TOKYO OHKA KOGYO CO., LTD.

# Integrated Report 2023

Year Ended December 31, 2023



## The Future Deepens at 0.000000001 m

## Purpose

# Contributing to a sustainable future through chemistry

### Management Principles

Create a frank, open-minded business culture, continue the efforts to enhance technology, raise the level of the quality of products, and contribute to society

### Management Vision

"The e-Material Global Company™" contributing to a sustainable future through chemistry

### CSR Policy

- Increase sustainable corporate value as a whole group by improving employee engagement.
- Continue to provide high-value-added products that contribute to technological innovations in order to resolve social issues.
- Strive to grow together with society and remain as an attractive company that earns the trust of all stakeholders.

# Contents







## Long-Term Growth Strategy

002 Greetings/Statement of Authenticity
003 The Society We Strive to Achieve
004 Role of Photoresists in Semiconductor Manufacturing
006 Evolution of Semiconductors and TOK Photoresists
008 Evolution of Semiconductors and TOK High-Purity Chemicals
010 Customer-Oriented Strategy Accelerating Trade-Ons and Innovation
012 CAPITALS — Intellectual Capital and Human Capital
014 CAPITALS — Financial/Manufactured/Social and Relational/Natural Capital
016 IMPACT ENABLER — Creating a Social Impact
018 IMPACT ENABLER — Towards the Sustainable Development of Generative AI
020 IMPACT ENABLER — TOK Photoresists
022 CULTURE & BUSINESS MODEL
024 VALUE CREATION PROCESS
026 PORTFOLIO
028 OUTPUT & OUTCOME
030 STAKEHOLDER ENGAGEMENT
032 OUR MATERIAL ISSUES
034 Message from the President
040 Message from the Executive Officer of Accounting and Finance
044 Review of the Past Two Medium-Term Plans
046 TOK Medium-Term Plan 2024 and TOK Vision 2030
048 Background to TOK Vision 2030 Upward Revision and Targeted Business Portfolio

## Initiatives to Address Material Issues to Enhance Corporate Value

050 Material Issues / Key Initiatives, Risks and Objectives, and List of Objectives
054 Message from the Director of Marketing and Development
059 Message from the Director of New Businesses Development
060 Message from the Executive Officer of DX
061 Message from the Executive Officer of Human Capital
066 Material Issues Roundtable Discussion
Intellectual Capital/Human Capital Strategy for Contributing to Innovation and Pursuing Employee Happiness
072 Message from the Director of the Environment
076 TCFD-based Information Disclosure for Climate Change
078 Messages from Outside Directors
082 Directors and Executive Officers
084 Corporate Governance
100 Global Environmental Conservation Considering Future Generations
110 Supply Chain Sustainability

## Data Section

116 Trends of Key Ten-Year Data and Analysis
125 Photoresist Data Package
126 Consolidated Financial Statements
131 Stock Information
132 Global Network
134 Corporate Information/External Evaluation
135 Third-Party Verification Report

### Editorial Policy

#### Scope and time frame of this report

- Time frame: Fiscal year ended December 31, 2023 (January 1, 2023, to December 31, 2023) (Includes some content after January 2024)
- Organization: Tokyo Ohka Kogyo Co., Ltd., and its consolidated subsidiaries and equity-method affiliates **(See pages 132–133 "Global Network")** unless otherwise specified in the text
- Publication on the website: Information on the variety of initiatives related to financial and nonfinancial information, including information not presented in this integrated report, can be found on the company's website. https://www.tok.co.jp/eng

#### Third-party verification

Third-party verification by the Japan Chemical Industry Association covers all pages, except financial information.

#### Reference guidelines

- International Integrated Reporting Framework published by the IFRS Foundation
- Guidance for Integrated Corporate Disclosure and Company-Investor Dialogue for Collaborative Value Creation 2.0 published by the Ministry of Economy, Trade and Industry
- Environmental Reporting Guidelines 2018 published by the Ministry of the Environment
- ISO 26000: 2010 – Guidance on Social Responsibility released by the Japanese Standards Association
- GRI Sustainability Reporting Standards

Environment Social Governance
価値協創ガイダンス

**Forward-looking statements and estimates**

This integrated report contains forward-looking statements, forecasts, and social impact estimates that present the future prospects of Tokyo Ohka Kogyo Co., Ltd., (the Company) in terms of business planning, earnings, and management strategies. Such statements are based on management judgments and estimates and are derived from information available at the time the information was prepared. Readers are cautioned not to rely solely on this report because actual results, management strategies, and social impact may substantially differ from those discussed in this report due to changes in the business environment and other conditions.

# Greetings/Statement of Authenticity

Semiconductors bring many innovations to humanity, such as generative AI, smartphones, and autonomous driving, while contributing to the resolution of advanced social and environmental issues and making our lives more convenient, comfortable, safe, and secure. TOK is a manufacturer with the largest global market share of photoresists—materials essential for the manufacture and upgrading of semiconductors.

Tokyo Ohka Kogyo, which has been collaborating with customers in the fine chemical field that constantly demands *resolving advanced trade-offs** since its establishment 84 years ago, has achieved sustainable growth by practicing customer-oriented strategies and by providing inside and outside Japan the value created through the use of world-leading microprocessing and high purity processing technologies. Under the management vision, "The e-Material Global Company™ contributing to a sustainable future through chemistry," TOK strives to create value from the long-term viewpoint while aiming to contribute to 5G and IoT innovation by 2030 to become a 100-year company in 2040 and achieve carbon neutrality by 2050. Particularly in the near term and under the recently upwardly revised TOK Vision 2030, we are working to further enhance corporate value by strengthening the Group's *four earning capabilities*: technology (intellectual capital/manufactured capital), human capital, human connections (social and relational capital), and finance (financial capital).

In the *Integrated Report 2023*, we convey TOK's long-term growth strategy from the multiple perspectives of resolving advanced trade-offs and connections and interactions between capital resources, while particularly exploring the intellectual capital strategy and human capital strategy as the sources of innovation and social impact creation.



In authoring this report, TOK referred to the International Integrated Reporting Framework promoted by the IFRS Foundation and Guidance for Integrated Corporate Disclosure and Company-Investor Dialogue for Collaborative Value Creation 2.0 issued by the Ministry of Economy, Trade and Industry. The Company considered the feedback received in dialogues with shareholders, investors, and other stakeholders, as well as the opinions received regarding the *Integrated Report 2022*. I would like to assure readers that this report represents our best efforts to bring together a variety of information related to long-term value creation at TOK through the commitment of management executives and company-wide due processes in each division.

August 2024

**Noriaki Taneichi**

Representative Director,
President & Chief Executive Officer

* Conflicting technical and social needs
Achieving both is called a trade-on

# —The Society We Strive to Achieve—

## TOK pursues a sustainable society in the future filled with happiness, and this starts from the pursuit of happiness for individuals in the workplace.



The TOK Group practices its purpose—contribute to a sustainable future through chemistry—extracted from the management vision and invests in human capital under the concept of the pursuit of happiness for individuals in the workplace. The Group hopes that these measures will have a ripple effect that improves the happiness of external stakeholders and broadly disseminates throughout society.

Human Capital who are happy often demonstrate high performance. Customers who use our products with high added value produced by such human Capital will also achieve high performance, leading to an increased sense of happiness. When consumers can improve the quality of life by using excellent end products produced by TOK customers, happiness will be enhanced throughout society.

TOK will continue in its pursuit of a society where people are happy and that starts from the pursuit of happiness for individuals in the workplace.

# Role of Photoresists in Semiconductor Manufacturing

## Providing customers with inputs that contribute to social innovation

TOK photoresists provide customers with inputs that serve as the starting point in the customer's value creation process and that contribute to the generation of a positive social impact through innovation by substantially upgrading the quality of the customers' outputs in terms of semiconductor performance, quality, and yield. This section describes the functions, performance, and core value provided by TOK photoresists in the semiconductor manufacturing process.

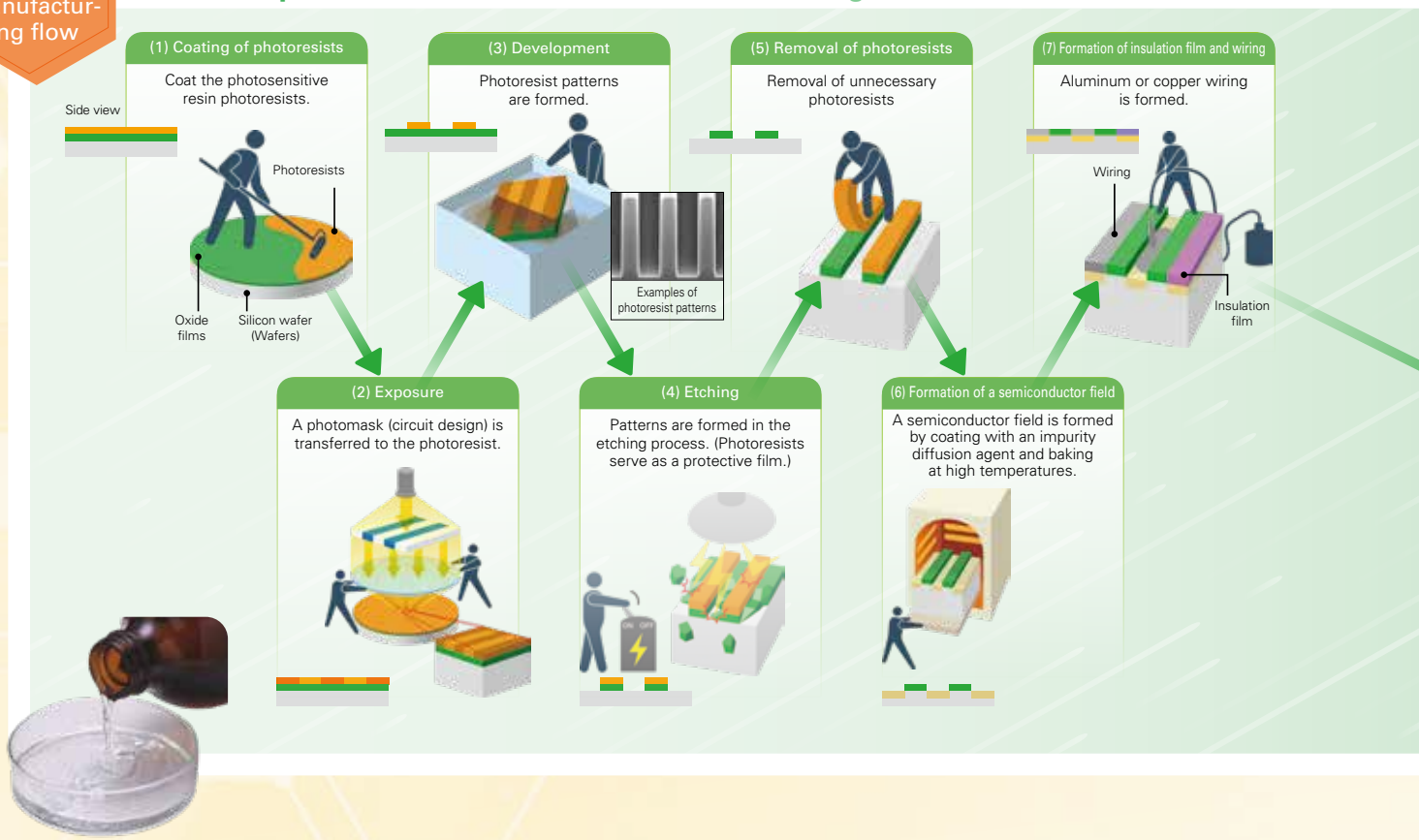
## TOK's Semiconductor Photoresist Business

Process of making integrated circuits on a silicon substrate and producing semiconductor chips.
The process uses the resistance to etching by the photoresists.

See our informational video concerning the contribution by TOK.

Semi-conductor manufactur-ing flow

### Front-end processes of semiconductor manufacturing






## Impact Enabler: TOK Photoresists



## Factors Adding Value to Semiconductor Photoresists

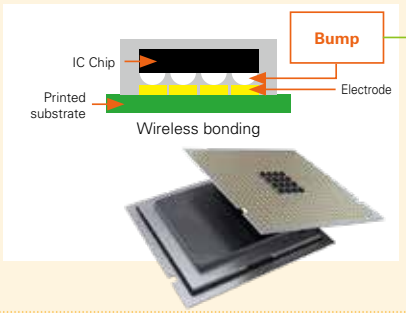
| | | |
|---|---|---|
| Sensitivity | Resolution | Roughness* * Fluctuations in line width |
| Etching resistance | Substrate adhesiveness | Processing applicability |
| Purity | Substance safety | Cost |

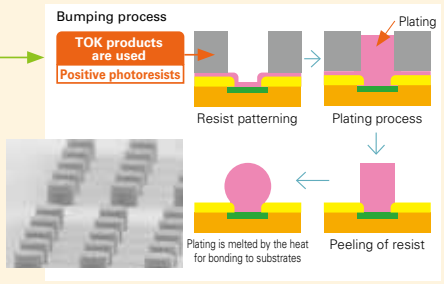
# Our Strengths

Providing photoresists as an impact enabler in both the front-end process and the back-end process of semiconductor manufacturing

**Wireless bonding contributes to downsizing, weight reduction, and the higher performance of semiconductors**

With this method, projected connection terminals called *bumps* are laid out at the bottom of the IC chip without using fine metal wire and are energized by coming into direct contact with the printed circuit board. By saving space for wire connections, the IC chip is directly connected to the printed circuit board, which reduces the connection distance and contributes to downsizing, weight reduction, and the higher performance of semiconductor packages.




**Growing in innovative fields, such as generative AI**
**(→ See pages 18–19)**

## Back-end processes of semiconductor manufacturing

In this process, individual semiconductor chips are cut out to be sealed into different packages. The process takes advantage of the thick file forming capacity of photoresists.

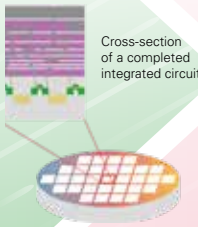
### (8) Formation of integrated circuits

ICs are formed by repeating processes (1) through (7).



### (9) Completion of an integrated circuit

Multiple ICs are created on the wafer surface using microprocessor technology.




### (10) Dicing of wafers

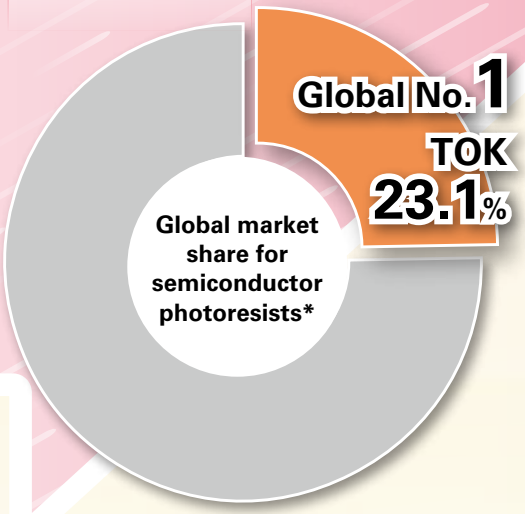
Wafers are diced into chip sizes.



### Semiconductor chips completed

Each diced wafer becomes an IC chip.

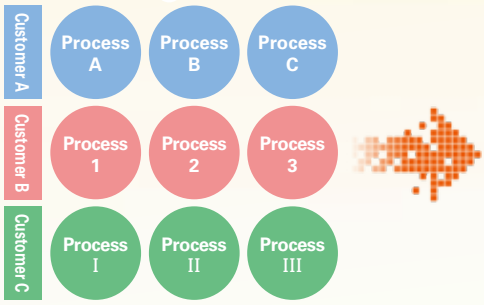





* Based on the projected shipment volume of EUV, ArF, KrF, g-Line, and i-Line photoresists in 2023 (calculated on the basis of Fuji Chimera Research Institute, *Current Status and Future Outlook of Cutting-edge/Noticeable Semiconductor-related Markets 2024)*

## Core value of TOK

TOK has a **capability** to swiftly provide finely tuned tailor-made photoresists for the different needs and requirements of each customer or process




## Innovation and social impact

**led by semiconductors and final products/ services**

# Evolution of Semiconductors and TOK Photoresists

## Evolving semiconductors with world-leading microprocessing technology (intellectual capital)

Over about the past 50 years, semiconductors have evolved mainly through the miniaturization of line widths in the front-end process (→ **see pages 4–5**).
As the line width of semiconductors becomes finer, they become faster, more power-efficient, and smaller, which results in the creation of a greater social impact.
TOK has been involved in reducing line widths by approximately 1/3333 over the past 53 years of semiconductor miniaturization while contributing to reduced power consumption per operation and improved operating speed. By doing so, we continue to meet the social expectations of promoting decarbonization and improving productivity through AI. In the future, TOK will apply this core competence to back-end processes as well (→ **see pages 4–5**).

### ● Semiconductor miniaturization history [Front-end processes]*1

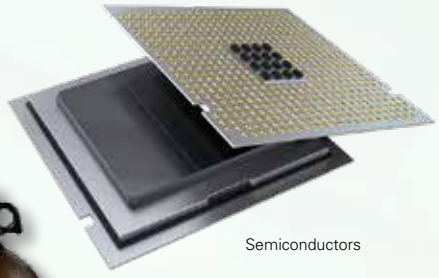
| 1970s | 1980s | 1990s | 2000s |
|---|---|---|---|
| Line width of semiconductors | Line width of semiconductors | Line width of semiconductors | Process nodes of semiconductors |
| **10,000 nm–1,500 nm** | **1,500 nm–600 nm** | **600 nm–130 nm** | **130 nm–32 nm** |

### ● Social expectations met and evolution of TOK photoresists

| 1970s | 1980s | 1990s | 2000s |
|---|---|---|---|
| Social expectations | Social expectations | Social expectations | Social expectations |
| **More efficient economic activities** | **More advanced information processing** | **More advanced communication** | **Social networking** |
|  |  |  |  |
| Examples of final products<br>Calculators*2 | Examples of final products<br>PC | Examples of final products<br>Feature phones | Examples of final products<br>Smartphones |
|  |  |  |  |
| Outputs<br>First semiconductor positive photoresist developed in Japan | Outputs<br>g/i-Line photoresists | Outputs<br>KrF excimer laser photoresists | Outputs<br>ArF excimer laser photoresists |

**As the light source for exposure has evolved from high-pressure mercury lamps (g/i-line) to laser light (KrF, ArF) and then to extreme ultraviolet (EUV) with the progress of miniaturization, TOK has been developing corresponding photoresists from scratch while achieving trade-ons between miniaturization progress and yield.**

*1 Includes estimates by TOK for the decades shown　　*2 The photos of examples of final products on this page are for illustration purposes only.



Semiconductors

**Front-end process**



TOK Photoresists

## CORE COMPETENCE 1

### World-leading microprocessing technology

**Value creation area = 1 nanometer*3**

**0.000000001m**

*3 Approx. 1/100,000 the thickness of the human hair

*2010s–*
Semiconductor process nodes
**32 nm–5 nm**

*2023–*
Semiconductor process nodes
**3 nm**

### Outcomes over the past 53 years

**Line width**

**Reduced to about 1/3333**

**Energy-saving**

**Higher speed**

*2010s*
Social expectations
**Promotion of decarbonization**



Examples of final products
General electronic products



Outputs
Full portfolio

*2023–*
Social expectations
**Productivity improvement through AI**

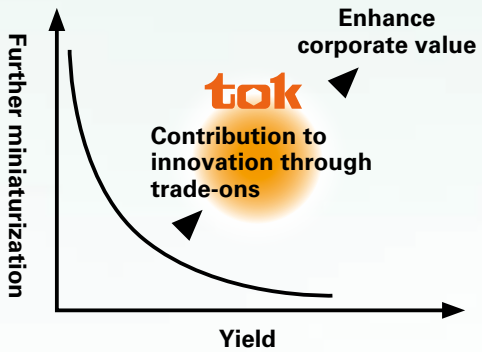



Examples of final services
Generative AI



Outputs
EUV photoresists

### Enhancing corporate value through accumulated trade-ons



# Evolution of Semiconductors and High-Purity Chemicals from TOK

## Contributing to customer productivity, increased profitability, and environmental load reduction with world-leading high purity technology (manufactured capital)

Our *world-leading high purity technology (manufactured capital)*, rooted in our founding business, contributes to improving production quality not only in front-end processes but also in all processes, including the back end.
TOK released fine chemical products leveraging this processing technology and satisfied many social expectations in the early post-war era in Japan. Through subsequent global expansion, these chemical products have been adopted by many customers, including world-leading semiconductor manufacturers. The synergy effect through interaction with world-leading microprocessing technology (intellectual capital) is particularly significant and greatly contributes to innovation in advanced fields by improving customer yields, reducing costs, and lowering the environmental impact.

**Original management principles presented by Founder Shigemasa Mukai**

**— "Create a frank and open-minded business culture, continue efforts to enhance our technology, raise the quality levels of our products, and contribute to society" —**

### ● Trends in level of high-purity processing (impurities)*1,*2

*1970s*
Level of impurities
**≤ 1 ppm**

### ● Social expectations met and evolution of high-purity chemicals from TOK

*Foundation*
Source
**Create a frank and open-minded business culture**



Shigemasa Mukai, TOK founder

*1930–40s*
Social expectations
**Worker safety**



Examples of final products
Batteries used in hard-hat lights for coal miners



Outputs
The first high-purity potassium hydroxide produced in Japan



*1950s*
Social expectations
**Cultural development**



Examples of final products
Black-and-white TVs



Outputs
Ohka Seal, the first high-purity potassium silicate produced in Japan

*1970s*[*2]
Social expectations
**Higher productivity**



Value provided
Higher yield in semiconductor production



Outputs
High-purity chemicals and semiconductor photoresists

**High-purity technology developed exponentially after the release of positive-type photoresist for semiconductors in 1968. The current 1 ppt or lower level means that "there is only a drop of impurity in a 50 m pool or not at all." We continue to make steady investments in manufactured capital to maintain the trade-on between this purity and yield (mass production).**

*1 1 ppm = 1/1,000,000; 1 ppb = 1/1,000,000,000; 1 ppt = 1/1,000,000,000,000 *2 Includes estimates by TOK for the decades shown



High-purity chemicals and photoresists from TOK



Semiconductors

All processes

## CORE COMPETENCE 2

### World-leading high purity processing technology

**Level of impurities in cutting-edge products**

**1/1,000,000,000,000 or less**

*2000s*
Level of impurities
**≤ 100 ppt**

*2023–*
Level of impurities
**≤ 1 ppt**

### Outcomes over about the past 50 years

**Level of impurities**

**Reduced to 1/1,000,000**

*2000s*[*2]
Social expectations

**Resource saving and environmental contribution**



Value provided
Reduced material loss in semiconductor/LCD production



Outputs
High-purity chemicals and semiconductor photoresists

*2020s*
Customer expectations

**Higher purity processing**

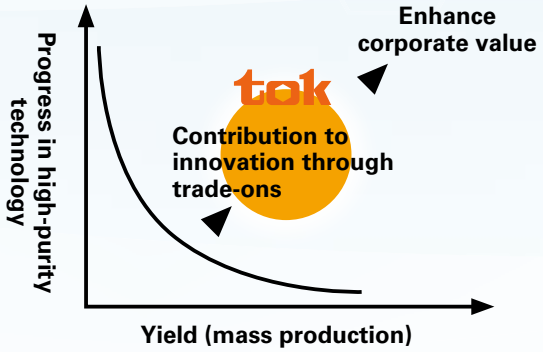


Value provided
Pursuing ultimate defect reduction with state-of-the-art equipment



Outputs
High-purity chemicals and semiconductor photoresists

### Enhancing corporate value through accumulated trade-ons



# Customer-Oriented Strategy Accelerating Trade-Ons and Innovation

## A *tough assignment* that nurtures human capital and expands human connections (social and relational capital)

Customer-oriented strategies are TOK's strengths, which continuously advance the added value accumulated through trade-ons, and TOK delivers it to all parts of the world.
TOK opened its first overseas site in 1987 and accelerated overseas expansion as the offshoring of the semiconductor industry proceeded. The Company established customer-oriented sites in the United States, South Korea, and Taiwan, where human capital from the trifecta of development, manufacturing, and marketing functions work in collaboration.
The *tough assignment* of meeting the expectations of world-leading semiconductor manufacturers on-site on a daily basis hones the human capital of TOK, building significant added value through collaboration, strong relationships of trust, and new human connections (social and relational capital). Under this virtuous cycle, TOK accelerates trade-ons and innovation, leading to the creation of a social impact.

### ● Continuously growing overseas sales

*1987*

### ● Continuously expanding social and relational capital to all parts of the world

*1987*
Overseas expansion
**The United States**



First overseas site
Ohka America, Inc.
(present Tokyo Ohka Kogyo America, Inc.)

*1998*
Overseas expansion
**Taiwan**



First overseas site in Asia
TOK Taiwan Co., Ltd.
(Miaoli Plant*)
* Transferred in 2023

*2004*
Overseas expansion
**China**



First manufacturing site in China
Chang Chun TOK (Changshu) Co., Ltd.*
(Changshu Plant)
* Transferred in 2023

*2012*
Customer-oriented
**South Korea**



The trifecta of development, manufacturing, and marketing
TOK Advanced Materials Co., Ltd.

