegment revenue	69,263	79	200	2,565	2,759	74,868	(74,868)	_
Total	192,636	57,299	50,448	69,638	23,033	393,056	(74,868)	318,188
Segment income (loss) (Note 4)	22,262	(1,134)	(1,337)	9,459	2,278	31,529	(1,260)	30,268
Financial income	5,719	2	1,532	483	32	7,770	(5,625)	2,145
Financial costs	1,700	189	607	19	95	2,612	(182)	2,430
Profit (loss) before tax	26,280	(1,321)	(411)	9,923	2,216	36,688	(6,703)	29,984
Segment assets	440,575	80,456	105,001	90,651	31,307	747,992	(231,906)	516,086
Other items								
Depreciation and amortization	7,537	3,279	2,708	4,166	746	18,438	(331)	18,106
Investments accounted for using the equity method	6,048	_	_	_	_	6,048	_	6,048
Share of profit of investments accounted for using the equity method	358	_	_	_	_	358	_	358
Capital expenditures	1,645	877	769	298	97	3,689	_	3,689

(Notes) 1. Country or region classification is based on geographical proximity.

- 2. Main countries or regions belonging to each category other than Japan and China
  - (1) The Americas ..... U.S.A., etc.
  - (2) Europe ····· Germany, France, etc.
  - (3) Others ..... Taiwan, Singapore, etc.
- 3. Adjustments are as follows.
  - (1) Segment income (loss) adjustment amount of Y(1,260) million is the elimination of intersegment transactions.
  - (2) Segment assets adjustment of  $\frac{1}{2}(231,906)$  million is the eliminations of intersegment transactions.
  - (3) Depreciation and amortization adjustment of  $\mathbb{Y}(331)$  million is the intersegment adjustments.
- 4. Segment income (loss) is adjusted with operating profit (loss) in the consolidated statements of profit or loss.

		Repo	rtable Segr	nents			A dinatus ant	Canaali
	Japan	The Americas	Europe	China	Other	Total	Adjustment (Note 3)	Consoli- dated
Revenue								
Revenue to external customers	144,189	80,855	62,715	83,312	22,614	393,687	_	393,687
Intersegment revenue	79,270	253	453	5,443	4,265	89,687	(89,687)	=
Total	223,459	81,109	63,169	88,755	26,880	483,374	(89,687)	393,687
Segment income (loss) (Note 4)	17,014	(2,351)	(9,684)	13,773	2,861	21,613	12,847	34,460
Financial income	7,654	546	732	700	53	9,688	(6,352)	3,335
Financial costs	941	264	1,644	25	173	3,048	(849)	2,199
Profit (loss) before tax	23,727	(2,069)	(10,595)	14,449	2,741	28,252	7,344	35,596
Segment assets	451,156	91,454	107,745	100,490	38,251	789,098	(228,794)	560,304
Other items								
Depreciation and amortization	8,111	3,738	3,072	4,644	1,093	20,660	(286)	20,374
Impairment losses	1,286	2,094	9,620	1,009	12	14,024	(382)	13,641
Investments accounted for using the equity method	6,814	_	_	_	_	6,814	_	6,814
Share of profit of investments accounted for using the equity method	569	_	_	_	_	569	_	569
Capital expenditures	2,180	786	236	232	_	3,436	_	3,436

- (Notes) 1. Country or region classification is based on geographical proximity.
  - 2. Main countries or regions belonging to each category other than Japan and China
    - (1) The Americas ..... U.S.A., etc.
    - (2) Europe ..... Germany, France, etc.
    - (3) Others ..... Taiwan, Singapore, etc.
  - 3. Adjustments are as follows.
    - (1) Segment income (loss) adjustment amount of ¥12,847 million is the elimination of intersegment transactions.
    - (2) Segment assets adjustment of \$(228,794) million is the eliminations of intersegment transactions.
    - (3) Depreciation and amortization adjustment of \(\frac{4}{286}\) million is the intersegment adjustments.
    - (4) Impairment loss adjustments of  $\frac{1}{2}(382)$  million is the intersegment adjustments.
  - 4. Segment income (loss) is adjusted with operating profit (loss) in the consolidated statements of profit or loss.

#### (3) Information on products and services

Revenue to external customers for each product and service is as follows.

(Millions of Yen)

	Previous Fiscal Year (From January 1, 2021 to December 31, 2021)	Current Fiscal Year (From January 1, 2022 to December 31, 2022)
Industrial machinery business	233,111	285,001
Automotive & transportation business	85,077	108,685
Total	318,188	393,687

#### (4) Information by region

The regional breakdown of revenue and non-current assets is as follows.

Revenue to external customers

(Millions of Yen)

	Previous Fiscal Year (From January 1, 2021 to December 31, 2021)	Current Fiscal Year (From January 1, 2022 to December 31, 2022)
Japan	115,517	134,660
The Americas	56,369	78,684
Europe	49,014	62,507
China	68,662	84,046
Other	28,624	33,789
Total	318,188	393,687

(Note) Revenue is based on the location of the sales destination.

Non-current assets

(Millions of Yen)

	Previous Fiscal Year (December 31, 2021)	Current Fiscal Year (December 31, 2022)
Japan	78,709	83,316
The Americas	23,788	24,980
Europe	29,588	21,598
China	33,275	38,019
Other	11,519	13,749
Total	176,880	181,663

(Note) Non-current assets are based on the location of the assets and do not include financial instruments, deferred tax assets, and retirement benefit assets.

#### (5) Information on major customers

Not applicable as there is no single external customer whose revenue is 10% or more of consolidated revenue.