### ● Long-run R&D through global synergy between capital resources

**Through the interaction of capital resources between overseas customer-oriented sites and domestic sites, we globally deploy cutting-edge and long-term R&D.**



**Long-term research and development (approx. 10 years)**

*2003*
**Launch and growth**

**Photoresists for image sensors**
**MEMS materials**
**EUV photoresists**
**Immersion ArF excimer laser photoresists**




Texas Instruments Inc.
Supplier Excellence Award (2022)



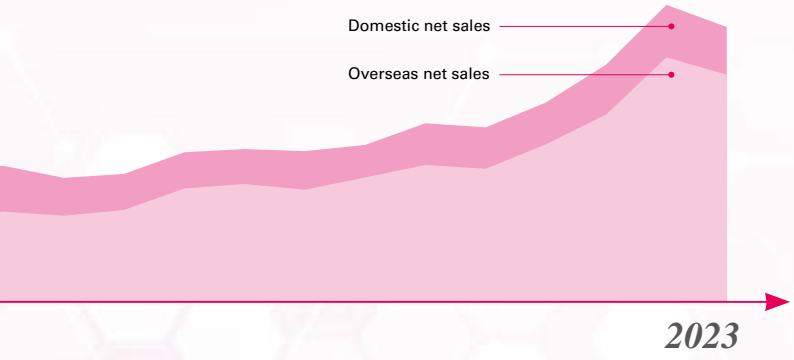

On Semiconductor Corporation
Perfect Quality Award (2022)



TOK Advanced Materials Co., Ltd.
(South Korea)
Received the 20 Million Dollar
Export Tower award (2022)

# CORE COMPETENCE 3

# Customer-oriented strategies




**Overseas sales growth rate over the past 10 years**

**2.5 times**

**Overseas sales ratio (2023)**

**82.6%**

*2014*
Customer-oriented
**Taiwan**



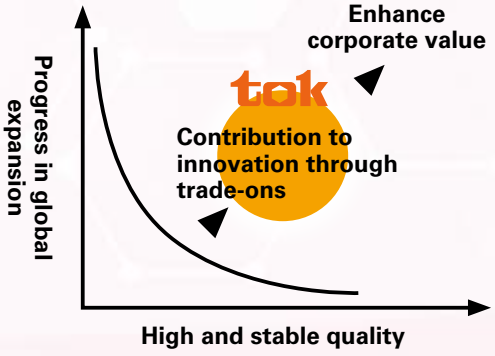
Upgrading the customer-oriented strategies
TOK Taiwan Co., Ltd.
(Tongluo Plant)

*2016*
Customer-oriented
**Taiwan**



The trifecta of development, manufacturing, and marketing
TOK Taiwan Co., Ltd.
(Tongluo No. 2 Plant)

## Enhancing corporate value through accumulated trade-ons




**Long-term research and development (approx. 10 years)**



*2019*
**Growth**

**Long-term research and development (approx. 20 years)**



*2019–*
**Launch, growth, and market share expansion**

**Long-term research and development (approx. 20 years)**



*2023–*
**Regrowth and market share expansion**

# CAPITALS

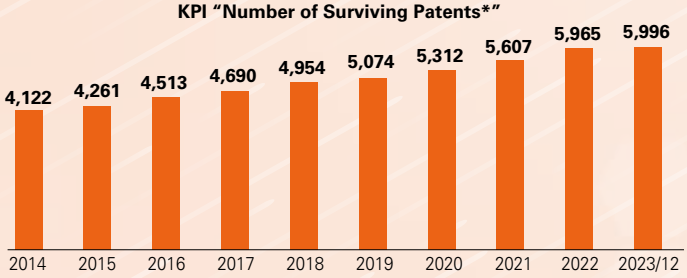
## Intellectual capital to win fierce technology development competition

As a fine chemical manufacturer specializing in niche, high-value-added fields, we built powerful intellectual capital to continue winning in the cutting-edge semiconductor fields by deploying our three core competencies of world-leading microprocessing technology, world-leading high purity processing technology, and customer-oriented strategies for over 50 years.

### Intellectual capital



**KPI "Number of Surviving Patents*"**




* Number of patents pending or in force at the end of each year

- Sustaining high levels of R&D investment
- Corporate culture supporting long-term development

**■ High ratio of R&D costs to net sales**

Maintaining ratio of R&D costs to net sales around 8%

- Strengthening R&D functions in Japan, the United States, South Korea, and Taiwan
- Continuing development for further advances in microprocessing and high purity processing technologies centered on research into functional polymer materials and the development of applied technologies
- Focusing on the development of new high-functional materials and production technologies; Expanding and accelerating open innovation

**■ Marketing capabilities in R&D**

Integration of the development and the marketing

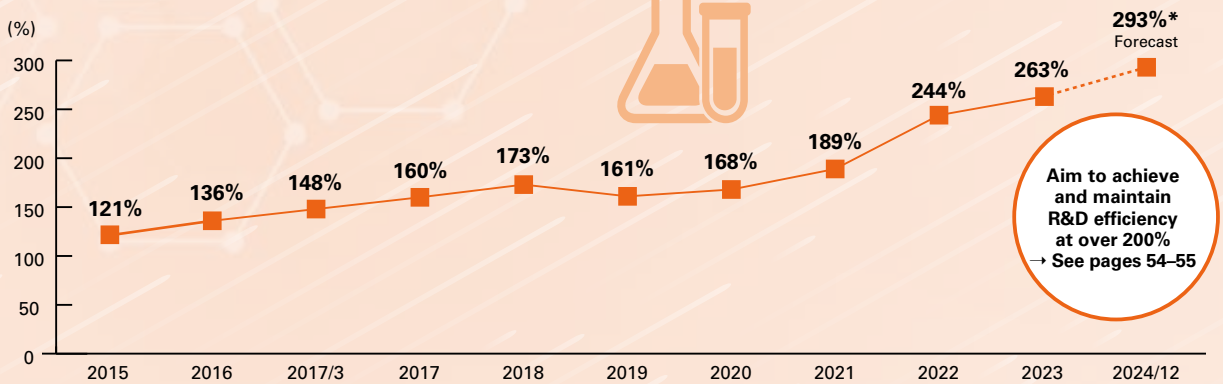
- R&D efficiency* has increased by 90 points to 263% over the past five years as a result of promoting the integration of development and marketing under an unfading startup spirit and blue ocean strategy combined with the acceleration of stringently customer-oriented development. Excess cash beyond the standard value (200%) is used for long-term R&D that looks more than ten years ahead and focuses on complementing and building "lacking intellectual capital," such as deepening new seeds

**■ Long-term development**

A willingness to accept challenges based on the management principle of creating a frank, open-minded business culture

- Fostering a frank, open-minded business culture that supports the challenges of the persistent pursuit and deepening of knowledge that has continued for more than 10 years even though R&D in cutting-edge fields becomes increasingly more difficult

**Changes and target of R&D efficiency* as KPI**




* R&D efficiency = Operating income over the past five years / R&D costs over the preceding five years.
For the quarter ending December 2024, calculated on the basis of the figures announced on February 13, 2024

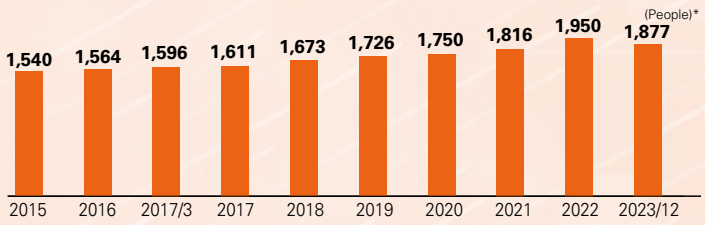
# Continuously pursuing employee happiness and DE&I as part of the TOK growth strategy

Under the Policy on Utilizing Human Capital that clearly states that human capital are the source of value creation, we introduced employee engagement indicators as KPIs in the executive compensation system from 2022 and established the Human Capital Division in March 2024. As part of the growth strategy towards TOK Vision 2030, we continue to pursue employee happiness and DE&I.

## Human capital



**KPI Number of employees (consolidated)**




* The decrease in 2023/12 is due to the transfer of the equipment business and the restructuring of overseas consolidated subsidiaries. Also, the consolidated number of employees does not include those seconded from the TOK Group to outside the TOK Group (67) and contract employees (115).

- Personnel measures focused on happiness
- Pursuit of DE&I

**■ Policy on Leveraging Human Capital "Never forget that all business begins with people"**

Increasing investments in human capital as a growth strategy

- Average annual salary per person increased by 1.4 million yen over the past 10 years*1
- Ratio of paid leave taken stood at 87.1%, which was significantly higher than the national average of 62.1%.*2

*1 Unconsolidated basis

*2 Source: Ministry of Health, Labour and Welfare's Summary 2023 of General Survey of Working Conditions for fiscal years 2022 or 2021

- Accelerating the supplementation of "lacking human capital" towards achieving the upwardly revised TOK Vision 2030

**■ Endeavor to improve employee engagement as part of growth strategy (→ see pages 62–71)**

Pursuing measures that align with individual values of personnel and their happiness

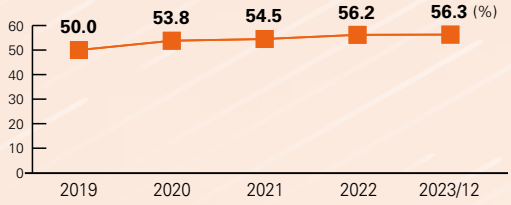
- KPIs for performance-linked share-based remuneration for officers consist of ROE and an employee engagement indicator
- New personnel system based on the mission grade system (introduced from 2022)
- Different recognition systems, such as the Executive Fellow system, SP position system (front-and back-office), Performance incentive system, and TOK Shinka Award

**■ Further pursuing DE&I as a source of innovation**

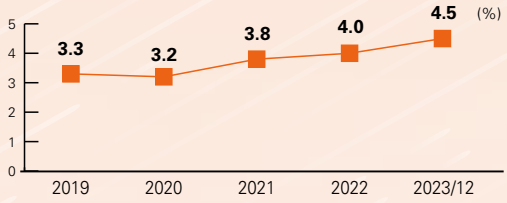
Merit-based hiring and promotions regardless of nationality or gender

- The consolidated ratio of international employees has increased, and locally hired personnel in the marketing, development, and manufacturing divisions with a deep understanding of TOK management principles are making a significant contribution to cutting-edge value creation. The ratio of local hires in overseas management positions is also stable at a high level of about 60%, and in 2023 we introduced the Tokyo Ohka Global Employee Shareholding Association System
- The number and ratio of female employees increased. Further promote DE&I toward the material issue: Contribution to innovation and the creation of social value.

**KPI Ratio of local hires in overseas management positions**




**KPI Ratio of women in senior and middle management**



# CAPITALS

## Continuing to evolve value creation power with the linkage and synergy among capital resources at the core

The TOK Group will continue to accumulate new trade-ons in the innovative field of semiconductors, while sustaining long-term value creation in decarbonization and other fields with substantial environmental contributions by strategically enhancing technology (manufactured capital and intellectual capital), human capital, and human connections (social and relational capital) based on robust financial capital and cash generating abilities. By doing so, we will further expand the interaction between capital resources, thereby creating greater economic and social value and contributing to further innovation.

## Financial capital



- Financial capital policy for the super-long term
- Dividend policy based on net assets

**■ Balance sheet management**

Pursue an optimal balance between investment, cash reserves, and shareholder returns

- Execute the niche top strategy in innovative fields
- Aggressively take risks as an R&D-driven company

**■ Strategic policy on cash reserves**

Establish a policy on cash reserves of investment reserves and risk reserves

- Develop technologies in anticipation of a super-long time frame
  Continue to take on challenges over a super-long time frame
  Preparedness for major natural disasters
- Represent top-class financial soundness in the chemicals sector (equity ratio 72.9%, D/E ratio 0.06*)

* Both as of December 31, 2023

**■ Enhancement of dividends**

A dividend policy targeting a DOE of 4.0%

- Steady and continuous shareholder returns

**■ Pursuit of higher asset efficiency**

ROE: maintain at 8.0% or more (FY 2024/12 target)
13% (FY 2030/12)

**■ To maximize cash generating capability**

Promote investment and business strategies using EBITDA, ROIC, and IRR as monitoring indicators

## Manufactured capital



- World-leading microprocessing technology
- World-leading high-purity processing technology

**■ Microprocessing technology**

Development and manufacture of materials to miniaturize semiconductor circuit line widths, materials used to make higher-density semiconductor packages, and materials for stacking semiconductor devices in 3D

- Continue to satisfy the sophisticated customer needs from the manufacturers of semiconductor and electronic components

**■ High-purity processing technology**

Supply clean solutions, thinners, and developing solutions with the highest purity in the world by absolutely minimizing impurities in the product

- Realize shared value by improving the yield, increasing productivity, saving resources, and reducing the costs of the customer's mass production lines for cutting-edge devices and disseminating the social value (impact) of innovative semiconductors
- Make TOK strengths more effective in highly challenging domains, such as controlling performance down to the molecular level

**■ Niche top products**

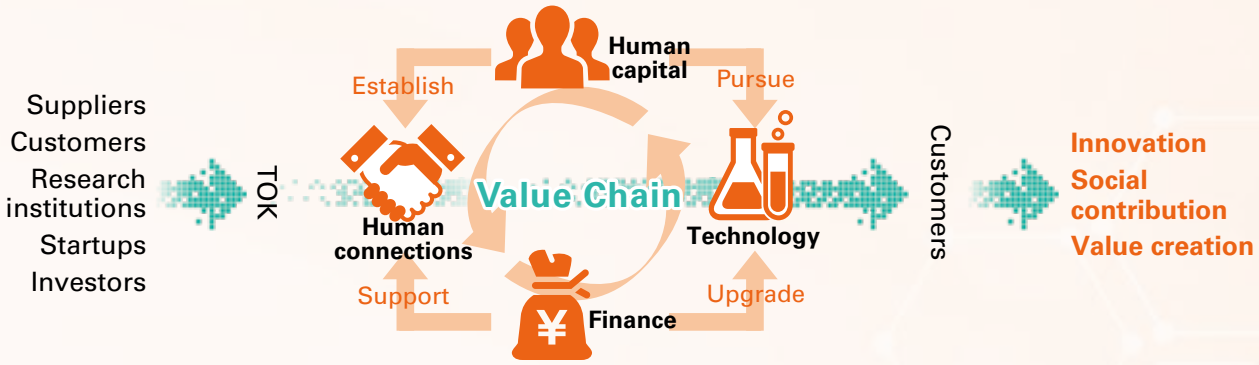
DNA of the founder, Shigemasa Mukai: "Create materials that are supported by advanced technologies and that cannot easily be imitated by other companies"

- Focus on niche business fields shaped by radical and rapid technological changes
- Promote a business model that continues to develop and bring to market new, high-end, high-value-added products

**■ Expansion and renewal of manufacturing facilities**

Strengthen and update "lacking manufactured capital" towards achieving the upwardly revised TOK Vision 2030

## TOK will further expand the interaction between capital resources, thereby creating greater economic and social value and contributing to further innovation




## Social and relational capital



- Staying abreast of customers who are leading global innovative technology
- Supplier engagement

**■ Establish development and manufacturing sites in the United States, South Korea, and Taiwan, where many customers are located**

Introduce prototype production lines equal to the ones of customers who are leading global cutting-edge technology

- Quickly commercialize R&D achievements and build a robust relationship of trust in the fast-changing semiconductor and electronics industries
- Flexible response to the risk distribution and global multi-site operations of customers to turn geopolitical risks into opportunities

**■ Establish a robust customer base in all areas as a long-established supplier of photoresists**

Provide customers in all areas with a full portfolio, including legacy products

- Ensure long-term transactions for more than 20 to 30 years, especially in businesses related to decarbonization and power semiconductors

**■ Build innovation ecosystems with diverse stakeholders**

Collaborate with stakeholders and customers to drive innovation in innovative semiconductor fields where difficulty in development has been increasing each year

- Discover and support venture companies with technological advantages by engaging in joint research with academics and by participating in a variety of consortiums

**■ Create cutting-edge value with suppliers**

Strengthen and improve supplier engagement that leads to human rights due diligence

- Create cutting-edge semiconductor materials from the formulation of raw materials together with suppliers
- Closely cooperate with suppliers in measures for global environmental conservation and human rights

## Natural capital



- Contribute to decarbonization through business
- Minimize negative outcomes

**■ Focus on expanding the contribution to reductions through products**

Develop and provide products that contribute to decarbonization

- Reduce power consumption through the miniaturization of semiconductors by supplying cutting-edge photoresists
- Maintaining the top share* of the world market for g-/i-Line photoresists is essential in the manufacture of power semiconductors used to conserve and control energy in renewable energy systems, electric vehicles, and hybrid cars. Sales of g-/i-Line photoresists have reliably accounted for almost 10% of consolidated net sales.
- Establish a competitive advantage in the development of materials for next-generation SiC/GaN power semiconductors as well

* Based on estimated shipment volumes for 2023 (Source: Fuji Chimera Research Institute, *Current Status and Future Outlook of Cutting-edge/Noticeable Semiconductor-related Markets 2024*)

**■ Strive to minimize absolute $CO_2$ emissions**

Newly develop an interim target to align the 1.5°C target with the growth strategy by 2030

- Aim for emissions of 33,000 t-$CO_2$e or less (Scope 1, 2, consolidated)

**■ Responsible care activities***

Appropriate management as a manufacturer handling chemical substances and that uses large volumes of water in the production processes, combined with efforts for conserving biodiversity

- Focus efforts on minimizing environmental risks in the production process and throughout the supply chain
- Also focus on biodiversity conservation through participation in nature conservation activities
- Promote responsible care activities as a part of the TOK Group Management System (GMS) that reinforces the group management structure globally

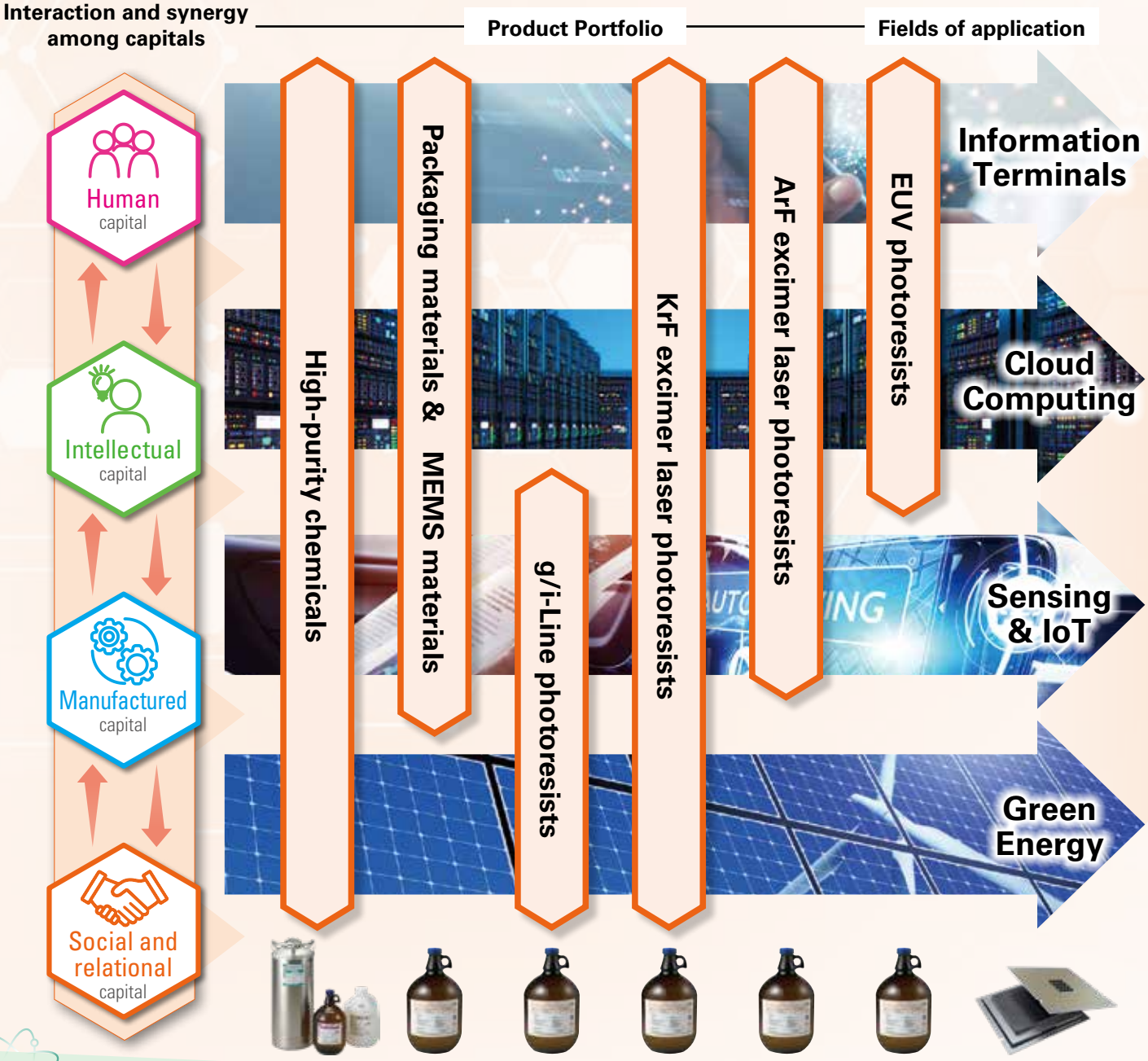
* Activities in which companies handle chemical substances voluntarily implement environmental, safety, and health measures in every process from chemical substance development through manufacturing, logistics, use, and final consumption to disposal and recycling, and announce the results of these activities while communicating with the public. (Defined by the Japan Chemical Industry Association)

# IMPACT ENABLER

## Creation of Social Impact

### Accelerate investments in human capital and intellectual capital to contribute to the creation of further social impacts

In reference to the history of TOK, the Company is confident that the accumulation of the different trade-ons and initiatives to enhance the happiness of stakeholders and improve the interaction and synergy of internal and external management resources with human capital-oriented management at the core will lead to the generation of positive social impacts. Advances in semiconductor technology underlies the positive social impact generated by the communications revolution through the ongoing use of generative AI, dissemination of 5G, and the next-generation 6G specifications. The Company believes that semiconductors will continue to grow to an unprecedented market scale in the medium- to long-term and will substantially contribute to the achievement of carbon neutrality as a social requirement of humankind.








Therefore, the TOK Group selected information terminals, cloud computing, sensing and IoT, and green energy as the four fields in which the Group will grow together with customers from the semiconductor industry in 2023; consequently, TOK decided to heavily invest in human capital, intellectual capital, and all the other management resources in these fields.
The product portfolio of TOK, which features semiconductor photoresists and high-purity chemicals, will continue to create value in each field. TOK will also invest in additional human capital and intellectual capital to expand products that promote innovation, thereby contributing to the generation of positive social impacts toward a sustainable future.

| Social issues (examples) | Solutions and value chain | Expected social impact by 2030 |
|---|---|---|
| Widening economic disparity due to digital divide | [TOK]<br>Development and provision of thick-film KrF excimer laser photoresists<br>▼<br>[Semiconductor manufacturers and device manufacturers]<br>Cost reduction per byte with increased layers of 3D-NAND<br>Manufacturing and sales of low-cost smartphones | Provision of information and educational infrastructure to **3.5** million people in developing countries*1 |
| Long working hours due to global labor shortage | [TOK]<br>Development and provision of EUV, ArF, KrF, g-Line and i-Line photoresists<br>▼<br>[Semiconductor manufacturers and device manufacturers]<br>Increase in speed per semiconductor operation<br>Increase in the processing speed of a variety of terminals, data servers, and other devices | Reduction of global working hours by approximately **1.3**%*2 |
| Economic loss due to increased deaths from traffic accidents | [TOK]<br>Development and provision of photoresists for image sensors<br>▼<br>[Semiconductor manufacturers and device manufacturers]<br>Advancement and mass production of automotive image sensors<br>Increased production of ADAS vehicles | Reduction of annual deaths from traffic accidents by about **25,000***3 (approximately 2% of the total) |
| Improving efficiency of renewable energy systems | [TOK]<br>Development and provision of photoresists for next-generation power semiconductors<br>▼<br>[Semiconductor manufacturers and device manufacturers]<br>Advancement and mass production of next-generation power semiconductors<br>Improved efficiency of EVs and wind/hydropower generation systems | Reduction of global power consumption by approximately **0.4**%*4 |

*1 Estimated from the number of non-smartphone owners and the effect of device price reduction. The population with 30 US dollars as the down payment for installment payments exceeding 5% of annual income is defined as the population who cannot purchase smartphones.
*2 Calculated for 188 countries where employment data for 2022–2023 is available from the World Bank and OECD. Assuming that total factor productivity improves with continued semiconductor miniaturization, the labor hour reduction rate is calculated on the basis of the spread of different devices and electronic equipment and improvement in user productivity.
*3 Estimated by using deaths from traffic accidents and the ratio of ADAS vehicles. The estimation is based on fatal accidents in 2019 and excludes anticipated increases through 2030 in emerging countries with many fatal traffic accidents.
*4 Estimated using power consumption in wind and solar power generation, EVs, and data centers, and the dissemination of next-generation power semiconductors with SiC and GaN as key factors. Train cars and commercial vehicles are excluded.

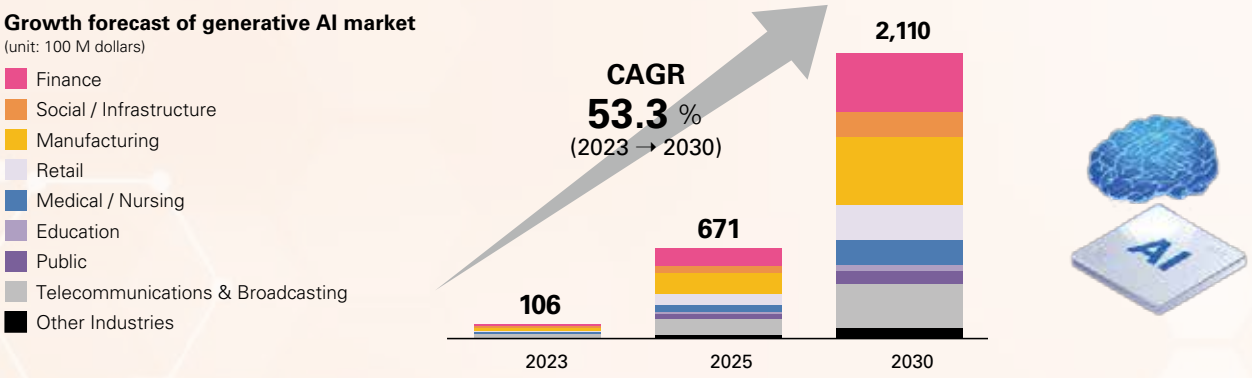
# IMPACT ENABLER

# Sustainable Development of Generative AI

## The generative AI market is growing while creating significant social impacts

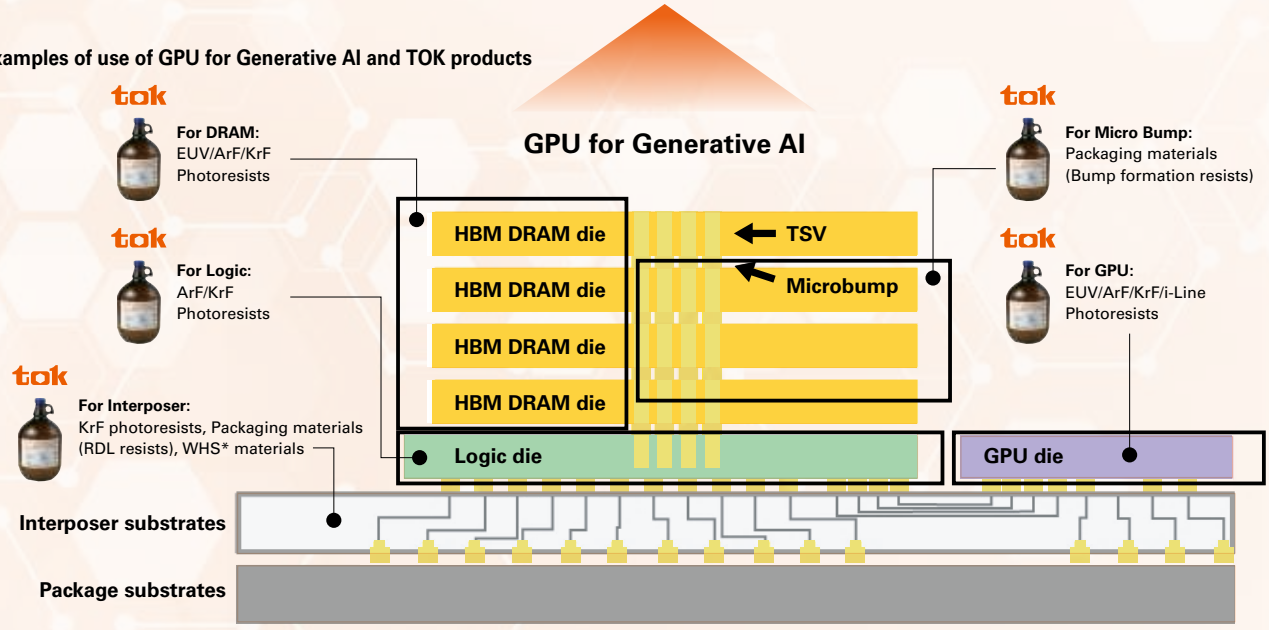
Although the global semiconductor market experienced negative growth for the first time in four years in 2023, the market is returning to a growth trend in 2024 driven by generative AI as the new driver. While still in the early stages, generative AI is already bringing many benefits to humanity **(→ see page 36)** and is expected to have a significant social impact on a variety of fields in the future.

**Growth forecast of generative AI market**
(unit: 100 M dollars)




Source: Japan Electronics and Information Technology Industries Association, *World Production Outlook for the Electronic and Information Technology Industries* (December 2023)

**Examples of use of GPU for Generative AI and TOK products**




**Front-end process**
**(for Logic, DRAM)**

tok

**Our products:**
EUV/ArF/KrF
Photoresists

**Back-end process**
**(for HBM, 2.5D to 3D structures)**

tok

**Our products:**
Packaging materials
(Bump resists, RDL resists),
WHS* materials

* Wafer Handling System (manufacturing equipment responsible for 3D semiconductor structures)

# Deploy a wide product portfolio for generative AI semiconductors

Generative AI uses deep learning and neural networks as the core technologies for self-learning in pursuit of answers. The larger the data input, the more complex the determination that is required. Therefore, the GPU is used for large-volume high-speed parallel processing.

TOK is currently steadily expanding its revenue by providing high value-added products for each part of the GPU as shown in the figure on the left.

For materials for high bandwidth memory (HBM), in particular, the cutting-edge memory devices that serve as the heart of the GPU for large-scale, high-speed computation, TOK has had a high market share since the introduction of the first generation in 2015. For the current mainstream second to third generations, TOK is expanding the supply of EUV/ArF/KrF photoresists for DRAM in addition to photoresists for packaging.

Going forward, TOK will continue to maximize its cash generation capability by deploying a wide product portfolio for semiconductors for generative AI.

# Productivity improvement effects expected from generative AI

Potential value of functions in the industry (High) ■ → ■ → ■ (Low)

| | **Total potential value by industry** Billion dollars (percentage of industry-wide sales) | **Potential value** Ratio to operating margin*1 | **Product R&D, software engineering** | **Customer service** | **Marketing & sales** | **Other functions** |
|---|---|---|---|---|---|---|
| Banking | 200–340 (3–5%) | 9–15 | ■ **Legacy code conversion** Optimize the legacy framework migration with natural language translation capabilities | ■ **Emergency interactive voice response (IVR) for customers** Partially automate customer emergencies (such as credit card loss) with generative AI-powered IVR to speed up responses and improve resolution rates | ■ **Customer-specific offers in retail banking** Send personalized marketing and sales push notifications (e.g., personalized nudges) based on profiles and history, and generate A/B test options | ■ **Documentation of risk models** Create model documents and check for missing documents and updates on the relevant regulations |
| Consumer goods & retail*2 | 400–660 (1–2%) | 27–44 | ■ **Consumer research** Accelerate consumer research by testing scenarios, enhance customer targeting by creating synthesized customers, and use them for testing | ■ **Augmented reality customer support** Quickly notify employees of the product status and consumer preferences in real time | ■ **Assistance in copywriting for marketing content creation** Speed up copywriting for marketing content and advertising copy | ■ **Procurement Enhance supplier processes** Draft playbooks for supplier negotiations |
| Pharmaceuticals & medical devices | 60–110 (3–5%) | 15–25 | ■ **Drug discovery and research exchange** Speed up the selection of optimal proteins and molecules as candidates for new drug formulations | ■ **Creation of customer documents** Create medication guidance and risk notifications for drug resale | ■ **Creation of content for sales representatives** Create scripts for dialogues with doctors | ■ **Creation of contracts** Draft legal documents that incorporate specific regulatory requirements |

Generative AI, which is beginning to be used in all industrial fields, is predicted to potentially bring about productivity improvement effects equivalent to $2.6 to $4.4 trillion annually across industries (according to McKinsey & Company, same below).

Specifically, in terms of productivity improvement effects in business settings, AI is expected to create value equivalent to 38% (about $404 billion) of global costs in customer service, 10% (about $463 billion) in marketing, 4% (about $486 billion) in sales, 31% (about $485 billion) in software engineering (corporate IT), 32% (about $414 billion) in software engineering (product development), and 12% (about $328 billion) in product R&D.

By industry, particularly large productivity improvement effects resulting in value creation are expected in the consumer goods and retail, banking, and pharmaceutical and medical device industries (see left table).

*1 Operating margin based on average profit margins for some industries from 2020 to 2022
*2 Including automobile sales
Source: McKinsey & Company, *The Economic Potential of Generative AI* (June 2023)

# Towards sustainable development of generative AI

On the other hand, these series of benefits and impacts from generative AI are premised on the expansion and operation of data centers with numerous data servers equipped with large numbers of GPUs, which has become an urgent social and environmental issue due to power shortages and the need to restructure power supply systems. In response, the semiconductor industry, including TOK, is working to minimize power consumption per operation by pursuing semiconductor miniaturization in the front-end process and stacking in the back-end process to reduce the power consumption of semiconductor GPUs and HBM.

**Social impacts created by Tokyo Ohka Kogyo and the semiconductor industry through EUV lithography**

| Social issues (examples) | Solutions and value chain | Expected social impact by 2030 |
|---|---|---|
| **Increased power consumption due to the rapid expansion of data centers** | **[TOK]**<br>**Development and provision of EUV photoresists**<br>▼<br>**[Semiconductor manufacturers and device manufacturers]**<br>**Reduction of power consumption per computational session by logic semiconductors**<br>**Reduction of power consumption at data servers** | **Reduction of global power consumption by approximately 0.2%*** |

* Estimated power consumption by data center servers and the sustained effects of Moore's law as key factors. The use of high-end logic semiconductors includes data centers but excludes servers and laptop PCs placed elsewhere.

# IMPACT ENABLER
## TOK Photoresists

### Global market size for semiconductor photoresists
(Based on sales in 2023*1)

**2,309,000,000** US dollars
Decreased by **12.1**% year-on-year

### TOK market share for semiconductor photoresists (based on estimated shipment quantity 2023*2)

**EUV photoresisats**
**30.0**%
Global No. 2

**ArF excimer laser photoresists**
**16.7**%
Global No. 4

**KrF excimer laser photoresists**
**33.7**%
Global No. 1

**g/i-Line photoresists**
**18.6**%
Global No. 1

### Market growth forecast for semiconductor photoresists (from 2022 to 2029)*3

— EUV photoresists —
CAGR
**20.4**%

— ArF excimer laser photoresists —
CAGR
**4.5**%

— KrF excimer laser photoresists —
CAGR
**4.2**%

— g/i-Line photoresists —
CAGR
**5.4**%

*1 Calculated by TOK based on aggregation by SEMI
*2 Source: Fuji Chimera Research Institute, *Current Status and Future Outlook of Cutting-edge/Noticeable Semiconductor-related Markets 2024*
*3 Based on actual shipments in 2022 and the estimated shipments in 2029 (calculated from Fuji Chimera Research Institute, *Current Status and Future Outlook of Cutting-edge/Noticeable Semiconductor-related Markets 2024*)

# Three Factors That Lead to Creation of Social Impact

## 1 High Added Value

Photoresists are high value-added chemical solutions mainly composed of photosensitizers, polymers, and solvents.

As indicated by its two root words "photo (light)" and "resist," it has the performance to react and change with "light" and "resist" etching, is essential for the semiconductor manufacturing processes, and is used to form miniature circuit patterns.

Since the circuit patterns greatly affect semiconductor performance, the improved quality and evolution of photoresists are significant factors that directly contribute to semiconductor evolution, ultimately leading to innovation and the creation of social impacts.

## 2 Key to Semiconductor Evolution

Miniaturization, one of the axes of semiconductor evolution, has progressed as the wavelength of light sources in the exposure process has shortened **(→ see pages 4–5)**.

The photoresists in use are designed to react most efficiently with each light source, and by recreating the photoresist from scratch to meet individual customer requirements, they support semiconductor evolution **(→ see pages 6–7)**.

# Crystallization of Resolving Trade-offs

## 3 Accumulation of Trade-ons through Ultimate Fine-tuning

Photoresists can only contribute to the evolution of semiconductors through individual optimization and development as custom-made products to meet the different needs for each customer's application and semiconductor manufacturing process, not just changes in light sources.

In this process, many technical trade-offs are resolved by repeated and precise fine-tuning to individual customer requirements and processes, which becomes the added value (impact enabler) of photoresists.

**Value Creation Story for Continuous Creation of Social Impact**



# CULTURE & BUSINESS MODEL

## Backbone of the Business Model—DNA and Corporate Culture—

Apart from the six financial and nonfinancial capital sources, the TOK corporate culture is an additional managerial resource that has taken root in all field employees and that developed from the DNA inherited from the era of Founder Shigemasa Mukai for the purpose of contributing to a sustainable future through chemistry. TOK will continue to develop its business model centered on customer-oriented strategies under this DNA and corporate culture, strive to accumulate trade-ons from short-, medium-, and long-term perspectives, and enhance corporate value.

### DNA



Shigemasa Mukai,
TOK founder

**— Ideal at foundation —**

**Challenging ourselves to develop products, however hard it may be, that are useful to society and not offered by other companies**

**— Policy for restart in the post-war era —**

**Create high-purity chemicals and other materials without imitating other entities but based on advanced technologies that cannot be easily imitated by other companies**

**— At the establishment of the Tokyo Ohka Foundation for the Promotion of Science and Technology —**

**As a resource-poor country, Japan must develop products based on the proprietary technologies accumulated through basic research and the application to industry, thereby contributing to the peace and prosperity of humankind.**

**Purpose: Contribute to a sustainable future through chemistry**

### Corporate culture

#### Purpose-driven

**Make sure that all management resources and initiatives ultimately contribute to society**

◆

**Creating shared value (CSV)**

◆

**Contribution to SDGs**

#### Pursuit for niche top

**Unfading startup spirit**

◆

**Blue ocean strategy**

◆

**Specialize in niche areas with high added value**

◆

**XGlobal Niche Top Companies Selection 100**

#### Long-run R&D

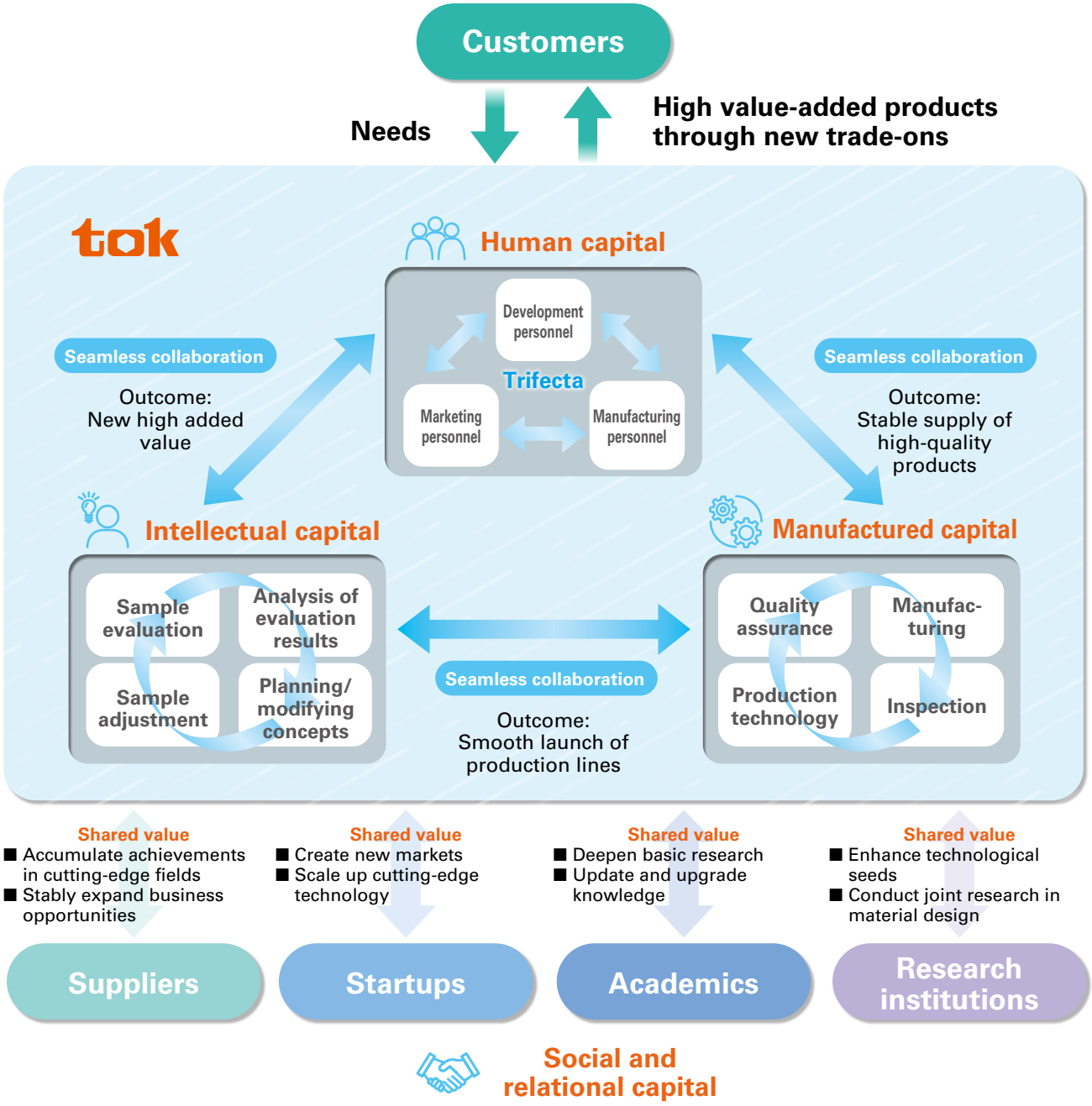
**Persistently continue with R&D in pre-emerging fields for more than 10 years**

◆

**A frank and open-minded business culture that takes on challenges in R&D and marketing as well as research under the table**

# Business Model—Promote Customer-Oriented Strategies Based on the Trifecta of Development, Manufacturing, and Marketing under the Unfading Startup Spirit—

In its customer-oriented strategies, human capital in the development departments, manufacturing departments, and marketing departments serve customers in a trifecta of seamless collaboration with resources across the TOK Group, thereby achieving the creation of high added value through new trade-ons, the smooth launch of products, and stable supply at high quality. The Group also provides customers with diverse shared value obtained through collaboration with suppliers, startups, academics and research institutions, and the open innovation embedded in our products.



# VALUE CREATION PROCESS

## TOK Sustainable Value Creation Process

While both opportunities and risks for the TOK Group are maximizing, TOK, with its management vision of "The e-Material Global Company™ contributing to a sustainable future through chemistry," is focusing on "boosting up" towards the realization of TOK Medium-Term Plan 2024, which is in its final year, and TOK Vision 2030, whose quantitative aspects have been significantly raised. TOK is contributing to the resolution of social issues based on the TOK purpose by creating interactions between technology (manufactured capital), human capital, and human connections (social and relational capital), which the Company has continuously evolved as a global niche top company and with a foundation of robust financial capital.

**Social issues/ megatrends** → **Inputs** (FY 2023/12)

**Electronic functional materials** | **High-purity chemicals**

Greater difficulty and longer spans in technological innovation

Spread of generative AI and energy issues / Accelerated use of 5G, IoT, and other technologies

Concretization and promotion of a transition plan for accelerating decarbonization

Global multi-polarization and division / Risks of misinformation and disinformation

Shift to a new mobility society

Widening of information and education inequalities resulting from economic disparity

Increases in the risks of using fossil resources / Biodiversity crisis

**Financial capital**
Total assets: **251.8** billion yen
Equity ratio: **72.9**%

**Manufactured capital**
Capital investments: **15.0** billion yen

**Intellectual capital**
Number of patent registrations: **331**
R&D costs: **12.6** billion yen

**Human capital**
Number of employees (consolidated): **1,877**

**Social and relational capital**
Selling products in **28** countries/regions

**Natural capital**
Initiatives for sustainable natural resources and biodiversity

### Management Principles
→ See page 0
Create a frank, open-minded business culture; continue efforts to enhance technology; raise the level of quality of products; and contribute to society

### Purpose and Management Vision
→ See page 0
"The e-Material Global Company™" contributes to a sustainable future through chemistry
* Purpose

### TOK Medium-Term Plan 2024
→ See pages 46–47
Increase the global market shares of cutting-edge photoresists, acquire and create core technologies for electronic materials and new fields, secure stable supplies of high-quality products and establish an optimal production system for the Group, improve employee engagement and promote people-oriented management, and establish a sound and efficient management foundation

### Initiatives for Material Issues
→ See pages 32–33 and 49–114
Contribution to innovation and the creation of social value, pursuit of employee happiness, establishment of a resilient organization, global environmental conservation in consideration of future generations, and supply chain sustainability

### Upgraded Customer-Oriented Strategies
→ See pages 54–58
Deepen the integration of the Marketing Division and the Research and Development Division, thereby upgrading the trifecta of development, manufacturing, and marketing into a new phase

### Global Niche Top Company
Maintain the business model that continues to develop and launch high value-added products in niche fields

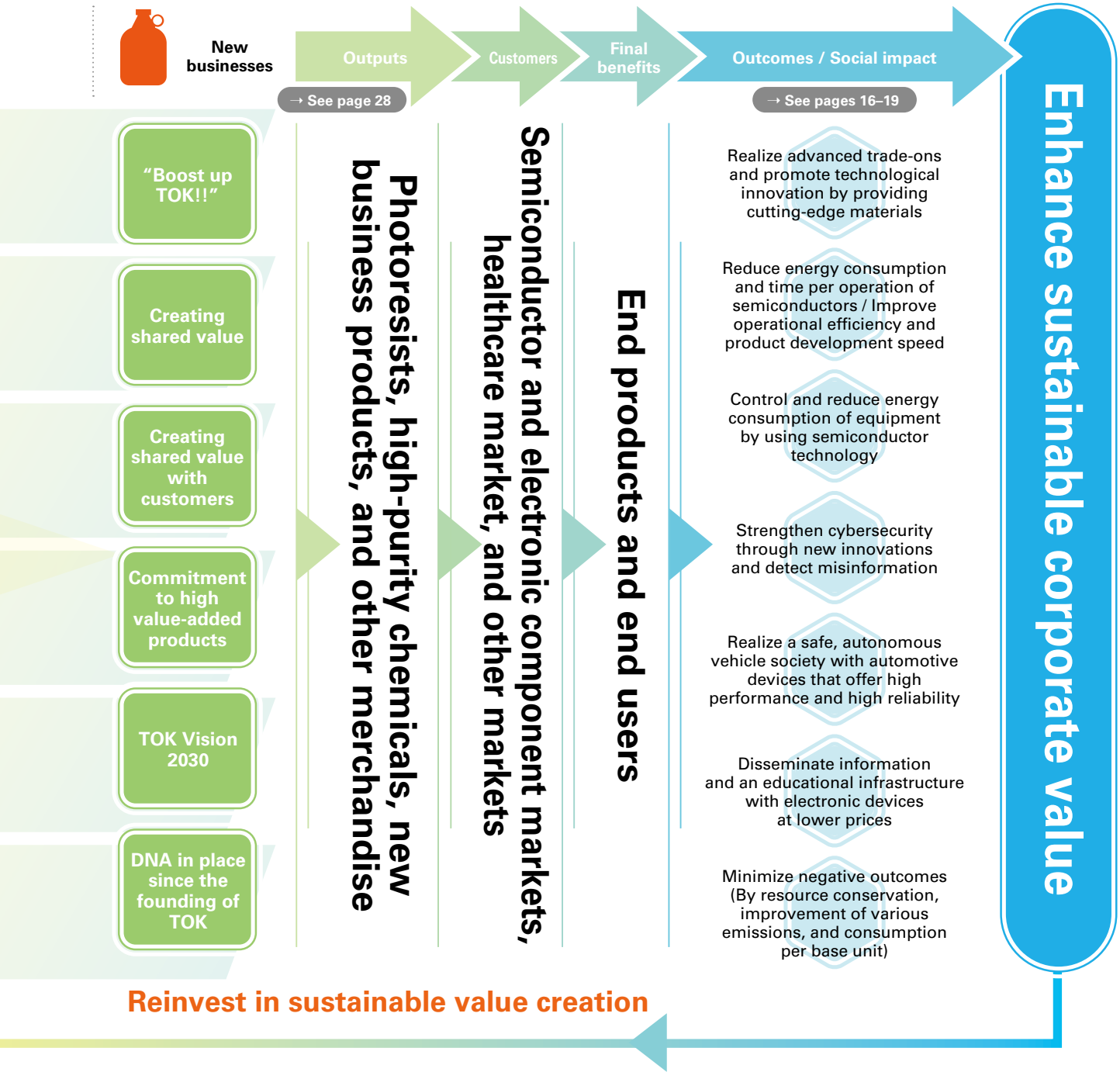
## TOK Vision 2030

**Revised upward in February 2024**

| Net sales | EBITDA | ROE |
|---|---|---|
| 350.0 billion yen | 77.0 billion yen | 13% |

- Provide new innovation that inspires customers
- Earn trust from stakeholders worldwide
- Continue developing high technological capabilities and show international presence
- Enhance corporate value sustainably with an aim to contribute to SDGs
- All employees can work lively with pride

Value creation in the semiconductor and electronics-related businesses, where both an agile response to extremely fast technological changes and long-term R&D are important, is supported by investments in human capital, by financial and capital strategies with a super-long-term view, by world-leading technological capabilities based on continuous R&D, and by initiatives for material issues. TOK will continue to flexibly upgrade the value creation process while closely monitoring the business environment as it contributes to high-level social and technical trade-ons, thereby enhancing its sustainable corporate value.