Pages 68 through 78 are a partial excerpt from the Annual Securities Report.

Please see the THK website (https://www.thk.com/) for the full text of the Annual Securities Report and all included notes.

# Subsidiaries & Affiliate

As of December 31, 2022

Subsidiary	Main Operations	Location	Percentage Owned by the Company, Directly or Indirectly (%)
THK INTECHS CO., LTD.	Manufacture and sale of vital machinery components and machinery	Tokyo, Japan	100.00
TALK SYSTEM CO., LTD.	Sale of machinery parts and various types of equipment	Tokyo, Japan	99.00
THK NIIGATA CO., LTD.	Manufacture of ball splines	Niigata, Japan	100.00
THK RHYTHM CO., LTD.	Transportation equipment-related business	Shizuoka, Japan	100.00
NIPPON SLIDE CO., LTD.	Manufacture and sale of slide rails	Tokyo, Japan	100.00
TRA Holdings CO., LTD.	Holding and management company	Tokyo, Japan	100.00
THK Holdings of America, L.L.C.	Holding and management company	Illinois, U.S.A.	100.00
THK America, Inc.	Sale of LM Guide, ball screws	Illinois, U.S.A.	100.00
THK Manufacturing of America, Inc.	Manufacture of LM Guide, special bearings	Ohio, U.S.A.	100.00
THK RHYTHM NORTH AMERICA CO., LTD.	Transportation equipment-related business	Tennessee, U.S.A.	100.00
THK RHYTHM MEXICANA, S.A. DE C.V.	Transportation equipment-related business	Guanajuato, Mexico	100.00
THK RHYTHM AUTOMOTIVE MICHIGAN CORPORATION	Transportation equipment-related business	Michigan, U.S.A.	100.00
THK RHYTHM AUTOMOTIVE CANADA LIMITED	Transportation equipment-related business	Ontario, Canada	100.00
THK Europe B.V.	Holding and management company	Amsterdam, Netherlands	100.00
THK GmbH	Sale of LM Guide, ball screws	Ratingen, Germany	100.00
THK France S.A.S.	Sale of LM Guide, ball screws	Tremblay-en-France, France	100.00
THK Manufacturing of Europe S.A.S.	Manufacture of LM Guide, ball screws	Ensisheim, France	100.00
THK Manufacturing of Ireland Ltd.	Manufacture of ball screws	Dublin, Ireland	100.00
THK RHYTHM AUTOMOTIVE GmbH	Transportation equipment-related business	Düsseldorf, Germany	100.00
THK RHYTHM AUTOMOTIVE CZECH a.s.	Transportation equipment-related business	Dacice, Czech Republic	100.00
THK CAPITAL UNLIMITED COMPANY	Financing and capital management for affiliated companies in the Americas	Dublin, Ireland	100.00
THK FINANCE UNLIMITED COMPANY	Financing and capital management for affiliated companies in Europe	Dublin, Ireland	100.00
THK (CHINA) CO., LTD.	Holding and management company, sale of LM Guide	Dalian, China	100.00
THK (SHANGHAI) CO., LTD.	Sale of LM Guide, ball screws	Shanghai, China	100.00
DALIAN THK CO., LTD.	Manufacture and sale of ball screws, actuators	Dalian, China	70.00
THK MANUFACTURING OF CHINA (WUXI) CO., LTD.	Manufacture of LM Guide	Wuxi, China	100.00
THK MANUFACTURING OF CHINA (LIAONING) CO., LTD.	Manufacture of LM Guide	Dalian, China	100.00
THK RHYTHM GUANGZHOU CO., LTD.	Transportation equipment-related business	Guangzhou, China	100.00
THK RHYTHM CHANGZHOU CO., LTD.	Transportation equipment-related business	Changzhou, China	100.00
THK MANUFACTURING OF CHINA (CHANGZHOU) CO., LTD.	Manufacture of LM-related parts, unit products	Changzhou, China	100.00
THK TAIWAN CO., LTD.	Sale of LM Guide, ball screws	Taipei, Taiwan	100.00
THK LM SYSTEM Pte. Ltd.	Sale of LM Guide, ball screws	Kaki Bukit, Singapore	100.00
THK RHYTHM (THAILAND) CO., LTD.	Transportation equipment-related business	Rayong, Thailand	100.00
THK MANUFACTURING OF VIETNAM CO., LTD.	Manufacture of LM Guide, slide rails	Bac Ninh, Vietnam	100.00
THK RHYTHM MALAYSIA Sdn. Bhd.	Transportation equipment-related business	Penang, Malaysia	80.00
THK India Pvt. Ltd.	Manufacture and sale of LM Guide	Karnataka, India	100.00

	Affiliate	Main Operations	Location	Percentage Owned by the Company, Directly or Indirectly (%)
SAMICK THK CO., LTD.		Manufacture and sale of LM Guide	Daegu, South Korea	33.82

# Corporate Data

As of December 31, 2022

	Company Profile
Headquarters	2-12-10 Shibaura, Minato-ku, Tokyo 108-8506 Phone: +81-3-5730-3911
Established	April 1971
Number of Employees	13,502 (consolidated); 4,058 (parent company)
Month of Ordinary General Meeting of Shareholders	March
URL	www.thk.com
Independent Auditors	Grant Thornton Taiyo LLC

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Stock Information	
Common Stock: Authorized	465,877,700 shares
Issued	129,856,903 shares
Stock Exchange Listing	Tokyo Stock Exchange (Prime
	Market)
Stock Transfer Agent	Mitsubishi UFJ Trust and Banking
	Corporation
Number of Shareholders	21,154