# PORTFOLIO

## Product Portfolio—Maximize Technology Synergies—

From FY 2023/12, the TOK Group operates the Materials Business as a single business segment consisting of two divisions: electronics functional materials and high-purity chemicals. TOK applies world-leading microprocessing technology to each product in the Electronics Functional Materials Division while fully demonstrating world-leading high purity processing technology in the High-Purity Chemicals Division. At the same time, TOK works to expand profits in advanced fields by maximizing the synergies between these two divisions.

### Electronic functional materials

**Materials for semiconductor front-end and back-end processes and display materials**

**World-leading microprocessing and high purity processing technology**

### High-purity chemicals

**Thinners, developing solutions, clean solutions for semiconductor front-end and back-end processes**

#### Electronic functional materials

**Advanced materials**
Essential materials for **cutting-edge semiconductor microprocessing fields**, such as ArF/EUV photoresists



**KrF excimer laser photoresists**
Materials used in both semiconductor **microprocessing/stacking and advanced/legacy nodes**

**Legacy materials**
Essential materials for **new and legacy power semiconductors and sensors**, such as g-line and i-line photoresists

**Materials for semiconductor back-end processes**
Essential materials for **semiconductor stacking and high-density integration**, such as packaging materials and WHS*-related materials, and MEMS materials

**Display materials / Other**
LCD materials, OLED materials, and other materials

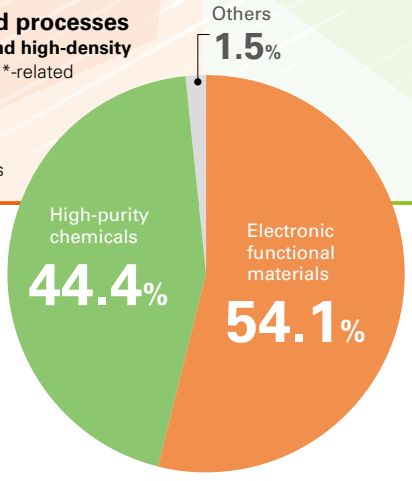
#### High-purity chemicals

**High-purity chemicals**
Thinners, developing solutions, clean solutions, and other chemicals with the **world's highest purity**



**Inorganic and organic chemicals**
Chemicals used in a wide range of industries






FY 2023/12

Consolidated net sales

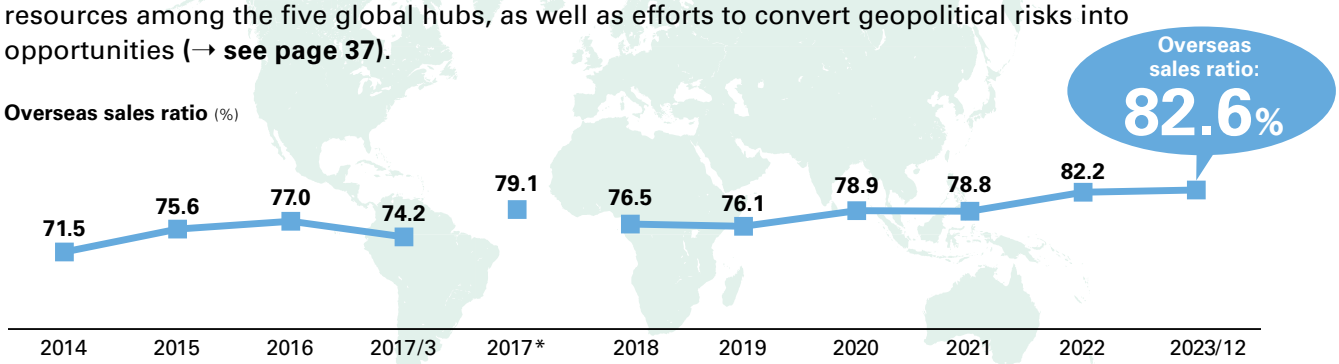
**162.2 billion yen**

* Wafer Handling System (manufacturing equipment for 3D semiconductor structures)

## RegionalPortfolio—Customer-Oriented,RiskDiversification,andOpportunityConversion—

Business has become increasingly globalized through the promotion of customer-oriented strategies focused on semiconductor fields. Our overseas sales ratio has been around 80% over the past several years. Considering the recent surge in economic security risks and accelerating multi-site operations by overseas customers, TOK will promote thorough customer-oriented strategies and risk diversification through the agile enhancement, utilization, and collaboration of managerial resources among the five global hubs, as well as efforts to convert geopolitical risks into opportunities (→ **see page 37**).

**Overseas sales ratio** (%)




* The Company changed its fiscal year-end from March 31 to December 31 effective as of fiscal year 2017.

**Japan**
- Headquarters (10 sites)
- Number of employees: 1,355






**The United States**
- Two local subsidiaries (three sites)
- Number of employees: 139






**China**
- One local subsidiary (one site)
- Number of employees: 26






**South Korea**
- One local subsidiary (one site)
- Number of employees: 163






**Taiwan**
- One local subsidiary (two sites)
- Number of employees: 183



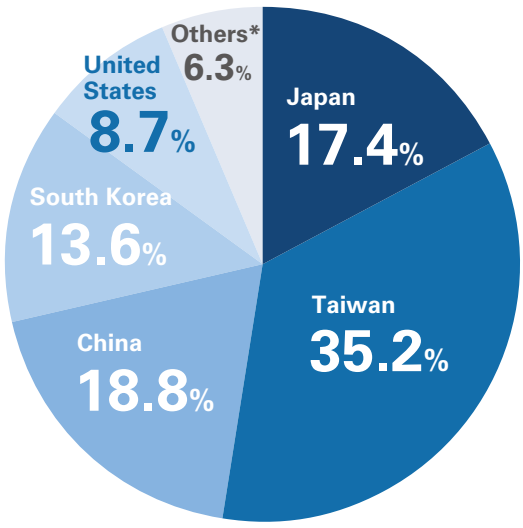



* Number of employees as of December 31, 2023, number of sites as of June 30, 2024

FY 2023/12

Consolidated net sales

**162.2 billion yen**

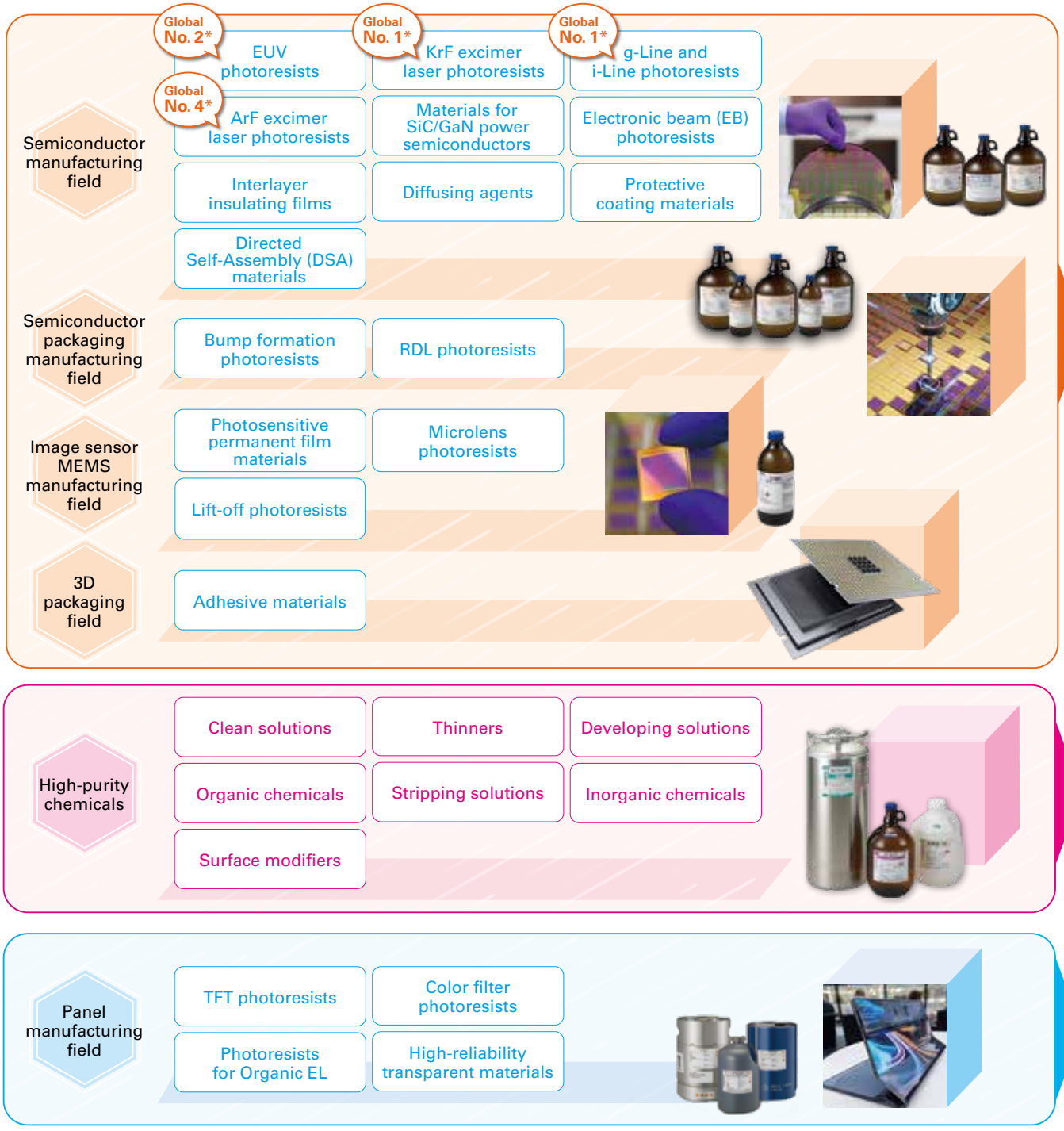



* Others: Europe, Singapore, and other countries

# OUTPUT & OUTCOME

## Increasing Outputs—Full Portfolio—

TOK has developed strong niche domains in both the front-end processes and back-end processes of semiconductor production with strengths in both miniaturization and stacking. As a long-established supplier of photoresists, TOK provides a full portfolio comprising both the legacy and cutting-edge fields. The Company also provides innovative value in non-photosensitive materials, such as high-purity chemicals, and is shifting to an increased production system towards realization of TOK Vision 2030.




* Based on estimated shipment volumes for 2023 (Source: Fuji Chimera Research Institute, *Current status and future outlook for markets related to advanced/noteworthy semiconductors 2024*)

SDGs to which we contribute

## Evolution of Outcomes—Contributing to Earth and Human Sustainability—

Against the backdrop of AI evolution and proliferation, and the increase in climate change risks, the challenges faced by the semiconductor industry have shifted to a different phase. Semiconductor materials in all areas, including not only the cutting-edge field but also the legacy field, have become indispensable for achieving a sustainable earth and human society. TOK resolves new trade-offs and provides a stable supply of these materials under its purpose of contributing to a sustainable future through chemistry.

**OUTCOME**

**Information terminals**
Smartphones
Tablet devices
PCs
Wearable devices



**Cloud computing**
Data servers
AI/Metaverse
Supercomputers
Gaming services



**Sensing and IoT**
AI
Autonomous vehicles/ADAS
Robotics




**Green energy**
Decarbonization/ renewable energy equipment
Eco-cars



Semiconductor manufacturing lines
Panel manufacturing lines



TVs
Displays
Smartphones
Tablet devices




Higher performance, lower power consumption, and miniaturization of devices

Convenient/ comfortable
Safe/secure
Environment-friendly living

Contribution to a sustainable Earth and human society

# STAKEHOLDER ENGAGEMENT

## To Establish Win-win Relationships with All Stakeholders

TOK will achieve long-term sustainable value creation by generating new solutions and have a social impact through collaboration with stakeholders in response to increasingly complicated social issues and advanced technological requirements.

TOK aims to establish win-win relationships with all stakeholders as explained below.




TOK will help to resolve and mitigate the new social issues that humanity must solve along with unanticipated risks, potential risks, and risks that have actually materialized by creating shared value through close communication with stakeholders in Japan and overseas.

### Customers

**■ Shared value**
- Provide new added value that inspires customers (TOK Vision 2030)
- Develop relationships of trust that allow continued value creation in innovative fields
- Ensure a production structure that guarantees a stable supply to society
- Expand the social impact through semiconductors

**■ Policies and basic initiatives**
- Focus on Strategy 3 under the TOK Medium-Term Plan 2024 **(→ See page 46)**
- Record-high investment in plants and equipment to support stable production in the semiconductor industry as a long-term growing trend
- Further deepen and advance customer-oriented strategies (trifecta of development, manufacture, and marketing)
- Flexible response to global multi-site operations of customers
- Risk distribution and conversion to opportunities by having production sites in four regions across the world
- Promote advanced initiatives in environment and sustainability-friendly products

**■ Communication channels**
- Customer-oriented sites established in Japan, the United States, China, South Korea, Taiwan, Singapore, and the Netherlands and collaboration and engagement at customer sites

**■ Specific examples and latest achievements**
- Received supplier awards from many customers



Texas Instruments Inc. Supplier Excellence Award (2022)

### Shareholders and investors

**■ Shared value**
- Long-term sustainable growth and corporate value enhancement
- Increased capital efficiency
- Reduced capital costs
- Strengthened engagement through constructive dialog

**■ Policies and basic initiatives**
- Communicate with enhanced transparency of business management through timely and fair disclosure of information on finance and business activities
- Executive officer, division manager of the General Affairs Division undertakes management and oversight as the IR Officer.
- Records of opinions and requests received through dialogues are collected and regularly reported to all directors as part of the information sharing process.
- In accordance with the Disclosure Policy, TOK endeavors to provide consistent information to ensure fair, timely, and appropriate disclosure.
- TOK has established rules for the management of insider information and strives to ensure stringent observance and compliance.

**■ Communication channels**
- Meetings for analysts and institutional investors (two sessions*) to discuss business results
- Individual meetings with analysts/institutional investors (334 sessions*)
- Briefings for individual investors (nine sessions*) to discuss financial results
- Integrated reports, business reports to shareholders, and notices of the convocation of ordinary general meetings of shareholders are published on the TOK website.

**■ Specific examples and latest achievements**
- Individual meetings with analysts/institutional investors containing ESG topics (16 sessions*)
- Selected as a constituent stock for JPX Nikkei Index 400

* Achievements in FY 2023/12

SX Brand 2024

Designated as an SX Brands 2024 by the Ministry of Economy, Trade and Industry and Tokyo Stock Exchange (April 2024)

## Employees and future generations

**■ Shared value**
- Ensure a frank, open-minded business culture as one of the management principles
- Promote a new personnel system and human capital measures that respect the values of each individual
- Establish an environment that enables a longer working life (e.g., enhancement of re-employment system)

**■ Policies and basic initiatives**
- The philosophy of the TOK Group Policy on Leveraging Human Capital is incorporated into the respective human capital measures
- Focus on Strategy 4 under the TOK Medium-Term Plan 2024 **(→ See page 46)**
- Focus on enabling all employees to work with enthusiasm and pride as an initiative under TOK Vision 2030. Feature the leveraging of global human capital as one of the Seven Management Strategies under the Vision

**■ Communication channels**
- Employee engagement survey
- Dialog sessions between young employees and the president
- Group reports issued in multiple languages (Japanese, English, Chinese, and Korean)
- Internal reporting system to identify and improve or prevent compliance risks at an early stage (Reports received: four times*)

**■ Specific examples and latest achievements**
- Strengthened communication to foster unity on a global basis (by issuing the group reports and the president's video message in multiple languages)
- Implemented CSR training for all employees, directors, and auditors in Japan: participation rate 100%*
- Introduced the Tokyo Ohka Global Employee Shareholding Association System

* Achievements in FY 2023/12



Dialogue sessions between young employees and the president

## Suppliers/ startups

**■ Shared value**
- Solid partnership to create high added value
- A supply chain that guarantees a stable supply for society while respecting the environment and human rights
- Based on the Occupational Health and Safety Policy, the utmost priority is placed on the maintenance of the health and safety of all internal and external persons (personnel) who provide service in the work environment of the TOK Group, and efforts are made to eliminate workplace accidents.
- Open innovation through corporate ventures

**■ Policies and basic initiatives**
- Chemical substance regulations, customer requirement standards, and TOK procurement policy are shared through the TOK Group Standards on Chemical Substance Management.
- Business transactions reflect the principles of impartiality, fairness, and transparency based on the CSR Policy while respecting human rights, society, and the global environment.
- Information is managed in accordance with the TOK Group Information Management Policy

**■ Communication channels**
- Inspection and verification of manufacturing systems through periodic audits (on-site and online)
- Joint research and development in the new R&D building

**■ Specific examples and latest achievements**
- Acceleration of open innovation in the TOK Technology Innovation Center and Semiconductor manufacturing materials laboratory

NLM Photonics

Investment in NLM Photonics, a developer of electro-optical polymers (June 2023)

## Academics, research institutions, and consortium

**■ Shared value**
- Initiatives for a technological breakthrough through industry-academia collaboration from a long-term viewpoint; enhancement and streamlining of basic research
- Activities to expedite the R&D process through collaboration with international research institutions
- Efforts to acquire business opportunities through participation in the industrial consortium

**■ Policies and basic initiatives**
- Accumulate technological seeds that will lead to future blue oceans and new concepts
- Acquire a broad range of technological seeds through open innovation in order to input internal resources in full scale as soon as the market takes off

**■ Communication channels**
- Send TOK human capital to universities and research institutions in Japan and overseas
- Joint research and development
- Provide grants for research and development activities through the Tokyo Ohka Foundation for the Promotion of Science and Technology

**■ Specific examples and latest achievements**
- Established a joint laboratory with Yokohama City University (July 2019)
- Established a joint research site with the Tokyo Institute of Technology (June 2023)
- Provided grants through the Tokyo Ohka Foundation for the Promotion of Science and Technology in 2023: 118 projects, ¥60.10 million

JOINT2

Participated in JOINT2, a consortium for the development of next-generation semiconductor packaging technology




Worked closely with IMEC, an international research institution for next-generation technology development over the past 20 years

## National/local governments and local communities

**■ Shared value**
- Sustainable development of society
- Response to global risks that include climate change, infectious diseases, and geopolitical risks
- Response to unexpected risks that will emerge

**■ Policies and basic initiatives**
- Purpose: Contribute to a sustainable future through chemistry
- Close collaboration with national/local governments and local communities toward the realization of TOK Vision 2030
- Proactively promote social contribution activities in the areas around TOK business sites by emphasizing cooperation and collaboration with local communities and establishing relationships of trust

**■ Communication channels**
- Negotiations with governmental authorities in Japan, the United States, South Korea, and Taiwan related to environmental regulations and applicable laws and regulations
- Activities in accordance with local policies and objectives in response to climate change risks and infectious disease risks, as well as the conservation of biodiversity
- Emphasize local communication during normal times as the basis of stable value provision to society

**■ Specific examples and latest achievements**
- Dialogue about the environment and safety: 806 participating employees*
- Dialogue with local communities

* Achievements in FY 2023/12

KAWASAKI BRAVE THUNDERS ©KBT

Concluded an official sponsorship contract with the Kawasaki Brave Thunders, a professional basketball club (September 2023)



Participated in the afforestation activities with residents of Kanagawa Prefecture through the Kanagawa Trust Midori Foundation

# OUR MATERIAL ISSUES

## Initiatives to Address Material Issues for Enhancing Sustainable Corporate Value

TOK defined the material issues as the starting point for its long-term initiatives for the attainment of TOK Vision 2030, a 100-year company in 2040, and carbon neutrality by 2050. The company has endeavored to address the material issues closely linked to TOK Medium-Term Plan 2024.

### —Toward Achieving a Sustainable Future—

TOK aims to become "The e-Material Global Company™ that contributes to a sustainable future through chemistry" under TOK Vision 2030 where diverse benefits will be realized through the semiconductor technologies of autonomous vehicles, AR/VR, remote medical care, remote agriculture, and remote construction projects with the core initiatives of generative AI and the communication revolution (Beyond 5G).

The TOK Medium-Term Plan 2024 was formulated by backcasting from the Vision with the objective of acquiring abundant business opportunities pertaining to a sustainable future while implementing counter-measures against the risks of the increasing severity of climate change, rising geopolitical risks, and the spread of infectious diseases.

The company defined the five material issues faced by TOK aimed at enhancing sustainable corporate value by handling these risks and opportunities. TOK will increase the effectiveness of its key initiatives and the KPI for each material issue by promoting a PDCA cycle in close linkage with the TOK Medium-Term Plan 2024.

### Process of defining material issues

**STEP 1** TOK selected the issues that it must address to create sustainable value by considering the applicable guidelines in Japan and overseas, and the Responsible Care Code of the Japan Chemical Industry Association.

**STEP 2** TOK evaluated the selected issues in order to prioritize them from the two axes of importance for society and stakeholders, which considered day-to-day dialogues with ESG investors and other stakeholders, and the importance to TOK management, which considered strategies under TOK Vision 2030 and the TOK Medium-Term Plan 2024 and identified the five most important items.

**STEP 3** TOK defined the identified items as material issues, along with key initiatives, risks, and opportunities in a PDCA cycle for each issue, through discussions and approvals at meetings of the Board of Directors.

### Material issues

- Contribution to innovation and the creation of social value
- Pursuit of happiness by human capital
- Establishment of resilient organization
- Global environmental conservation considering future generations
- Supply chain sustainability

### Revised Risks and Opportunities in April 2024

In FY 2024/12, the final fiscal year of TOK Medium-Term Plan 2024, material issues were maintained. However, in response to the expansion of the generative AI market and rising geopolitical risks, the Board of Directors deliberated and adopted a resolution to revise Risks and Opportunities.

# Achievement of a sustainable future under TOK Vision 2030

Backcasting

Accumulated achievements

## TOK Medium-Term Plan 2024

Close linkage

## Material issues




| Material issues | SDGs to which we contribute | ESG fields | Risks and opportunities |
|---|---|---|---|
| Contribution to innovation and the creation of social value | 3, 9, 11, 12, 13, 17 | Social (S) | ■ Intensification of global competition in the semiconductor industry and increased strategic importance<br>■ Response to geopolitical risks and supply chain disruptions and creation of new business opportunities<br>■ Expansion of the role of semiconductors in innovation and the resolution of social issues<br>■ Increase in power consumption due to the spread of generative AI and rising demand for new energy-efficient semiconductors<br>■ Increasingly complex silicon cycle<br>■ Technological advances and market expansion in innovative fields, both in the miniaturization and in the 3D packaging of semiconductors; expansion of applications for older generations (legacy fields) |
| | | | ■ Expansion of applications and social need for semiconductor technologies (such as life science-related materials, functional materials, and optical materials)<br>■ Risk reduction and long-term stable growth through the diversification of the business and regional portfolio and multiplication of target markets |
| | | | ■ Increase in the need for further advances, complexity, and ultrahigh purification of semiconductor materials<br>■ Mixed presence of fields with a tight supply and fields with an oversupply in the semiconductor market |
| Pursuit of happiness by human capital | 3, 4, 5, 8, 10 | | ■ Intensification of cross-border competition for recruitment of human capital in semiconductor-related industries<br>■ Global human capital development in conjunction with the increase in the overseas sales ratio<br>■ Increase in the importance of happiness of employees and society (wellbeing) |
| | | | ■ Creation of innovation and increase of competitiveness through the leveraging of diverse human capital<br>■ Aging of employees and the utilization of "know-why" of senior human capital |
| | | | ■ Constraints on human mobility due to rising geopolitical risks |
| Establishment of resilient organization | 16, 17 | Governance (G) | ■ Increase in the potential risks involved in business growth and the increase of stakeholders<br>■ Rapid changes in the business environment in the era of VUCA |
| | | | ■ Increase in sustainability requirements in governance<br>■ Upgrades to the supervisory and control functions to directly link business growth to the enhancement of corporate value |
| | | | ■ More stringent laws and regulations (ordinances) based on global initiatives for sustainability and decarbonization<br>■ Maintenance and enhancement of social trust and brand power in local communities overseas |
| | | | ■ Increase in tail risks that include pandemics and extremely severe natural disasters<br>■ Strengthening of risk resilience to continuously fulfill supplier's responsibility |
| Global environmental conservation considering future generations | 6, 7, 11, 12, 13, 14, 15 | Environment (E) | ■ Cost increase to respond to carbon pricing introduction and policies/laws and regulations<br>■ Cost increase for process/product temperature management, water stress, and water procurement difficulties due to rising temperatures<br>■ Contribution to lower power consumption through miniaturization of semiconductors<br>■ Increase in demand for power semiconductors |
| | | | ■ Increase in interest in the marine plastics issue<br>■ Expansion of a circular economy |
| | | | ■ Tighter emissions regulations in major developed countries<br>■ Further risk reduction by satisfying standards stricter than regulatory requirements |
| | | | ■ Increased risk of global biodiversity loss<br>■ Risk reduction through initiatives addressing biodiversity and water resources as a single issue |
| Supply chain sustainability | 12, 17 | | ■ Tighter chemical substance control regulations in major developed countries<br>■ Increased product value by taking thorough action prior to legislation from before and during the early stages of material development |
| | 3, 12 | Social (S) | ■ Increased risks of accidents due to the increase in production sites, production volume, and operating hours<br>■ Escalation of human rights risks resulting from expansion of the supply chain and increases in the importance of lifecycle assessment<br>■ Further risk reduction through RBA audits and ISO 45001 certification |



**Guided by purpose-driven value creation and a long-term growth strategy, we will continue to work diligently to build new trade-ons and foster innovation.**

## Noriaki Taneichi

Representative Director,
President & Chief Executive Officer

# To Our Stakeholders — Message from the President —

## New beginnings

### Revival of Japan's semiconductor industry

With the increasingly sophisticated and complex social and environmental challenges facing humankind, the semiconductor industry, which contributes significantly to the solutions to those challenges, began experiencing extraordinary growth about three years ago and, despite hitting a temporary plateau, has continued to expand. Globally, the industry has planned and initiated the construction of 139 semiconductor factories since 2021 with a total investment amounting to approximately 170 trillion yen (according to our company's research).

Amid these circumstances, on February 24, 2024, two days after the Nikkei Stock Average reached its highest value in 34 years, our company's largest customer, a leading global semiconductor manufacturer, opened its new manufacturing base in Kumamoto Prefecture. It is the customer's first manufacturing base in Japan. We plan to supply high-purity chemicals and other products to the plant from our new Aso Kumamoto site. Moreover, the company's second Japanese plant, which is scheduled to begin operations in 2027, is set to produce advanced semiconductors using the 6–7 nm process, primarily for high-performance computing (HPC) and other applications. In addition, a Japanese semiconductor manufacturer, established in 2022 with investments from eight domestic companies, plans to open a factory in Hokkaido and aims to produce 2 nm semiconductors by 2027. With this series of developments, our Group is entering a new chapter while securing business opportunities in innovative fields within Japan, which had primarily been focused overseas until now.

Attending the aforementioned opening ceremony, I was excited about the new business opportunities and renewed my determination to contribute to the continued growth of the semiconductor industry, both domestically and internationally, in the future.

### Connect the ecosystem we cultivated to create a virtuous cycle

As you know, Japan's semiconductor industry flourished in the late 1980s, but since the 1990s, the industry was forced to shrink because of Japan-US trade friction, delays in large-scale investments, and the rise of the horizontal specialization, such as foundries.*1 During this time, the semiconductor materials industry and the manufacturing equipment industry, which includes our company, have steadily promoted research and development, as well as capital investments, to secure new business opportunities for sustainable growth. In particular, the domestic value chain built by Japan's semiconductor materials industry with raw material suppliers and business partners has developed into a robust ecosystem centered on close collaboration, which created a virtuous cycle. For example, for photoresists, our company holds the world's top market share at 23.1%, and together with five Japanese companies, we account for 65.9%*2 of the global market, which reflects our overwhelming global presence today. At present, governments around the world are competing to attract the semiconductor industry, and semiconductor material manufacturers, including our company, are in the process of reviewing the supply chain strategies. Leveraging this ecosystem, our Group will continue to expand overseas while also seizing new business opportunities in Japan to the maximum extent possible to foster an even greater virtuous cycle.

*1 Foundry: A type of business model that only handles production for semiconductor manufacturers and fabless companies
*2 Based on the projected shipment volume in 2023 (Source: calculated based on Fuji Chimera Research Institute, *Current Status and Future Outlook for markets related to advanced/noteworthy semiconductors 2024*)

### Looking forward to the revival of the Japanese electronics industry

On the other hand, semiconductors, essential to all industries just like "water," produce a ripple effect that could be described as a multiplier effect. Since they are used by a variety of users, such as the global electronics industry, they generate significant economic ripple effects. However, in Japan, the electronics industry, which is a user of semiconductors, has contracted during the "lost 30 years." Therefore, I believe that unless the entire electronics industry experiences a resurgence, we are unlikely to see a significant ripple effect on the domestic economy at this time. In order to realize the revival of the Japanese economy using the revival of the semiconductor industry and its multiplier effect as a trigger, it is essential to revive the domestic electronics industry, which is a user of semiconductors. For this reason, I look forward to the future development of the domestic electronics industry, and this is also why TOK Group aims to become "The e-Material Global Company™" rather than "The Semiconductor Material Global Company" as state in our management vision. Guided by this vision, our aim is to continue to achieve sustainable growth and create social impact alongside semiconductor manufacturers and the electronics industry **(→ See pages 16–21 "IMPACT ENABLER")**.

# Contribution to innovation

## Contributing to the creation of a variety of types of social value brought about by generative AI and maximizing the ability to generate cash

Despite the acceleration of new developments in the global semiconductor industry, the global semiconductor market in 2023 shrank by 8.2% year-over-year (YoY) due to global inflation, rising interest rates, and a decline in personal consumption and capital investment driven by increasing geopolitical risks. Starting in the second half of the year, however, demand in the semiconductor industry returned to a growth trajectory driven by generative AI, and demand is expected to reach an all-time high once again in 2024.*3

Generative AI, which is said to have a social impact comparable to that of the Internet and smartphones in the past, is bringing a variety of benefits to humankind even when looking just at the current visible signs, such as automation and efficiency of office work, improvement in employee creativity and motivation, reduction of occupational accidents, accelerated development of new drugs, and improvements in cybersecurity. In addition, there is still a lot of room for growth because generative AI is still in its infancy and is expected to grow at an average annual rate of 53.3% because of further performance improvements and application development to reach US$211 billion by 2030, which is about 20 times the 2023 market.*4 Graphics processing units (GPUs) and high bandwidth memory (HBM), which specialize in mass and high-speed parallel processing, are at the heart of generative AI and hold the key to further improvements in performance and the expansion of social and economic value.

In the manufacture of GPUs and HBMs, EUV/ArF/KrF photoresists are indispensable in front-end processes; packaging materials (bump formation resists) and WHS materials are indispensable for the back-end processes. Therefore, the Group is currently focused on the large-scale production and the stable supply of these products as a world-class manufacturer of EUV/KrF photoresists and packaging photoreists. Although we are currently ranked fourth in the world for ArF photoresists, we are steadily expanding the market share for advanced HBM, and we will continue to aim for the world's top market share. Going forward, TOK Group will continue to maximize its cash-generating capabilities by contributing to the creation of the social values brought about by generative AI under the three core competencies of *world-leading microprocessing technology, world-leading high-purity processing technology, and customer-oriented strategy*.

*3 Source: World Semiconductor Trade Statistics (WSTS)
*4 Source: Japan Electronics and Information Technology Industries Association *World Production Outlook for the Electronic and Information Technology Industries* (December 2023)

## Utilizing the strengths of stacking technology in the back-end processes of semiconductor manufacturing

As previously mentioned, as the supply of various products for generative AI expands, stacking technology for the back-end processes of semiconductor manufacturing, such as innovative packaging materials, is becoming an area where our strengths can be employed.

Semiconductors can achieve significant advancements through vertical stacking in the back-end processes in addition to the miniaturization in front-end processes. This evolution can contribute to overcoming more advanced and complex social and scientific challenges, as well as enhancing convenience, safety, and comfort in everyday life. Furthermore, vertical stacking can help address the urgent social issue of increasing energy consumption in data centers. As the technical challenges of miniaturization grow year by year and approach their limits, this approach is becoming increasingly more important in supplementing miniaturization.

In the development and production of materials for back-end processes, we have two major strengths.

The first is the *deepening the customer-oriented strategies* unique to back-end processes. There are many major customers for front-end processes, and by observing the actions of the major players, we can grasp the significant technology trends and future roadmaps. On the other hand, the back-end market is made up of customers of various sizes, such as OSAT (stands for Outsourced Semiconductor Assembly and Test). The challenge in marketing here lies in carefully addressing a wide variety of needs while working closely with individual customers and developing solutions by identifying the maximum number of common factors. Therefore, in addition to forecast marketing, which addresses the immediate challenges of customers through cooperation between the Strategic Alliances Department, directly overseen by the president, and the Marketing Division, we are also strengthening backcast marketing, which proposes current strategies by working backward from predictions of technology trends and applications 5 to 10 years into the future.

Another strength of the company in back-end processes is its broad technology portfolio. Even in the area of stacking, miniaturization is accelerating, which requires the implementation of as many interconnects as possible within a limited space. Additionally, the height (high aspect ratio) of the interconnects is necessary to allow for greater electrical conductivity. In addition to miniaturization being our core competence, we have demonstrated strengths in achieving high aspect ratios through the extensive knowledge and expertise we have accumulated as a long-established photoresist company. We also possess a broad range of technical assets (intellectual capital) in stacking, including the ability to provide both positive and negative photoresists depending on customer processes.

As well as further refining these strengths, we will continue to accumulate new trade-ons*5 in the back-end processes through the tireless efforts of our development staff based on our *technology for controlling electronics*, which is the foundation of our semiconductor-related business. There is still significant room for trade-ons and innovation in packaging materials for back-end processes. Given that back-end processes are likely to be the key growth driver in the revitalization of Japan's semiconductor industry, our Group will continue to pursue a full lineup strategy across both front-end and back-end processes.

*5 To balance conflicting technical and social needs, etc.

# Recognition of business environment

## Tackling humanity's biggest trade-offs as both opportunities and risks continue to intensify

The global semiconductor market is expected to reach its largest size ever in 2024, driven by generative AI as mentioned earlier. Subsequently, the market is projected to continue growing at an average annual rate of about 10%, fueled by the expansion of automotive applications, and reach 1 trillion US dollars by 2030, approximately 1.9 times the size of the market in 2023.*6

On the other hand, the situation of *maximizing both opportunities and risks* that I mentioned in last year's integrated report has become even more pronounced. In 2023, the global average temperature reached the highest level ever recorded, and at COP28 at the end of the year, a significant delay in achieving the 1.5°C target was confirmed. As a result, climate change risks will continue to increase year by year. Under such circumstances, while generative AI, which has been emerging in the market since 2022, is creating significant social value as mentioned earlier, its high-power consumption has become a risk factor. The pressing issues are to reduce the power consumption of generative AI systems, secure new energy sources, and rebuild the power supply ecosystem. The semiconductor industry, including our company, is acutely aware of this issue, and the most important theme in the development of innovative generative AI is *balancing performance with power efficiency*. Overcoming this risk, which is inherently linked to the vast opportunities brought by generative AI, represents one of the greatest trade-offs that humanity must resolve. In response to this challenge, our Group intends to fully mobilize the four earning capabilities across the four focus areas: information terminals, cloud computing, sensing & IoT, and green energy. These capabilities are technology (manufactured capital and intellectual capital), human capital, human connections (social and relational capital), and finance (financial capital); we aim to transform them into new business opportunities **(→ See pages 16–19)**.

Specifically, as a short/medium-term initiative in the cloud field, we will contribute to reducing power consumption per chip and per operation by miniaturizing and stacking semiconductors using world-leading microprocessing technology. In addition to applying this technology to information terminals, we will continue to develop and provide sensor materials for robotics to optimize power efficiency in the sensing & IoT field, as well as materials for both new and conventional power semiconductors in the green energy field while contributing to the reconstruction of the power ecosystem.

In the long term and the super-long term, our focus will be on developing materials for photoelectric fusion devices, which will achieve significantly greater power savings compared to current semiconductors. Currently, the development of photoelectric fusion devices by major telecommunications companies and semiconductor manufacturers, both in Japan and overseas, is accelerating with the goal of achieving practical use in the 2030s. We are focusing on exploring materials beyond conventional frameworks in the development of materials for these devices, and we aim to contribute to global decarbonization by accumulating new trade-ons for photoelectric fusion.

*6 Source: SEMI Japan

## Turning geopolitical risks into new opportunities

Regarding the geopolitical risks, which are one of the factors behind the aforementioned revival of Japan's semiconductor industry and are becoming increasingly more pronounced, we will continue to mitigate the risks by flexibly managing our regional portfolio, which includes Japan, the United States, China, South Korea, and Taiwan. This will involve using both the *local production and consumption model and the base consolidation model*. At the same time, we will strengthen our offensive approach by turning the responses to the geopolitical risks into opportunities for creating new business ventures. For example, under the TOK Medium-Term Plan 2024, we are currently constructing a new inspection building at our Korean base, which is scheduled to begin operations in 2026, as part of the largest capital investment in our history. Additionally, we will acquire a new factory site in Korea and plan to start operating the new facility in 2028. Through these investments, our Group will establish a system that steadily captures growing global demand while minimizing the impact of geopolitical risks associated with China and Taiwan. As India has now begun moving toward the localization of semiconductors, we will continue to work with our partners to prepare for business development in the region.

### Aiming for a society where *happiness* outweighs *unhappiness* when risks materialize

In the *Global Risk Report* issued ahead of the world economic forum annual meeting in January 2024, misinformation and disinformation risks, driven by the spread of generative AI, were identified as the top risks for the next two years. Furthermore, there are concerns that the associated geopolitical risks and risks of disruption will continue to rise. However, I believe that information gaps and communication failures are at the root of these risks. If communication methods, such as information terminals and telecommunication systems, further evolve and become more widespread with advances in semiconductors, it will be possible to prevent *unhappiness* of wars and conflicts by fostering deeper mutual communication and understanding between neighboring countries, communities, and stakeholders worldwide. This, I believe, is what society expects of us.

I believe in the potential of semiconductors; consequently, I told the 58 new graduates who joined the company in April 2024, "If you consider that the evolution of semiconductors contributes to peace for humanity, your work will become even more meaningful." I also emphasized that continuous advances in semiconductors will enhance society's overall happiness. As the world's leading manufacturer of photoresists for semiconductors, our Group will continue to strive for a society where *happiness* surpasses *unhappiness* when risks materialize. As part of this effort, we established a new ERM department in April 2024 to comprehensively and professionally address all short-, medium-, long-, and super-long-term risks recognized by TOK Group. First, we are identifying all these risks and building effective countermeasures for emergencies.

## With a view to developing as a 100-year company in 2040

### Upward revision to the TOK Vision 2030

Since formulating TOK Vision 2030 in 2020, the Group has focused on the strategies outlined in the TOK Medium-Term Plan 2021 and TOK Medium-Term Plan 2024 to achieve the goals of 200 billion yen in sales, 45 billion yen in EBITDA, and an ROE of 10% or more by 2030, under the management vision of "The e-Material Global Company™ contributing to a sustainable future through chemistry." As a result, partly because of the rapid expansion of the semiconductor market driven by stay-at-home demand during the COVID-19 pandemic, sales and EBITDA progress rates exceeded 80% by the end of the second year, FY 2022, with ROE also surpassing the target. In addition, the environment surrounding the semiconductor industry has changed significantly since the vision was formulated in 2020, with the recent emergence of generative AI. As mentioned earlier, the semiconductor market is expected to grow to 1.9 times its 2023 size by 2030. Therefore, we have revised our sales target for FY 2030 to 350 billion yen, 1.7 times the previous target, and increased the ROE target to 13%. TOK Group will work together to achieve TOK Vision 2030 with the aim of enhancing our sustainable corporate value by leveraging the various achievements, economic value, and social value generated through the Group's initiatives over the next six years and with the goal of becoming a 100-year company in 2040.

Along the way, the number of workplace accidents has been on the rise because of the rapid growth over the past two years—eliminating these incidents has become a top priority. Additionally, we will continue to share the fruits of our growth with shareholders and employees through our dividend policy targeting 4.0% DOE, continuous salary increases, and the global employee shareholding association system, which will be described later. By fostering further dialogues with all stakeholders, we aim to create a virtuous cycle that drives improved corporate value.

### Digitally promoting further interactions between capital in the value chain

As part of this effort, we will further strengthen our financial base (financial capital), the foundation of the four earning capabilities, through balance sheet management to promote greater interaction between the capital within the value chain. This will support proactive challenges and risk-taking in developing technologies (manufactured capital and intellectual capital). We will continue to prioritize improvements in employee engagement and expansion of our human capital to build broad human connections (social and relational capital). Additionally, we aim to accumulate new trade-ons, drive innovation, and increase corporate value by sharing information with a variety of external parties and enhancing our knowledge. Furthermore, throughout these initiatives, we will continue to pursue relentless growth with an unfading startup spirit underpinned by a strong financial foundation and with an eye toward acquiring new profit pillars through M&A. In March of this year, we established the IT and Digital Division to digitally visualize the four earning capabilities within the value chain and to further enhance the interaction between these capital sources **(→ See page 60 "Message from the Executive Officer of DX")**.

# Sustainability governance —Recent achievements and key measures for the future

## Closely linking the Medium-Term Plan and material issues under our unique sustainability governance structure

The fiscal year ended December 2023, the second year of the TOK Medium-Term Plan 2024, which closely links all strategies to material issue efforts, saw a decline in revenue and profit due to the shrinking semiconductor market described earlier. However, there were clear results and progress in all five strategies linked to the material issues: contribution to innovation and the creation of social value, pursuit of happiness by human capital, and global environmental conservation considering future generations **(→ See page 46)**. Each strategy and material issue are driven by our unique sustainability governance system, which involves collaboration between the Council of Directors (theme setting and discussions) and the Board of Directors (resolutions and monitoring), and recently, we have seen the following notable results.

## Establishment of the Human Capital Division to further evolve value creation

Under the material issue of the "Pursuit of happiness by human capital," it has been two years since the introduction of the employee engagement indicator as a KPI alongside ROE in the executive remuneration system. The awareness of aligning the self-realization of each individual employee with the company's growth has started to take root as a mission among all executives and management. Under these circumstances and because the employee engagement survey results in FY 2023 showed room for improvement, we formulated six human capital priority measures for FY 2024 through a full-day discussion involving all executives **(→ See pages 61–65 "Message from the Executive Officer of Human Capital")**. Furthermore, to continue evolving our human capital strategy as the foundation of the Group's value creation, we established the Human Capital Division in March 2024. In addition, in August 2023, we introduced the Tokyo Ohka Global Employee Shareholding Association System to further promote value creation as a unified group with all employees in Japan and overseas focused on improving business performance and corporate value. This system was introduced on the basis of my strong desire. I hope that the executives and employees at our global bases, who are responsible for generating the Group's cash overseas, will not only enjoy the benefits of performance growth through salaries and bonuses but also benefit as shareholders by holding shares as long-term assets. Going forward, the Group will continue to work to enhance corporate value in the medium to long term by uniting the domestic and international human capital.

## Developing an interim target to align our growth strategy with the 1.5°C target

As mentioned earlier, it was confirmed at COP28 that global progress towards the 1.5°C target is delayed. In response, and with the goal of achieving carbon neutrality as the fundamental premise of our sustainable future and The e-Material Global Company™ vision, our Group formulated an interim target in February of this year (30% reduction in Scope 1 and 2 emissions from 2019 levels by 2030, on a consolidated basis) in line with the upward revision of sales by 1.7 times in the TOK Vision 2030 and our commitment to achieving carbon neutrality by 2050. In formulating the plan, the Council of Directors had extensive discussions while keeping global sustainability disclosure trends in mind. We prioritized absolute quantity over per-unit targets and set the interim target for the entire Group, not just Japan. If the Group does not undertake reduction efforts, $CO_2$ emissions are expected to increase significantly by 2030 compared to 2019 levels. This interim target is an aggressive goal aimed at reducing projected emissions by more than 70% **(→ See pages 72–75 "Message from the Director of the Environment")**. In addition to leading the monitoring of future progress and the PDCA cycle, the Board of Directors, which approved this target, is currently working to formulate reduction targets that include Scope 3 emissions under the sustainability governance structure that includes the Council of Directors.

Also, although PFAS*7 regulations in the semiconductor industry are expected to be enacted after 2038, there are concerns about the industry's impact on biodiversity. Because the replacement of PFAS with substitutes is becoming an urgent issue in competitive strategies and a new growth opportunity, we are currently accelerating the research, development, and introduction of PFAS-free products.

Please continue to look forward to our long-term growth strategy, driven by the Group's Purpose, and the enhancement of corporate value through the accumulation of trade-ons.

*7 Per- and polyfluoroalkyl substances
Substances that are widely used in daily necessities, semiconductor materials including photoresists, and semiconductor manufacturing equipment, but about which there are concerns about the impacts on human health and biodiversity.

# Message from the Executive Officer of Accounting and Finance

## Our aim is for sustainable corporate value improvement by continuing to evolve BS management using all capital, including the nonfinancial aspects.



**Okikuni Takase**
*Executive Officer, Division Manager, Accounting and Finance Division*

### Toward enhancing sustainable corporate value

**Continuing to evolve BS management based on six capitals, including nonfinancial aspects**

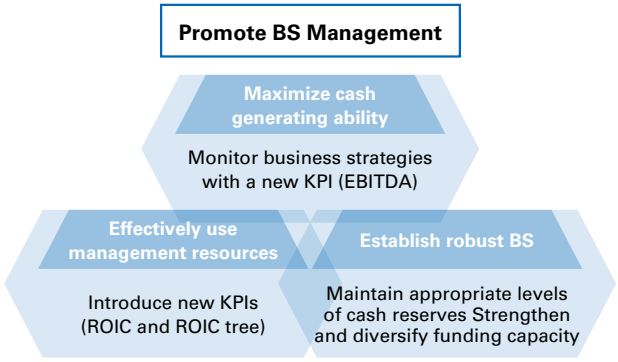
With daily quick response capability to win through the fierce competition in the innovative semiconductor field, TOK, which promotes long-term R&D over 10+ years, is striving to improve sustainable corporate value by focusing on management based on the long-term perspective of 10-year units as well as in its growth strategy. As the director of Accounting and Finance, I intend to continue evolving the group's long-term growth potential and sustainable value creation foundation through BS management that includes all capital, including the nonfinancial aspects.

As we work toward achieving the upwardly revised TOK Vision 2030 and passing on to a 100-year-old company in 2040, we are currently striving to achieve sales of 350 billion yen (2.2 times 2023), EBITDA of 77 billion yen (2.5 times 2023), and ROE of 13% (5.8 points up) by 2030 by enhancing the four earning capabilities that include financial capital and nonfinancial capital of technology (manufactured capital and intellectual capital), human capital, and human connections (social and relational capital), as well as evolving initiatives for natural capital.

Specifically, for manufactured capital, we will build a global supply chain that can optimally and flexibly respond to customers' base strategies and their changes while continuing our largest-ever capital investment. Regarding intellectual capital, we will continue our largest-ever R&D investment, construct, operate, and strengthen our IP landscape and strategy linked to the product portfolio and R&D strategies **(→ See page 58 "Message from the General Manager of Intellectual Property Management")** while deepening collaboration with startup companies and academia to acquire abundant technology seeds. Regarding the social and relational capital, we will strengthen our contribution to local employment, ensure appropriate tax payments, and promote participation in consortia based on national strategies, in addition to further expanding our customer base and collaborating with startup companies and academia. Regarding natural capital, we will also minimize negative environmental outcomes (negative impacts) accompanying production scale expansion by expanding our investment in renewable energy and contribute to *investment circulation* that benefits human and global environmental sustainability by providing high quality returns to ESG investors. As we execute these strategies with regard to human capital, which is the source of the Group's value creation, we will continue investing in expanded recruitment, continuous wage increases, the 65-year retirement system premised on maintained compensation, and a recognition system that offers monetary rewards, as well as maintaining our focus on capital investment and efficiency investment (work-style reforms, AI utilization, etc.) to improve employee engagement.

I will continue to focus on maximizing cash generating capacity, effectively using management resources, and creating resilient balance sheets, which are the financial strategies of TOK Vision 2030, to evolve and strengthen cash allocations to nonfinancial capital. We will further expand our efforts to quantitatively disclose social impacts from the power-saving effects of the miniaturization of semiconductors and $CO_2$ emission reduction contributions through power semiconductors as outcomes **(→ See pages 16-21 "IMPACT ENABLER")**, and continue our efforts to create a human capital balance sheet, technology balance sheet, and human connection balance sheet to evolve balance sheet management that includes nonfinancial capital. In this way, we intend to achieve the trade-on of both maximizing the cash generation capability and reducing capital costs so that TOK will continuously contribute to a sustainable future through chemistry as its purpose and achieve the enhancement of sustainable corporate value.

**Establish and effectively use the financial foundation as a strategy under TOK Vision 2030**



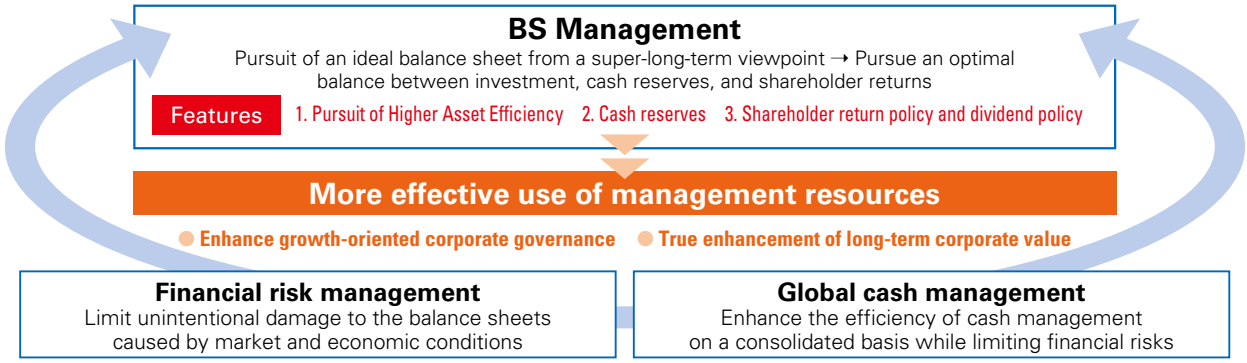

**Cash reserve policy**

As a long-running R&D-driven company, TOK calculates cash reserves from the standpoint of securing the necessary funds.

- Develop technologies in anticipation of a super-long time frame
- Continuously tackle challenges over a super-long time frame
- Respond rapidly when the unexpected happens (restoration and rebuilding following major disasters)

Amount of cash reserves = Investment reserves + Risk reserves

**Continue promoting the trinity of BS management, financial risk management, and global cash management**




### Focus on business portfolio restructuring, including M&A

In the roadmap to achieve consolidated sales of 350 billion yen in 2030, we first aim to achieve about 300 billion yen by combining this with robust financial capital and expanding efficient and stable supply chains in Japan and overseas since our non-financial capital in the semiconductor materials field is at a level that does not allow others to catch up. On the other hand, we are prepared to further accumulate sales by investing in business portfolio restructuring (including M&A) that includes fields adjacent to semiconductors and new businesses since these nonfinancial capital sources are diverse and can be deployed in a variety of businesses.

### Upgrade BS management from a long-term perspective through decision-making using EBITDA as a KPI

In terms of BS management supporting this series of initiatives, we will continue to focus on monitoring each business strategy through the introduction of EBITDA, introduction and penetration of ROIC and the ROIC tree, and maintaining appropriate levels of cash reserves while enhancing and diversifying our fundraising capability.

First, in terms of monitoring each business strategy through the introduction of EBITDA, as mentioned earlier, competition in development speed is intensifying every year, and hesitating on capital investment because of a fear of short-term increases in depreciation costs can lead to significant opportunity losses. Therefore, we are focusing on swift decision-making using EBITDA as the KPI. With respect to the discussion of cash allocation, EBITDA is also effectively functioning as an indicator that replaces cash in.

### Aiming for further effective utilization of all management capital by evolving ROIC activities

Regarding ROIC and the ROIC tree, penetration has progressed steadily through the awareness and education activities and e-learning that we have focused on for several years, and determining optimal cash reserves from a long-term perspective and ROIC activities to measure business strength, which seek to improve ROE are progressing simultaneously.

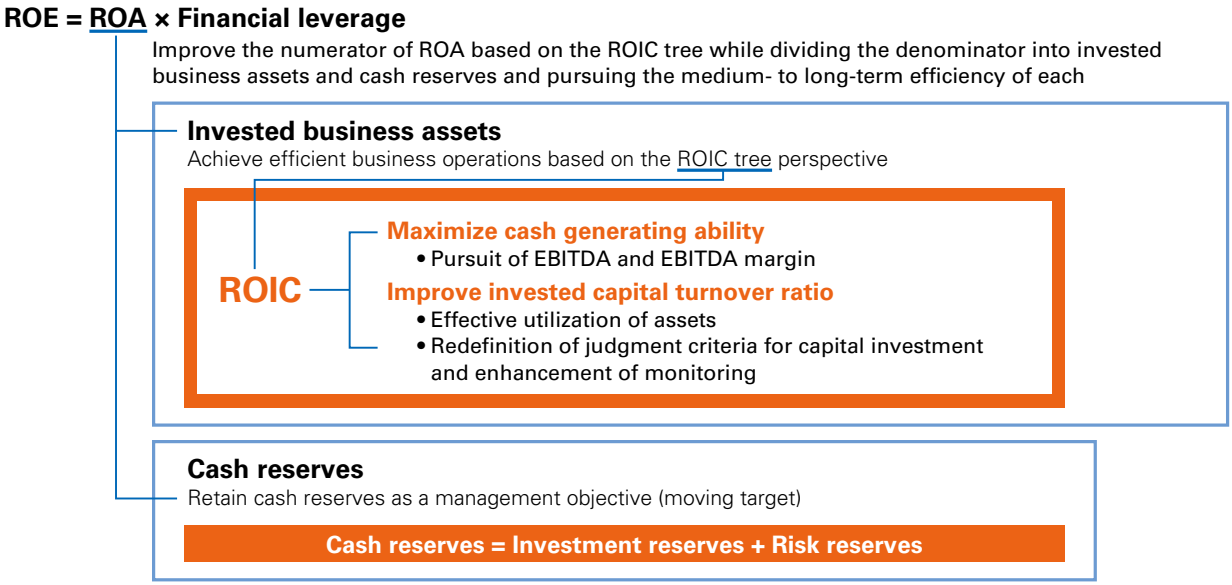
First, regarding the aforementioned cash reserves, since upgrading the ROE under TOK Vision 2030 in February this year, we will continue deep discussions with stakeholders about the level of cash reserves and how to hold them (net cash holdings and use of debt etc.) as expectations for our company from investors have further increased.

Next, regarding ROIC activities, we will continue to work on both the macro approach and bottom-up approach to strive to realize the optimal balance between maximizing earning capabilities and asset quality. Then, regarding the macro approach, we aim for all employees below the management level to become human capital who execute their duties while being aware of corporate value with not only current PL but also medium to long-term BS thinking by planning and executing roadmaps to achieve ROIC targets for each site from a

multifaceted perspective. And in the bottom-up approach, effective utilization of factory fixed assets and improvement of the cash conversion cycle (CCC) are progressing by focusing on on-site improvement activities and effective asset utilization activities for improving the components and KPIs of the ROIC reverse tree. While continuing to focus on this series of ROIC activities in the future, we will be careful not to fall into a shrinking equilibrium by adhering too closely to this indicator and will continue the monitoring and discussions for improvement regarding the ROIC of overseas bases.

Additionally, because large-scale decarbonization investments are expected to increase towards achieving the 2030 interim target in view of carbon neutrality by 2050, we will strengthen monitoring based on IRR and improve investment efficiency.

**Improve ROIC for better ROE to utilize management resources efficiently**




## Achievements and issues in the second year of TOK Medium-Term Plan 2024 and key measures for the final fiscal year onward

### In pursuit of trade-ons in the financial capital policy while risks and opportunities continue to maximize

TOK promoted large investments without delay based on the three-year cash flow plan that clearly demonstrated the intention of effectively using the earned cash in FY 2023/12 as the first year of TOK Medium-Term Plan 2024 by backcasting from TOK Vision 2030 and the new material issues. In formulating investment plans and allocations based on future cash flows, initiatives to formulate capital policies and funding plans to flexibly respond to immediate changes while maintaining a long-term perspective have permeated throughout the company.

On the other hand, I recognize the challenge of firmly continuing to hedge risks while improving capital efficiency so that tail risks like the Israel issue and Ukraine crisis and the rapid changes in the financial markets do not force our business to stagnate. If cash reserves are excessively reduced to improve capital efficiency, a certain impact on growth investments and recruitment of human capital cannot be avoided in the event of further geopolitical risks. Therefore, I recognize that realizing a trade-on between improving capital efficiency and strengthening response to tail risks is one of the most important themes in future financial capital strategy.

In FY 2024/12, which is the final fiscal year of the medium-term plan, I believe that securing increased working capital and increased production investments in the face of rapidly expanding sales of front-end process products centered on generative AI, funds for market development as back-end process stacking progresses, and expanding and securing mobility of financing scale accompanying M&A aimed at discontinuous growth will become increasingly important. I will continue to strive to secure optimal cash reserves and complete a system that can select the optimal from diverse financing means for future funding demand phases.

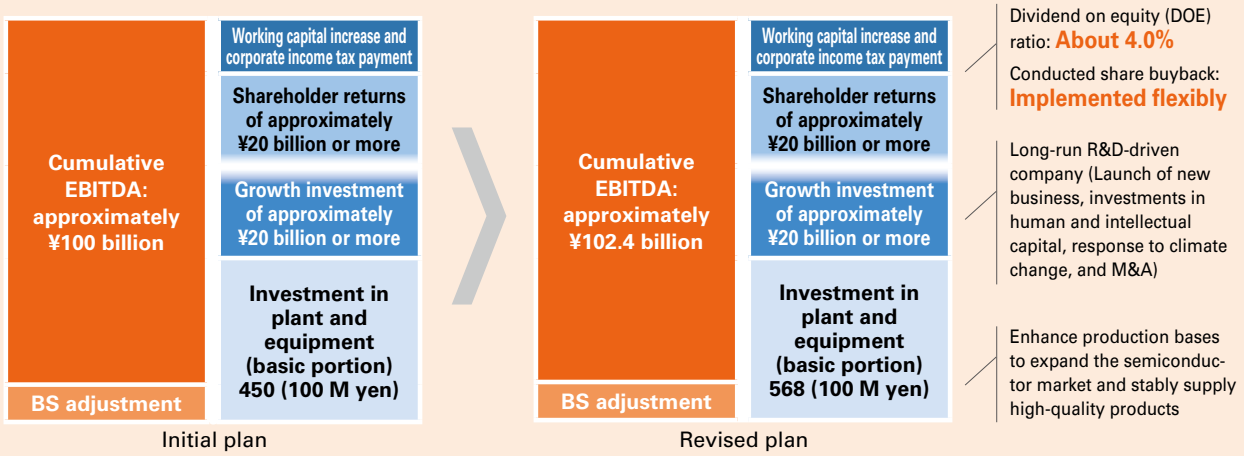
### Continue the DOE 4.0% policy as the largest trade-on in financial capital policy

TOK plans shareholder returns of about 20 billion yen or more over three years under the DOE 4.0% policy started from FY 2022/12 and the aforementioned cash allocation plan as explained above. Based on this plan, the cash dividend applicable to the year per share was increased by eight yen from the previous fiscal year to 168 yen for FY 2023/12, the highest dividend ever, and is expected to be 174 yen* for FY 2024/12, which will also be the highest ever.

* Pre-split conversion value

The DOE-based dividend policy has generally been well received by shareholders and investors. As described earlier,

**Revised the three-year cash flow plan based on the results of second year of the Medium-Term Plan**

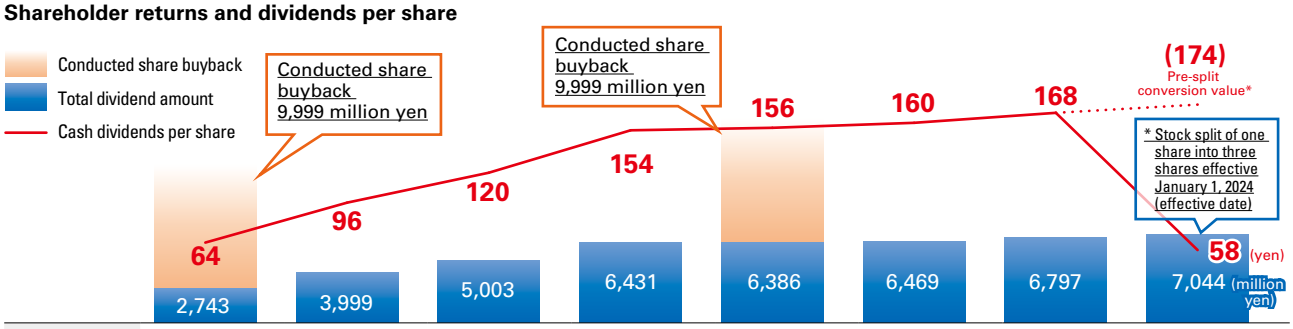



in FY 2024/12, which is the third year of the medium-term plan, we are planning the highest dividend ever and the largest capital investment ever. We recognize that we realize a virtuous cycle of enhancing corporate value by reinvesting acquired cash while achieving a trade-on between shareholder returns and growth investment. With conventional shareholder return policies based on the dividend payout ratio, there is a high possibility that increased depreciation costs associated with growth investments may manifest as factors that suppress profits and dividends. On the other hand, with the DOE policy based on net assets, the impairment of equity due to depreciation is limited, which makes it possible to steadily implement dividends with long-term cash flow. Therefore, we intend to continue realizing the trade-on between large-scale investment to keep winning in innovative semiconductor fields and shareholder returns that include long-term stable dividends through the DOE policy. The TOK also receives a variety of opinions concerning the buyback of shares from shareholders and investors. There is no change in the policy to optimize the necessary cash for sustainable growth under the cash reserve policy above in order to flexibly buy back shares.

### Strengthen tax affairs governance on a worldwide basis in anticipation of BEPS 2.0

The TOK Group will continue to emphasize tax payments as a means of providing returns to social and relational capital from TOK. The TOK Group will continue to fully understand taxation and tax customs, as well as product market conditions, in all regions where the Group does business, while maintaining an overview of tax affairs and identifying the requirements at each entity on a consolidated basis. At the same time, TOK will continue to formulate a transfer pricing policy based on the information above, incorporate the policy into the transfer pricing documents for Base Erosion and Profit Shifting (BEPS), and enhance training for group tax personnel in each country. In addition to these measures, TOK will focus on strengthening the governance of tax affairs on a worldwide basis in anticipation of BEPS 2.0 in cooperation with many stakeholders in Japan and overseas.

**Shareholder returns and dividends per share**




| Fiscal Term | 2017/12 | 2018/12 | 2019/12 | 2020/12 | 2021/12 | 2022/12 | 2023/12 | 2024/12 (Forecast) |
|---|---|---|---|---|---|---|---|---|
| Interim dividend | 32 yen | 36 yen | 60 yen | 60 yen | 62 yen | 78 yen | 82 yen | 29-yen forecast* |
| Year-end dividend | 32 yen | 60 yen | 60 yen | 64 yen | 94 yen | 82 yen | 86 yen | 29-yen forecast* |
| Special dividend | | | | 30 yen | | | | |
| Dividend policy numerical criteria | TOK Medium-Term Plan 2018 Consolidated payout ratio: 40% or more | | | TOK Medium-Term Plan 2021 Consolidated DOE 3.5% as a standard | | | TOK Medium-Term Plan 2024 Consolidated DOE 4.0% as a standard | |

# Medium-Term Plan—Review of the Past Two Medium-Term Plans

## TOK Medium-Term Plan 2018 —From FY 2017/3 to FY 2018/12—

After achieving record-high profits under the TOK Medium-Term Plan 2015 (at the time), TOK began to make proactive investments focused on strengthening the management foundation and reforming the business portfolios in order to gain momentum for the overarching aspiration for 2020 (operating income of ¥20 billion).

### Positioning/Management Objectives/Features

- Three key years for achieving the overarching aspiration
- Continued efforts to deepen existing business domains and swiftly launch new businesses
  - Continue proactive investments for the overarching aspiration
  - Aim for record-high profits during the final fiscal year
  - Aim for ROE of 7% or more and enhance returns to shareholders

### Company-Wide Strategy

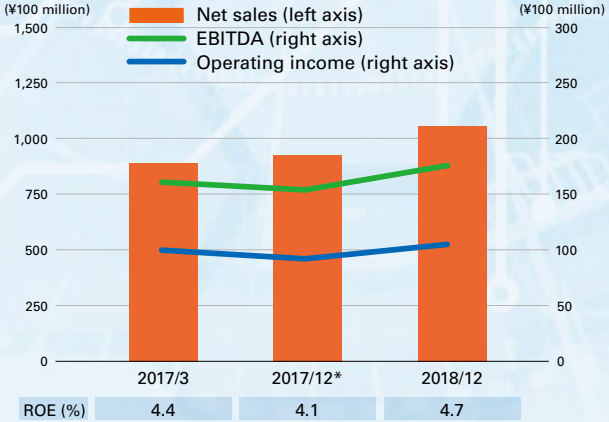
[Reform business portfolios]
- Renew mainstay products
- Create new businesses and new materials
- Recover earnings in the equipment segment and develop versatile applications for TSV technology

[Evolve customer-oriented strategies]
- Strengthen the development of ArF excimer laser photoresists (on a scale of 10 nm onward)
- Further increase the market share of KrF excimer laser photoresists (Thick-film photoresists for 3D-NAND)
- Strengthen the customer support structure in the Chinese market

[Promotion of global human capital development]
- Promote the development of core human capital from a Group-wide perspective and recruit and promote recruitment and assignment of diverse human capital appropriate for global business

[Strengthen the management foundation]
- Build a governance system that reduces the risks accompanying globalization and that raises corporate value

### TOK Medium-Term Plan 2018




| | 2017/3 | 2017/12* | 2018/12 |
|---|---|---|---|
| ROE (%) | 4.4 | 4.1 | 4.7 |

* Because of the change in the fiscal year-end, the fiscal year that ended December 31, 2017, was an irregular nine-month period in Japan and 12 months overseas.

### Results/Issues

- Strengthened R&D and production bases
  Invested ¥21.7 billion in plants and equipment


TOK Taiwan Co., Ltd.


Sagami Operation Center (current TOK Technology and Innovation Center)/New R&D Building

- Leveraged strengths in the innovative semiconductor segment

**EUV photoresists:** Highly evaluated by major customers
**KrF excimer laser photoresists:** Adoption for 3D-NAND (Japan and Asia) / Increasing demand accompanying the expansion of 3D-NAND mass production (Japan, Asia)
**High-density integration materials:** Adoption for FOWLP (semiconductor field) by a major customer / Adoption by customers in Japan and overseas resulting in expanded adoption and application (electronic components field)
**High-purity chemicals:** Expanded adoption for the next-generation process by a major customer (Asia) / Adoption and increased demand for clean new solutions (Asia and North America)

- Midway through Reform of the Business Portfolios

**ArF excimer laser photoresists:** A major customer did not adopt our product (Asia) and delays in the production plans of major customers (Asia and North America)
**Equipment Business:** Delayed expansion of 3D packaging process market
**New businesses:** Delay in commercializing focused themes (high-functional films and nanoimprints)

**Key Investments in Plants and Equipment under the TOK Medium-Term Plan 2018**




### Aggregate market value (including treasury stock)



# TOK Medium-Term Plan 2021 —From FY 2019/12 to FY 2021/12—

The TOK Medium-Term Plan 2021 started in 2019. Although revenue decreased because of U.S.-China trade friction in FY 2019/12, TOK achieved record-high performance for two consecutive years that had been supported by strong semiconductor demand in FY 2020/12 and FY 2021/12.

**Management Vision** Aim to be a globally trusted corporate group by inspiring customers with high value-added products that offer satisfying features, low prices, and superior quality.

**Company-Wide Goal (Qualitative Objective)** Cultivate niche markets that the TOK Group should develop.

## Features

### Strengthen business portfolio reforms

- Ambitiously develop the technologies required for 5G, IoT, and Innovation

### Returned to a growth trajectory

- Operating income target (FY 2021/12): ¥15.0–20.5 billion

### Strengthen balance sheet management and introduce a new dividend policy

- A new dividend policy targeting a DOE of 3.5%
- Flexibly buy back shares as a means of returning profits to shareholders

## Company-Wide Strategies

**[Accurately identify and rapidly address the opinions of customers to build an even larger and stronger pipeline to those customers]**

■ Rapidly and steadily work to develop a support structure along with R&D thoroughly focused on customer satisfaction.

**[Strengthen marketing, increase the understanding of the customers' value creation processes, and translate these efforts into new value creation]**

■ Through rigorous marketing, TOK will carefully identify solutions that lead to the creation of new value for customers, and intensively and proactively address any concerns.

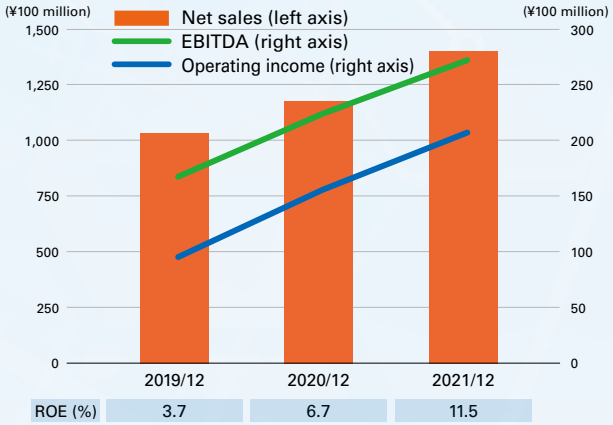
**[Strengthen human capital who can do research, make decisions, and take the initiative]**

■ Strengthen human capital who pursue the possibility of business with a diverse range of customers and continue addressing challenges until they succeed.

**[Strengthen the TOK management foundation]**

■ Focus on further sophisticating Group management, improving corporate governance, and promoting balance sheet management to utilize management resources more efficiently.

## TOK Medium-Term Plan 2021




| | 2019/12 | 2020/12 | 2021/12 |
|---|---|---|---|
| ROE (%) | 3.7 | 6.7 | 11.5 |

## Results

### Achieved record-high performance for two consecutive years

Returned to a growth trajectory

### Leveraged strengths in the innovative semiconductor segment

**ArF/EUV photoresists:** Expanded adoption by major customers and increased production / Acquired a higher market share with major customers

**KrF excimer laser photoresists:** Increased demand for thick-film photoresists for 3D-NAND / Increased demand in Asia

**i-Line photoresists:** Achieved growth for power semiconductors / automotive semiconductors supported by decarbonization and EV shift

**High-density integration materials:** Acquired the adoption of resists for innovative packages and increased demand in OSAT / Expanded adoption of MEMS materials by customers in Japan and other countries

**High-purity chemicals:** Increased demand based on strong semiconductor production in Asia / Increased demand for new clean solutions in North America

### Strengthened R&D and production bases especially overseas

Made capital investment of ¥28.3 billion



Sagami Operation Center (current TOK Technology Innovation Center)/ New R&D Building

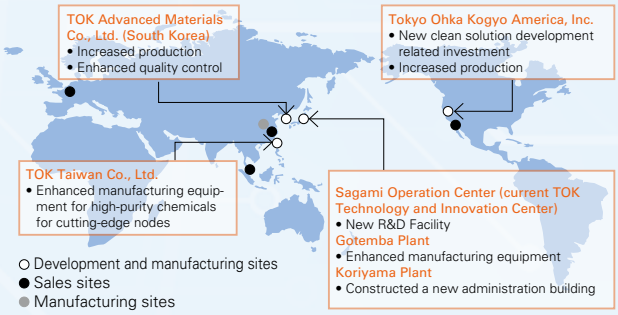


TOK Taiwan Co., Ltd.

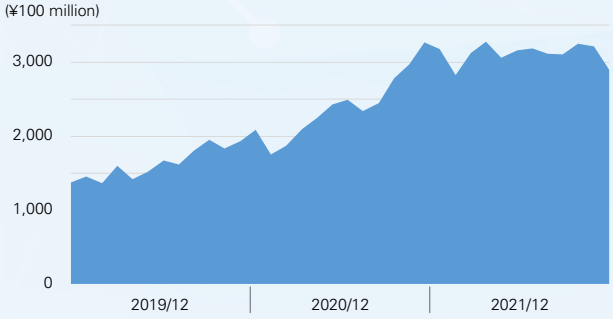


TOK Advanced Materials Co., Ltd. (South Korea)

### Key Investments in Plants and Equipment under the TOK Medium-Term Plan 2021




## Aggregate market value trend (including treasury stock)



# TOK Medium-Term Plan 2024 & TOK Vision 2030

## TOK Medium-Term Plan 2024—From FY 2022/12 to FY 2024/12—

The TOK Medium-Term Plan 2024 is the first medium-term plan formulated via backcasting from the TOK Vision 2030 and presents milestones to be accomplished.
TOK will establish a solid basis to achieve the vision by employing five strategies that will lead to the next medium-term plan.

### Features

- Medium-term plan for attaining TOK Vision 2030
- "Boost up TOK!!" toward 2030

### Performance targets (FY 2024/12)

| | |
|---|---|
| Consolidated net sales | ¥180 billion or more |
| Consolidated operating income | ¥27 billion or more |
| EBITD | ¥35 billion or more |
| ROD | Maintain 8.0% or more |

### Medium-term plan strategies

[1] Increase global market shares of cutting-edge photoresists
**(→ See pages 34–39 and 57)**

[2] Acquire and create core technologies for electronic materials and new fields
**(→ See page 59)**

[3] Secure stable supplies of high-quality products and establish an optimal production system for the Group.
**(→ See page 74)**

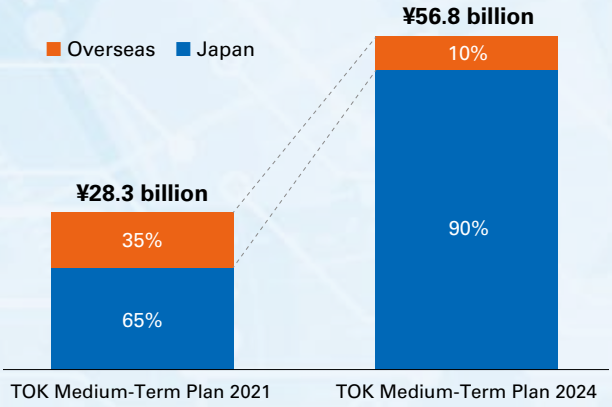
[4] Improve employee engagement and promote people-oriented management
**(→ See pages 61–65)**

[5] Establish a sound and efficient management foundation
**(→ See pages 40–43, 60, and 93–97)**

### Capital investment plan

[Record-high capital investment plan]

■ To strengthen the supply chain, proactively invest capital in Japan

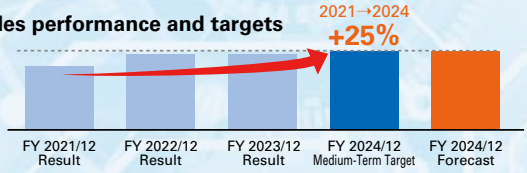



### Business strategies

[1] Photoresists for semiconductor front-end processes

■ Expand sales with a full portfolio in response to the increasing semiconductor demand

**Sales performance and targets**




[2] Materials for semiconductor back-end processes

■ Rapidly develop products for cutting-edge packaging technologies

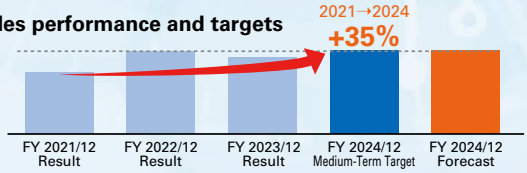
**Sales performance and targets**




[3] High-purity chemicals

■ Expand sales in Asia and North America in response to the sophistication of semiconductor processes and increasing demand

**Sales performance and targets**

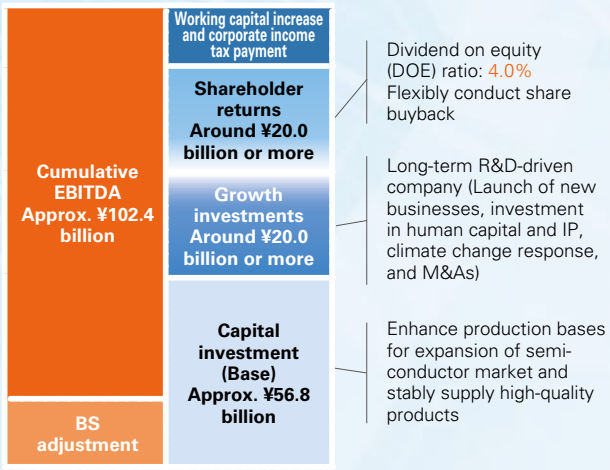



### Promote balance sheet management

[Pursue an optimal balance among investment, cash reserves, and shareholder returns]

■ EBITDA generated through the growth of semiconductor materials will be smoothly distributed as shareholder returns after making prioritized growth investments.

**Three-year cash flow plan (landing zone image)***




* Calculated based on figures announced on February 13, 2024

# TOK Vision 2030

## Management Vision

"The e-Material Global Company™" contributing to a sustainable future through Chemistry

## Thoughts embodied in the Management Vision

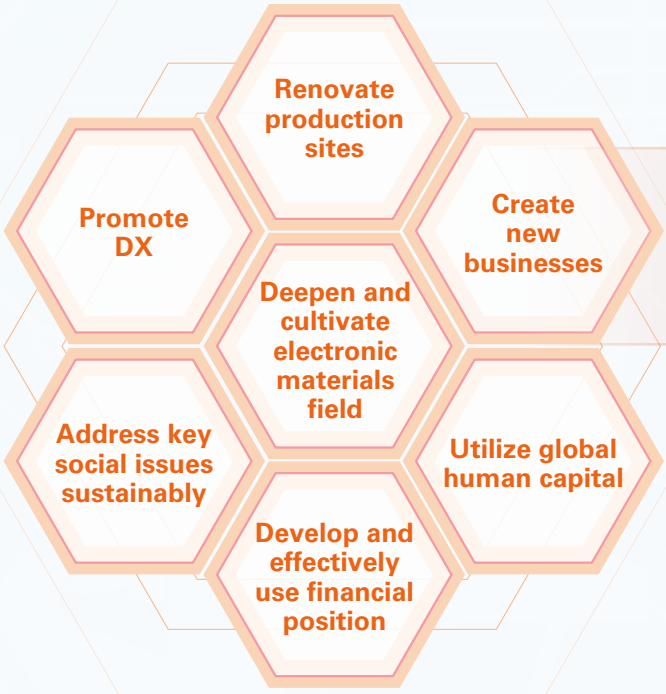
The Management Vision incorporates five thoughts: *contributing to the SDGs, customer-oriented perspective, elevating chemical technology to further heights, global growth, and becoming a unique company in the electronic materials field.*

**Back-casting**

**Initial**
**(formulated in August 2020)**
Net sales: **¥200.0 billion**
EBITDA: **¥45.0 billion**
ROE: **10% or higher**

**After upward revision**
**(revised in February 2024)**
Net sales: **¥350.0 billion**
EBITDA: **¥77.0 billion**
ROE: **13%**

- Provide new innovations that inspires customers
- Earn trust from stakeholders worldwide
- Continue developing high technological capabilities and show international presence
- Enhance corporate value sustainably with the aim to contribute to SDGs
- All employees can work lively with pride




**Seven strategies**
**toward 2030**

**Pass on to a 100-year company**

# Background to TOK Vision 2030 Upward Revision and Targeted Business Portfolio

## Sophistication and diversification of social and scientific challenges

—Expansion of semiconductor application areas—

Since August 2020 when TOK Vision 2030 was formulated, society has changed significantly because of the expansion of infectious disease and climate change risks, in addition to the labor shortages caused by declining birthrates and an aging population. As social and scientific challenges diversify and become more sophisticated, semiconductors continue to expand their areas of application by contributing to the resolution of these issues and by creating innovations.



Rise of generative AI


Progress of industrial digitalization


Full-scale spread of digital currencies


Popularization of electric vehicles



Advent of Web 3.0


Circular economy


Transactions in metaverse economic zone



Launch of 6G


Acceleration of space development

## Market growth to an unprecedented scale

—Increased construction of semiconductor production systems progresses worldwide—

Because of the expansion of application areas and the increasing importance as strategic materials in a variety of different countries, as well as the increase in data communication volume, the semiconductor industry is in a long-term growth trend and is maintaining an unprecedented scale while construction of new semiconductor factories is progressing worldwide **(→ see page 35 "Message from the President")**.

**Forecast by 2030 due to global digitalization and IT evolution**

**[Data communication volume]**

**Up to about 10 times compared to 2020, CAGR 32%**[*1]

**Forecast in the semiconductor industry by 2030**

**[Market size]**

**About 1 trillion dollars (1.9 times compared to 2023, CAGR 10%)**[*2]

**[Investment scale]**

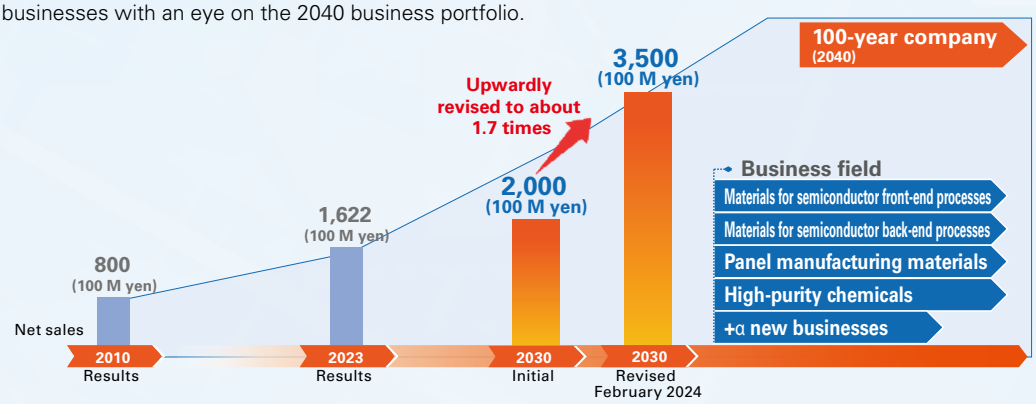
**139 factories, about 170 trillion yen**[*3]

*1 Source: *Nokia Global Network Traffic 2030 Report*
*2 Source: SEMI
*3 According to our company's research

## Target business portfolio by 2030

—With a view to developing as a 100-year company in 2040—

Toward achieving sales of 350 billion yen by 2030, Tokyo Ohka Kogyo will steadily expand existing businesses in materials for semiconductor front-end and back-end processes, display materials, and high-purity chemicals, while considering M&A as one option for creating new businesses with an eye on the 2040 business portfolio.



## Our Material Issues

# Initiatives to Address Material Issues for Enhancing Corporate Value

050 Material Issues / Key Initiatives, Risks and Objectives, and List of Objectives
054 Message from the Director of Marketing and Development
059 Message from the Director of Research and Development of New Businesses
060 Message from the Executive Officer of DX
061 Message from the Executive Officer of Human Capital
066 Material Issues Roundtable Discussion
072 Message from the Director of the Environment
076 TCFD-based Information Disclosure for Climate Change
078 Messages from Outside Directors
082 Directors and Executive Officers
084 Corporate Governance
100 Global Environmental Conservation Considering Future Generations
110 Supply Chain Sustainability

# Material Issues / Key Initiatives, Risks and Objectives, and List of Objectives

| Material issues | SDGs to which we contribute | ESG fields | Key initiatives | Risks and opportunities | Issues, qualitative objectives, and KPIs for FY 2023/12 |
|---|---|---|---|---|---|
| Contribution to innovation and the creation of social value |  | Social (S) | Increase global market share of cutting-edge photoresists | ■ Intensification of global competition in the semiconductor industry and increased strategic importance<br>■ Response to geopolitical risks and supply chain disruptions, and creation of new business opportunities<br>■ Expansion of the role of semiconductors in innovation and the resolution of social issues<br>■ Increase in power consumption due to the spread of generative AI and rising demand for new energy-efficient semiconductors<br>■ Increasingly complex silicon cycle<br>■ Technological advances and market expansion in cutting-edge fields, both in the miniaturization and in the 3D packaging of semiconductors; expansion of applications for older generations (legacy fields) | ■ Provide technologies, quality, environment, and added value that contribute to the value creation process of customers<br>■ Continue development and improvement from a thoroughly customer-oriented perspective<br>■ Ambitiously develop the technologies required for 5G, IoT, and other innovations |
| | | | Acquire and create core technologies in electronic materials and new fields | ■ Expansion of applications and social need for semiconductor technologies (such as life science-related materials, functional materials, and optical materials)<br>■ Risk reduction and long-term stable growth through the diversification of the business and regional portfolios and multiplication of the target markets | ■ Continue to develop and strengthen commercial viability in new business fields (high-functional films, life science-related materials, and optical materials)<br>■ Expand collaborative projects with other companies and groups |
| | | | Secure a stable supply of high-quality products and establish an optimal production system for the Group | ■ Increase in the need for further advances, complexity, and ultra-high purification of semiconductor materials<br>■ Mixed presence of fields with a tight supply and fields with an oversupply in the semiconductor market | ■ Improve detection sensitivity for metal impurities in compliance with customer development roadmaps<br>■ Create new value through DX (material development utilizing materials informatics and shift to smart factories) |
| Pursuit of happiness by human capital |  | | Improve employee engagement and promote people-oriented management | ■ Intensification of cross-border competition for recruitment of human capital in semiconductor-related industries<br>■ Global human capital development in conjunction with the increase in the overseas sales ratio<br>■ Increase in the importance of the happiness of employees and society (well-being) | [2024 targets]<br>■ Employee engagement: Improve by three points (vs. 2021)<br>■ Employee-friendly environment: Improve by seven points (vs. 2021)<br>■ Continue promoting a good work-life balance<br>■ Childcare leave user rate among male employees: Maintain at 30% or more<br>■ Flex time expanded to more departments and work from home introduced as an official system<br>■ Introduce a new personnel system and appropriately establish and operate the system<br>■ Continue to implement training for department heads<br>■ Promote health and productivity management |
| | | | Diversity, equity, and inclusion | ■ Creation of innovation and increase in competitiveness by leveraging diverse human capital<br>■ Aging of employees and use of "know-why" of senior human capital | ■ Continue to promote corporate activities that leverage diversity<br>■ Promote human capital exchanges within the Group<br>■ Continue to promote women in the workplace<br>■ Implement training for female employees pursuing management positions<br>■ Ratio of women in senior and middle management: Aim to increase to twice the level by 2030 (vs. 2020) |
| | | | Respect for human rights and fair working conditions | ■ Constraints on human mobility due to rising geopolitical risks | ■ Continue efforts to prevent harassment<br>■ Implement human rights education |
| Establishment of resilient organization |  | Governance (G) | Build a sound, efficient management foundation | ■ Increase in the potential risks involved in business growth and the increase of stakeholders<br>■ Rapid changes in the business environment in the era of VUCA | ■ Streamline operation of the Information Management Committee<br>■ Strengthen cybersecurity measures |
| | | | Strengthen the effectiveness of governance | ■ Increase in sustainability requirements in governance<br>■ Upgrading of supervisory and control functions to directly link business growth to the enhancement of corporate value | ■ Continue to thoroughly operate the PDCA cycle to improve the effectiveness of the Board of Directors (assess effectiveness once a year)<br>■ Enhance internal control functions<br>■ Continue to check the approval authority and approval request operations<br>■ Establish new CSR and sustainability governance structures<br>■ Review the manufacturing transfer process and the OEM process<br>■ Establish a risk transfer analysis process |
| | | | Compliance | ■ More stringent laws and regulations (ordinances) based on global initiatives for sustainability and decarbonization<br>■ Maintenance and enhancement of social trust and brand power in local communities overseas | ■ Continue activities to instill compliance<br>■ Continue periodic checks of laws and regulations (four times annually) and review the list of applicable laws and legal management procedures<br>■ Continue the appropriate operation of the internal reporting system<br>■ Further enhance and disseminate the whistleblowing system |
| | | | Risk management | ■ Increase in tail risks that include pandemics and extremely severe natural disasters<br>■ Strengthening of risk resilience to continuously fulfill the supplier's responsibility | ■ Reduce risks previously and newly identified through risk assessments<br>■ Continue to hold drills to increase awareness with the aim of maintaining a high response rate<br>■ Conduct desktop drills anticipating actual damage |

[Self-assessment of goal achievement]
○ Undertook and achieved results
△ Implemented with room for further accomplishments
X Did not undertake nor achieve yet

| | Main achievements, progress, and KPI in FY 2023/12 | Evaluation | Issues, qualitative objectives, and KPIs for FY 2024/12 | Pages |
|---|---|---|---|---|
| | ■ Consolidated net sales: Decreased by 7.5% year over year due to a market downturn (<Semiconductor market: 8.2% decrease year over year*) * Source: World Semiconductor Trade Statistics (WSTS)<br>■ Suppressed the decrease in sales by improving market share in advanced photoresists | ○ | ■ Provide technologies, quality, environment, and added value that contribute to the value creation process of customers<br>■ Continue development and improvement from a thoroughly customer-oriented perspective<br>■ Ambitiously develop the technologies required for 5G, IoT, and other innovations | P4–5<br>P54–58 |
| | ■ Number of collaborative projects promoted with other companies and groups: Increased by approximately 14% year over year | ○ | ■ Continue to develop and strengthen commercial viability in new business fields (high-functional films, life science-related materials, and optical materials)<br>■ Expand collaborative projects with other companies and groups | P31<br>P59 |
| | ■ Improve detection sensitivity for metal impurities that comply with customer development roadmaps<br>■ Promote sophistication of development work through automation of material data and experimental result accumulation<br>■ Sequentially deploy advanced production systems at new factories | ○ | ■ Improve detection sensitivity for metal impurities that comply with customer development roadmaps<br>■ Create new value through DX (material development utilizing materials informatics / shift to smart factories) | P8–9<br>P54–58<br>P60<br>P74 |
| | ■ Employee engagement: Declined by two points (vs. 2021)<br>Employee-friendly environment: Improved by two points (vs. 2021)<br>■ Ratio of paid leave taken: 87.1%*1<br>■ Increased childcare leave taken (male employees: 12 in 2022 to 24 in 2023 with the user rate increasing to 66.7%)<br>■ Introduced new award system TOK Shinka Award<br>■ Considered the introduction of retirement age extension and internal job posting system<br>■ Introduced e-learning system allowing Web-based training according to individual needs<br>■ Provided management education and 360-degree evaluations of division heads<br>■ Conducted career training for managers and planned career training for middle-senior layer (45–54 years old)<br>■ Continued implementation of health management promotion activities | △ | ■ Employee engagement: Achieve objective for 2024: Improve by three points (vs. 2021)<br>■ Employee-friendly environment: Achieve objective for 2024: Improve by seven points (vs. 2021)<br>■ Maintain childcare leave user rate among male employees<br>■ Introduction of retirement age extension system: Aiming for introduction by January 2025<br>■ Introduction of internal job posting system: Aiming for introduction by January 2025 | P61–65 |
| | ■ Measured job value in positions across the entire group<br>■ Ratio of non-Japanese employees: 24.3%<br>■ Ratio of local hires in overseas management positions (consolidated basis): 56.3% | △ | ■ Establish a foundation to promote human capital exchanges within the Group<br>■ Design systems to promote human capital exchanges based on job value | P61–65 |
| | ■ Held two career roundtable discussions for female employees targeting students in August<br>■ Ratio of women in senior and middle management: 4.5% (vs. 3.2% in 2020) *1<br>■ Ratio of female new graduates hired: 22.4%*1 | △ | ■ Plan to hold panel discussions and seminars to enhance the attractiveness of managerial positions for potential managerial candidates<br>■ Continue career path seminars for female employees targeting students | P64–65 |
| | ■ Implement anti-harassment and human rights education | ○ | ■ Continue efforts to prevent harassment<br>■ Implement human rights education | P74–75<br>P97 |
| | ■ Reviewed information security standards in line with the introduction of new technologies and new systems, such as AI<br>■ Considered introducing security systems to strengthen cybersecurity and conduct desktop drills assuming actual cyber incidents | ○ | ■ Continue strengthening of cybersecurity measures and review internal leakage countermeasures | P95–96 |
| | ■ Shifted to a company with an Audit and Supervisory Committee<br>■ Deepened discussions on company-wide managerial requirements<br>■ Checked progress of resolved matters<br>■ Checked the approval authority and approval request operations | ○ | ■ Continue to thoroughly implement the PDCA cycle to improve the effectiveness of the Board of Directors (assess effectiveness once a year) | P84–99 |
| | * From May 1, 2024, began establishment and operation of OEM flow including overseas subsidiaries<br>■ Collected information and considered risk management systems to unify and visualize risk management | ○ | ■ Identify and grasp group-wide issues related to governance, risk, and compliance<br>■ Develop a rational and effective risk management system by reviewing risk management methods in parallel with consideration of the introduction of a risk management system | P93–95 |
| | ■ Conducted compliance education and explain compliance in CSR education<br>■ Raiseed awareness of compliance (caution regarding drinking alcohol and reporting when receiving entertainment or gifts)<br>■ Reviseed and disseminated the CSR Policy Handbook<br>■ Performed checks on compliance with laws and regulations (four times annually), and reviewed the list of applicable laws and legal management procedures | ○ | ■ Continue activities to instill compliance<br>■ Regular review and dissemination of CSR Policy Handbook<br>■ Continue periodic checks of laws and regulations (four times annually) and review the list of applicable laws and legal management procedures | P93–95 |
| | ■ Reports to the whistleblowing system: 4<br>Consultations with other counseling sections: 19<br>■ Started operation of internal reporting procedure manual, built storage system for internal reporting response records<br>■ Provided education for whistleblowing response personnel and explain the internal reporting system through in-house education | ○ | ■ Continue the appropriate operation of the internal reporting system<br>■ Further enhance the internal reporting system and promote awareness and penetration of the internal reporting system and whistleblowing system | P94 |
| | ■ Extracted 13 risks that include the technological innovation risk as major risks for the TOK Group and respond intensively<br>■ Discussed at the Board of Directors for creating a specialized department to control company-wide risks<br>■ Conducted regular drills and achieved high response rates<br>■ Conducted desktop drills assuming earthquake fires at the Utsunomiya plant | ○ | ■ Continuation of major risk reduction activities under the leadership of the newly established ERM Department<br>■ Build a system to confirm employee safety status within 24 hours and confirm effectiveness through drills and other means<br>■ Expand desktop drills assuming actual damage considering risks specific to each site | P94–96 |

*1 Unconsolidated

# Material Issues / Key Initiatives, Risks and Objectives, and List of Objectives

| Material issues | SDGs to which we contribute | ESG fields | Key initiatives | Risks and opportunities | Issues, qualitative objectives, and KPIs for FY 2023/12 | |
|---|---|---|---|---|---|---|
| Global environmental conservation considering future generations |  | Environment (E) | Initiatives toward achieving carbon neutrality | ■ Cost increase for responding to carbon pricing introduction and policies/laws and regulations<br>■ Cost increase for process/product temperature management, water stress, and water procurement difficulties due to rising temperatures<br>■ Contribution to lower power consumption of semiconductors through miniaturization<br>■ Rising demand for power semiconductors | Develop, manufacture, and market environment-friendly products | ■ Stably supply i-Line photoresists for power semiconductors<br>■ Increase sales of plasma ashing systems for power semiconductors |
| | | | | | Proactive response to new environmental regulations | ■ Start full-scale operation of a comprehensive management system for environment-related data |
| | | | | | Proactive disclosure of environmental information | ■ Proactive information disclosure through the *Integrated Report* and on the website |
| | | | | | Improve energy-related $CO_2$ emissions per base unit*<br>[Medium-term target] Reduce energy-related $CO_2$ emissions (per base unit) by 15 points by 2030 compared with 2019 | ■ Reduce energy-related $CO_2$ emissions (per base unit) by 15 points by 2030 compared to 2019 |
| | | | | | | ■ Reduce energy-related $CO_2$ emissions (per base unit) by 1 point compared with the previous year |
| | | | | | Improve energy consumption per base unit*<br>[Medium-term target] Reduce energy consumption (per base unit) by 15 points by 2030 compared with 2019 | ■ Reduce energy consumption (per base unit) by 15 points by 2030 compared with 2019 |
| | | | | | | ■ Reduce energy consumption (per base unit) by 1 point compared with the previous year<br>■ Measures against the aging of equipment and the introduction of new energy conservation systems |
| | | | | | Improve energy consumption per base unit in distribution* | ■ Reduce energy consumption (per base unit) by 1 point or more compared with the previous year<br>■ Achieve efficient transportation by improving the loading rates of vehicles |
| | | | | | Measures to prevent global warming at overseas manufacturing sites | ■ Promote production activities considering energy conservation |
| | | | Promote resource recycling | ■ Increase in interest in the marine plastics issue<br>■ Expansion of a circular economy | Initiatives to address water risk* | ■ Reduce water consumption by renewing equipment<br>■ Promote the cyclic use of water |
| | | | | | | ■ Reduce water consumption in Japan by 15% by 2030 compared with 2019<br>■ Continue measures against flood risks |
| | | | | | Reduce industrial waste*<br>[Medium-term target] Reduce (per base unit) by 15 points by 2030 compared with 2019 | ■ Reduce (per base unit) by 15 points by 2030 compared with 2019 |
| | | | | | | ■ Industrial waste disposed in landfills: Less than 1%, achieving zero emissions |
| | | | Conserve air, water, and soil environments | ■ Tighter emissions regulations in major developed countries<br>■ Further risk reduction by satisfying standards stricter than the regulatory requirements | Prevent Air, water, and soil pollution | ■ Excess of operational thresholds: None |
| | | | | | Countermeasures against ozone-depleting substances | ■ Manage CFC leakage volume through the proper management of equipment<br>■ Examine the introduction of non-CFC equipment when renewing facilities |
| | | | | | Eradicate environmental accidents that affect external parties | ■ Environmental accidents: No major accidents |
| | | | Preserve biodiversity | ■ Increased risk of global biodiversity loss<br>■ Risk reduction through initiatives addressing biodiversity and water resources as a single issue | Improve awareness of biodiversity based on TOK Biodiversity Protection Declaration and encourage participation in related activities | ■ Implement ongoing employee training<br>■ Continue activities to preserve forests |
| Supply chain sustainability |  | | Precisely address laws and regulations | ■ Tighter chemical substance control regulations in major developed countries<br>■ Increased product value by taking thorough action prior to legislation from before and during the early stages of material development | Carry out appropriate and reliable management of chemical substances | ■ Establish chemical substance information management system<br>■ Strengthen chemical substance management system of the TOK Group |
| | | | | | Properly comply with the PCB Special Measures Act | ■ Formulate and promote equipment renewal plan based on the roadmap toward the deadline of the disposal of PCB waste (low concentration) in 2027 |
| |  | Social (S) | Occupational health and safety/ Reduction of risks posed by chemical substances | ■ Increased risks of accidents due to the increase in production sites, production volume, and operating hours<br>■ Escalating human rights risks resulting from expanding the supply chain and increasing the importance of lifecycle assessment<br>■ Further risk reduction through RBA audits and ISO 45001 certification | Foster a safety culture | ■ Completed the acquisition of ISO 45001 certification at all sites in Japan<br>■ Setting 5S activities in place |
| | | | | | | ■ Strengthening risk management with safety first |
| | | | | | | ■ Strengthen emergency response drills |
| | | | | | | ■ Achieved zero accidents resulting in lost workdays |

[Self-assessment of goal achievement]
○ Undertook and achieved results
△ Implemented with room for further accomplishments
X Did not undertake nor achieve yet

| | Main achievements, progress, and KPI in FY 2023/12 | Evaluation | Issues, qualitative objectives, and KPIs for FY 2024/12 | Pages |
|---|---|---|---|---|
| | ■ Stably supply i-Line photoresists for power semiconductors<br>* Regarding plasma ashing systems for power semiconductors, the related business was transferred to Aimechatec Co., Ltd., in March 2023 | ○ | ■ Stably supply and increase sales of i-Line photoresists for power semiconductors | P17<br>P54–58<br>P73<br>P76–77 |
| | ■ Start full-scale operation of a comprehensive management system for environment-related data | ○ | ■ Reliable operation of a comprehensive management system for environment-related data | P72<br>P100–109 |
| | ■ Proactive information disclosure<br>Publish the *Integrated Report* and disclose environmental information on the website | ○ | ■ Proactive information disclosure<br>Publish the *Integrated Report* and disclose environmental information on the website | P30–31 |
| | ■ Reduced energy-related $CO_2$ emissions (per base unit) by 72 points compared with 2019 | ○ | ■ [New interim target] 30% reduction compared with 2019 (Group's emissions) by 2030 | P76–77<br>P102–103 |
| | ■ Reduced energy-related $CO_2$ emissions (per base unit) by 35 points compared with 2022 | ○ | ■ [New interim target] 30% reduction compared with 2019 (Group's emissions) by 2030 | P76–77<br>P102–103 |
| | ■ Reduced energy consumption (per base unit) by 15 points compared to 2019 | ○ | ■ Reduce energy consumption (per base unit) by 15 points by 2030 compared with 2019 | P102–103 |
| | ■ Increased energy consumption (per base unit) by 6 points compared with 2022 | X | ■ Reduce energy consumption (per base unit) by 1 point compared with the previous year<br>■ Measures against the aging of equipment and the introduction of new energy conservation systems | P102–103 |
| | ■ Increased energy consumption (per base unit) by 4 points compared with 2022 | △ | ■ Reduce energy consumption (per base unit) by 1 point or more compared with the previous year<br>■ Achieve efficient transportation by improving the loading rates of vehicles and visualizing transportation | P102–103 |
| | ■ Renewed equipment considering energy conservation | ○ | ■ Promote production activities considering energy conservation | P103 |
| | ■ Proposed and implemented plans at each site<br>Example: Full-scale operation of pure water production building (Koriyama)/Introduction of new circulation cooling equipment (Utsunomiya)/Improvement of water circulation rate of existing cooling equipment (Aso) | △ | ■ Reduce water consumption by renewing equipment<br>■ Promote the cyclic use of water | P104–105 |
| | ■ Water consumption in Japan: Increased by 7.1% compared with 2019 *Decreased by 12.3% (year over year)<br>■ Continued measures against flood risks | X | ■ Reduce water consumption in Japan by 15% by 2030 compared with 2019<br>■ Continue measures against flood risks | P104–105 |
| | ■ Industrial waste generation (per base unit): Increased by 19 points compared with 2019 | X | ■ Reduce (per base unit) by 15 points by 2030 compared with 2019 | P106–107 |
| | ■ Industrial waste disposed of in landfills: Less than 1%<br>Achieved zero emissions for 10 consecutive years | ○ | ■ Industrial waste disposed of in landfills: Less than 1%, achieving zero emissions | P106–107 |
| | ■ Excess of operational thresholds: None | ○ | ■ Excess of operational thresholds: None | P108–109 |
| | ■ Managed CFC leakage volume through the proper management of equipment<br>■ Examined the introduction of non-CFC equipment when renewing facilities | ○ | ■ Manage CFC leakage volume through the proper management of equipment<br>■ Examine the introduction of non-CFC equipment when renewing facilities | P109 |
| | ■ Environmental accidents: No major accidents | ○ | ■ Environmental accidents: No major accidents | P108–109 |
| | ■ Implemented CSR training for employees as well as all directors and auditors (100% participation rate)<br>■ Dispatched employees to participate in activities at the Kanagawa Trust Midori Foundation | ○ | ■ Implement ongoing employee training<br>■ Continue activities to preserve forests | P108–109 |
| | ■ Consideration of modification and expansion of a chemical substance information management system<br>■ Revisioned and started of operation of Chemical Management Standards | ○ | ■ Established chemical substance information management system<br>■ Strengthen chemical substance management system of the TOK Group | P110–114 |
| | ■ Formulated equipment renewal plan based on the roadmap toward the deadline of the disposal of PCB waste (low concentration) in 2027 | ○ | ■ Formulate and promote equipment renewal plan based on the roadmap toward the deadline of the disposal of PCB waste (low concentration) in 2027 | P110–114 |
| | ■ Completed the acquisition of ISO 45001 certification at all sites in Japan<br>■ Implemented 5S activities at each site | ○ | ■ Establish autonomous 5S activities | P113–114 |
| | ■ Conducted safety inspections at all sites including overseas | △ | ■ Eliminate workplace accident occurrence risks | |
| | ■ Conducted emergency response drills with changed scenario assumptions | △ | ■ Strengthen emergency response drills for various emergencies | |
| | ■ One accident with lost workdays and 13 accidents without lost workdays | X | ■ Achieved zero accidents resulting in lost workdays | P113–114 |

* Unconsolidated basis and consolidated subsidiaries in Japan

# Message from the Director of Marketing and Development

## We will continue to evolve our efforts toward the material issue of "Contribution to innovation and the creation of social value" to further strengthen our long-term growth potential.




**Kosuke Doi**

*Director, Senior Managing Executive Officer, Division Manager, Marketing Division and Research and Development Division*


### Toward enhancing sustainable corporate value

**Enhancing the further integration and expansion of mutual interaction between sales and development human capital, we are refining our common goals**

Based on the TOK purpose of "Contributing to a sustainable future through chemistry," we are dedicated to addressing the material issue of our "Contribution to innovation and the creation of social value," and as a fine chemical manufacturer, TOK will continue to accumulate sophisticated trade-ons as it contributes to the creation of innovation and social impact with the aim of sustainable growth and the enhancement of corporate value.

In April of this year, the Marketing and Research and Development Division, which play a core role in this, will further develop the seamless integration of sales and development that they have focused on for about two years while maximizing the mutual interaction and synergies between capitals and aiming to achieve TOK Vision 2030, which has been revised upward to 1.7 times the net sales target, and they have refined the common goals of both divisions as follows. Under these common goals, TOK aims to achieve net sales of 350 billion yen (2.2 times compared to 2023), EBITDA of 77 billion yen (2.5 times), and ROE of 13% (up 5.8 percentage points) by 2030 by deploying a full lineup strategy based on a thorough customer perspective to customers in all areas.

#### Common Goals of Marketing and Research and Development Division.

**Intensify an aggressive stance to focus on performance expansion and realize strong technology and trusted sales.**
**Build a competitive advantage, keep in mind that a thorough customer perspective leads to further growth, including a customer-oriented strategy, and create future scenarios.**
**Continue to boost ourselves by taking on challenges boldly without fear of failure.**

- In order to respond quickly to changes in the market environment, TOK will intensify its aggressive stance to focus on performance expansion and build a competitive advantage. TOK will lead important themes from customers to early adoption, achieve sales and profit targets in budgets and medium-term plans, and improve market share.
- The company will further refine the core technologies of micro processing and multi-layer stacking, high purity processing technologies, and the ability to follow customer requirements and delve deeper into technology marketing to find materials that can be applied to technology driver areas in the electronics and semiconductor fields, which are social trends.
- TOK will create future scenarios by combining two approaches: inside-out thinking/activities that grow continuously along the extension of the current situation and outside-in thinking/activities that create discontinuous growth by thinking in innovative unknown areas that follow market changes.
- The company will start from the customer based on a customer-oriented strategy, further promote business expansion through the trifecta of development, manufacturing, and marketing, as well as additionally form Our Team involving overseas bases.
- In order to seamlessly integrate marketing and research and development, create an organization that produces products superior to competitors, and realize a company worth working for, TOK will implement measures to improve engagement by facing each employee individually.
- TOK will seize market changes as opportunities to achieve evolution through the breaking of the status quo, focus on the creation of a system for business expansion, and develop professional human capital with a strong willingness to *do what needs to be done immediately* while ensuring compliance and conducting activities that consider environmental conservation.

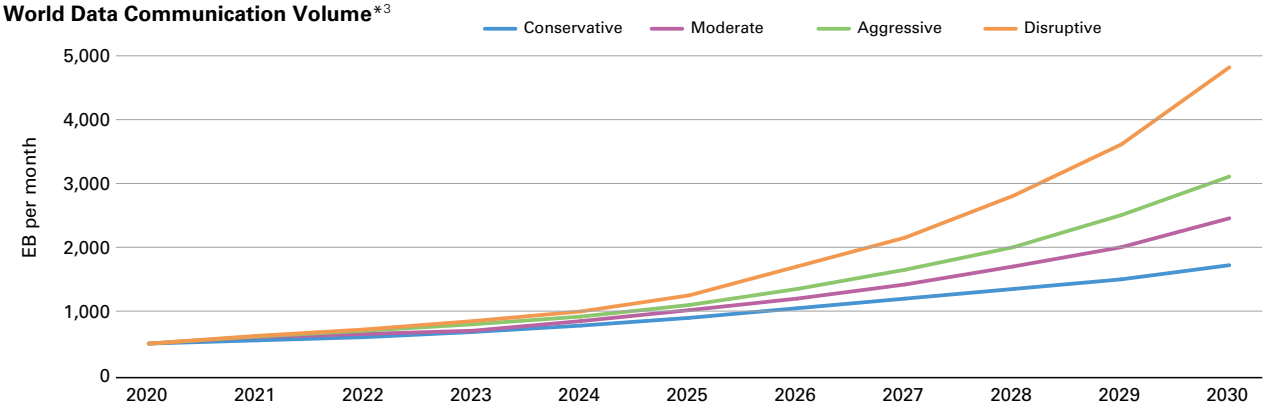
**To further strengthen the long-term growth potential and improve capital efficiency, TOK will reinvest the portion exceeding 200% of the KPI R&D efficiency**

In order to achieve the aforementioned TOK Vision 2030 and develop into a 100-year company by 2040, the company will continue to maintain the KPI of R&D efficiency of 200% or more and reinvest the portion exceeding 200% in strategic investments to maintain and improve competitiveness from a medium to long-term perspective, and in R&D investments for long-term themes looking 10 years ahead.

Specifically, as the microprocessing technology that has led the evolution of semiconductors for over 50 years has entered the era of development competition in the 1 nm node range and the level of difficulty has increased, the company is focusing on strategic investments in development with multiple approaches **(→ see pages 55–56)**, and TOK is advancing its R&D investments in long-term themes looking 10 years ahead that include photoelectric fusion, permanent films, and quantum computing through collaboration between the Strategic Alliances Department, Research and Development Division, and New Business Development Division.

First, regarding photoelectric fusion, since the realization and spread of photo-semiconductors are very likely to result in dramatic advances in low power consumption and processing speed improvements in a variety of different devices and significantly contribute to addressing the urgent social issue of increased energy consumption in data centers, TOK is investing in marketing activities, partnerships with academia, and

**World Data Communication Volume**[*3]




Source: Nokia *Global Network Traffic 2030 Report*

strengthening the packaging technology that implements light and electrons on the same substrate. With regard to permanent films, the company is focusing on investments in development because of the large potential market for such films as a material that plays an important role in multilayer stacking and packaging, which complement the limits of miniaturization. For quantum computing, since its high computational ability is expected to address many social issues, based on the core technologies that the TOK Group has accumulated so far, the Sales Strategy and Strategic Alliance Department are investing in surveys and marketing that looks more than 10 years ahead, and by closely cooperating with the Research and Development Division, TOK is working to reduce the medium to long-term R&D risks.

**KPI**

**R&D Efficiency Target**

**Achievement & Maintenance of 200%**

**—Trend over the past 10 years—**

**FY 2014/3**
**88%**

**FY 2023/12**
**263%**

## Response to megatrends and maximized risks and opportunities

**TOK is dedicated to strengthening human capital/social and relational capital/intellectual capital/manufactured capital to steadily capture opportunities that continue to expand for the medium to long term**

In 2023, the global semiconductor market decreased by 8.2% year-over-year*1 because of declining demand from sluggish personal consumption and corporate capital investment against the backdrop of global inflation, interest rate hikes, and heightened geopolitical risks; consequently, the shipment area of silicon wafers decreased by 14.3% year-over-year,*2 but the TOK Group was able to limit the decrease in revenue to 7.5% year-over-year. This is because the Group was able to expand its share in high-value-added and advanced fields centered on generative AI and further increase the ratio of advanced fields in the overall portfolio, even as the overall market stagnated.

On the other hand, the market growth trend that bottomed out around the first half of 2023 is expected to continue with the 2024 forecast of expanding by 16.0% year-over-year to reach the largest scale ever, driven by continued growth in demand for generative AI. In 2025, the market is predicted to grow by 12.5% year-over-year*1 with additional demand expansion from environmental responses and automation. After that, the market is expected to continue growing at an average annual rate of about 10%, reaching $1 trillion*2 by 2030, about 1.9 times that of 2023 as mentioned above **(→ see page 37 "Message from the President")**. Some analysts indicate that the world's data communication volume will expand at an average annual rate of 17% to 32% until 2030.*3 TOK forecasts that the demand for semiconductors that handle the increase and acceleration of this data processing volume will steadily increase.

To ensure the capturing of these continuously expanding opportunities, the TOK Group will steadily strengthen its human capital, social and relational capital, intellectual capital, and manufactured capital while continuing to refine and fully demonstrate the world's highest level of microprocessing technology and high purity processing technologies, the two core technologies, through a customer-oriented strategy to steadily achieve TOK Vision 2030 and lead to the development into a 100-year company by 2040.

In addition, TOK will continue to deploy its full lineup strategy to customers in all areas in order to minimize risks for the business portfolio as a whole with regard to the risk of future semiconductor oversupply concerns since the trend of supply and demand fluctuations in semiconductor field has become more pronounced in recent years.

*1 Source: World Semiconductor Trade Statistics (WSTS)
*2 Source: SEMI Japan
*3 Source: Nokia *Global Network Traffic 2030 Report*

### In the development of next-generation technologies, TOK is incorporating multiple approaches to maximize opportunities and minimize risks

In the development of innovative technologies, which is the most important key in the continuing capture of opportunities, the company will continue to deploy its unique business model to defeat larger competitors who have different cash generation structures and business portfolios **(→ see pages 22–23 CULTURE & BUSINESS MODEL)**, while focusing on further reducing R&D risks **(→ see page 98)** to solidify the long-term growth foundation as the number one manufacturer of photoresists for semiconductors.

Conversely, as the semiconductor industry expands and its role in society increases, the competition for technological development among semiconductor manufacturers, our customers, is intensifying each year, and in the most advanced fields, in particular, there are always multiple promising technological approaches for creating innovations, so the method TOK chooses and which to invest capital in greatly affects the market share. Therefore, TOK will continue to expand its technology seeds through collaboration with stakeholders other than customers, such as academia, startup companies, and research institutions, to ensure a path for growth regardless of which technology blooms and spreads in the future market while continuing to evolve its customer-oriented strategy and marketing activities centered on the Sales Strategy Department and Strategic Alliance Department and while continuing to refine its ability to discern future markets.

For example, for EUV lithography and other technologies that will handle 1 nm and beyond in the innovative field of miniaturization of semiconductors, TOK is investing management resources in all promising approaches, including metal oxide resists (MOR), all-dry resists, and Beyond EUV. Multiple executive fellows are leading these efforts to focus on maximizing opportunities and minimizing risks in the medium to long term. Currently, the development of metal oxide resists for EUV is specifically progressing, and customer evaluations have started for TOK products that achieve a trade-on between high resolution with metal and defect reduction, features not found in competing products.

### Transforming environmental risks and climate change risks into growth opportunities

In recent years, efforts to maximize the positive impact of semiconductors on humanity while minimizing negative impacts of environmental risks have been expanding worldwide. Currently, because of concerns about the effects of PFAS on human health and biodiversity, the development of PFAS-free products has become one of the important differentiation points in semiconductor materials. The TOK Group, which is addressing the material issues of Global Environmental Conservation Considering Future Generations and Supply Chain Sustainability, is currently accelerating the development of PFAS-free products, including the EUV/ArF/KrF/g-line and i-line photoresists and high-purity chemicals with a dedicated system. TOK is deepening collaboration with suppliers while utilizing computational chemistry to develop alternative products at an early stage and realize them as new forms of competitiveness and revenue opportunities.

Moreover, the power semiconductor market for the various energy-saving devices and renewable energy systems, which are essential for addressing climate change risks, continues to be a part of the medium to long-term growth trend, and the next-generation power semiconductor market for SiC (silicon carbide) and GaN (gallium nitride) power semiconductors, which have higher energy-saving performance than conventional silicon power semiconductors, grew significantly in 2023 and is expected to expand further for automotive electronics, renewable energy systems, fast chargers, and data centers. Therefore, TOK is focusing on further sales expansion and development as the world's top market share manufacturer of g-line and i-line photoresists essential for the manufacture of all power semiconductors. In 2024, TOK started a sales expansion project centered on the Marketing Strategy Department to understand and consolidate the SiC/GaN power semiconductor-related needs of customers around the world, to identify ideal materials and processes, and to focus on proposing products to customers in Japan, Korea, Taiwan, and Europe. Since the thick film and high heat resistance features of resists are important for SiC power semiconductors, TOK provides a wide range of options rooted in the unique full lineup strategy and materials and equipment (M&E) strategy, such as package proposals for negative i-line photoresist and stripping solution and positive i-line photoresist and UV cure equipment, to build further advantages.

### Transforming geopolitical risks into growth opportunities through the evolution of a customer-oriented strategy from short-term, medium-term, and long-term perspectives

In addition, the trend in the domestic production of semiconductors, which are strategic materials, is accelerating, and TOK will transform this into growth opportunities by responding from the short-term, medium-term, and long-term perspectives as part of its response to geopolitical risks and economic security risks in different countries around the world.

First, in the short term, as multiple overseas semiconductor manufacturers, including the largest customer, and new domestic semiconductor manufacturers successively open new bases in Japan, TOK completed a new factory at the Aso Kumamoto Site in June of this year, and the company is proceeding with equipment expansion at the Koriyama plant to capture new business opportunities associated with this **(→ see page 35 "Message from the President")**. In the United States, because TOK's largest customer is expected to open multiple manufacturing bases for advanced semiconductors from 2025 onwards, the company will focus on supplying advanced products centered on local customer-oriented sites. Next, in the medium term, TOK will implement the expansion of equipment for customer-oriented sites and establish new bases in Korea from 2026 to 2028 as one of the measures to minimize the negative impact of the increasing geopolitical risks in East Asia, including Taiwan, on the supply chain and transform the impact into new growth opportunities. From a

long-term perspective, TOK started public relations and marketing activities to enhance the recognition of the TOK brand for business development in India, which has shifted to domestic semiconductor production as a new national policy and has fully started the construction of factories. While the TOK Group is transforming geopolitical risks into opportunities from the short-term, medium-term, and long-term perspectives through the above series of initiatives, 2024 is a global election year, and the situation may change rapidly depending on the results, so the Group will continue to flexibly utilize its global network of five bases in Japan, the United States, China, Korea, and Taiwan to minimize risks and maximize opportunities.

## TOK Medium-Term Plan 2024, material issues, and initiatives toward TOK Vision 2030

**Increasing global share in advanced fields, such as for innovative generative AI semiconductor devices**

With the objective of increasing global market share of innovative photoresists, which TOK is working on as the most important strategy of the material issue "Contribution to innovation and the creation of social value" and the TOK Medium-Term Plan 2024, TOK achieved notable results especially in EUV photoresists, ArF photoresists, packaging materials, and WHS materials in FY 2023/12.

First, regarding EUV photoresists, as mentioned earlier, the development of metal oxide resists has progressed, and TOK has been able to accumulate intellectual capital that includes new patent applications, while major customers have adopted TOK products for 2 nm process logic semiconductors at a higher rate than for 3 nm, and the company also secured the initial baseline in the development competition for 1.4 nm. In addition, for the 3 nm to 5 nm range currently in mass production and widespread use, TOK has further refined our world-class high purity processing technologies that the company has been honing since its founding, and as a result of establishing a technology to visualize invisible defects, customers have evaluated it favorably, and TOK is expanding market share. Furthermore, for EUV photoresists for memory applications, such as innovative generative AI DRAMs, TOK is obtaining favorable results in evaluations by major customers because of its enhanced synthesis capabilities.

Next, for ArF photoresists, for which the company has been continuing long-term research and development aiming to capture the world's top market share, in FY 2023/12, TOK received new adoptions for ArF immersion photoresists for legacy semiconductors, which account for the majority of the market for these resists, and TOK is also receiving multiple inquiries for innovative applications, indicating that the company is beginning to accelerate the harvesting of results and expansion of growth opportunities. The TOK Group will continue to focus on long-term research and development through its customer-oriented strategy to aim for the world's top market share in these resists.

For packaging materials and WHS materials, which are currently growing for semiconductor devices used in generative AI, such as GPUs and HBM, especially for future HBM applications, the demand for bump formation resists, adhesives, and thinners is expected to further expand with the increase in the number of stacked DRAM layers, so TOK plans to steadily capture this business opportunity by continuing to refine its multilayer stacking technology, which is a new strength of the company.

**As part of the growth strategy, TOK enhancing the happiness of marketing and R&D human capital while respecting individual values**

In the human capital initiatives that support the core of the above series of strategies, TOK continue to focus on efforts based on the material issue of "Pursuit of happiness by human capital," while setting the unique goal for the Marketing and Research and Development Division. to improve engagement by facing individuals to realize an organization that creates products superior to its competitors and become a company worth working for. TOK aims to realize strong technology and trusted sales by further strengthening its aggressive stance while focusing on performance expansion by improving employee engagement from both the human capital system and reward system perspectives.

First, in the personnel system, TOK focuses on maximizing performance while respecting individual values by carefully considering individual career orientations and transfer requests described in self-assessment reports each term. The company strives to maintain and improve motivation by responding to these requests to the maximum extent possible. On top of this, TOK continue its initiatives to ensure psychological safety (psychological safety surveys) through tough assignment mechanisms (overseas dispatch rotations and oral technical presentations), the Executive Fellow system, and the SP position system. In the future, the company will quantitatively evaluate the effects of these series of initiatives and evolve them into new training programs and career support measures to achieve further results, focusing on further engagement improvement and strengthening business competitiveness **(→ see pages 66–71 "Material Issues Roundtable Discussion")**.

In the reward system, TOK will continue the existing Mukai Technology Award, incentive payment system, and the TOK Shinka Award that started in 2023. The company is also focusing on the Annual Best Poster Award System, where individuals summarize the content and results of their research and development in posters and broadly share and discuss them with human capital from other departments and divisions, further promoting interaction between human capitals **(→ see pages 66–71 "Material Issues Roundtable Discussion")**.

I hope you will look forward to TOK's further accumulation of trade-ons originating from the interaction between capitals and the happiness of our human capital, and the enhancement of corporate value through the creation of the social impact.

# Message from General Manager of Intellectual Property Management Dept.

**We will promote the TOK intellectual property strategy to maximize competitiveness and corporate value on short-term, medium-term, and long-term time scales.**




## Chima Shinohara

*General Manager, Intellectual Property Management Department, Research and Development Division*


## Intellectual Property Strategy for Maximizing Corporate Value

### Strengthening/Evolving Our Approach to the IP Landscape

TOK, which has specialized in fine chemicals since its founding and contributed to solving the social issues of each era, continues to create and accumulate intellectual property rights (intellectual capital) by resolving many technological trade-offs. Currently, as the role of semiconductors in innovation and solving social issues is expanding further and global competition continues to intensify, the company's approach to intellectual property has become one of the most important strategies for maximizing competitiveness and corporate value. Therefore, the TOK Group is focusing on activities to build and deploy a more competitive intellectual property strategy by reliably linking the results of its efforts on the material issues of the Contribution to Innovation and the Creation of Social Value, Global Environmental Conservation Considering Future Generations, and Supply Chain Sustainability through the integration of marketing and R&D as explained so far to the formation of intellectual property rights (intellectual capital).

Specifically, under the mission of the Intellectual Property Management Department to maximize corporate value through intellectual property, TOK set the basic policy of strengthening/evolving our approach to the IP landscape for each of the focus areas of research and development activities: miniaturization, high purity, multi-layer stacking, MEMS, and new businesses, and we are dedicated to the following short-term, medium-term, and long-term initiatives.

**Mission of the Intellectual Property Management Department**

**Maximize corporate value through intellectual property**

### Short-term/Medium-term Intellectual Property Strategy

In the short and medium term, TOK is building and promoting intellectual property strategies to deepen and cultivate the electronic materials field and create new businesses: two of the seven strategies defined in TOK Vision 2030.

First, with the goal of deepening and cultivating the electronic materials field, because of the intensification of global competition mentioned earlier, the development competition among major semiconductor manufacturers, TOK customers, is becoming extremely fierce, and the company must respond even more rapidly by developing core materials. TOK, therefore, places the highest importance on filing applications in parallel with development and conducting rapid surveys to prevent patent risks from materializing. In addition to formulating intellectual property strategies in line with R&D strategies, the company is focusing on efforts to enhance the linkage between the two strategies by analyzing recent technological trends and our position. TOK aims to expand its patent portfolio and minimize intellectual property risks by conducting this series of close collaborations at all domestic and overseas development bases.

Next, in order to create new businesses, the Intellectual Property Management Department is proactively implementing the IP landscape using patent and paper literature information as well as market and statistical information while actively exploring ideas for new businesses together with the New Business Development Division. In addition, there have recently been an increasing number of cases where the Intellectual Property Management Department is involved in each phase from the launch to expansion of new businesses, making a variety of proposals based on the analysis of intellectual property information and building patent networks.

Through this series of efforts on intellectual property strategies, the company will continue to accumulate and enhance the TOK Group's intellectual capital **(→ see page 12 "Intellectual Capital")**.

**KPI**

**Number of Surviving Patents***
**—Trend over the past 10 years—**

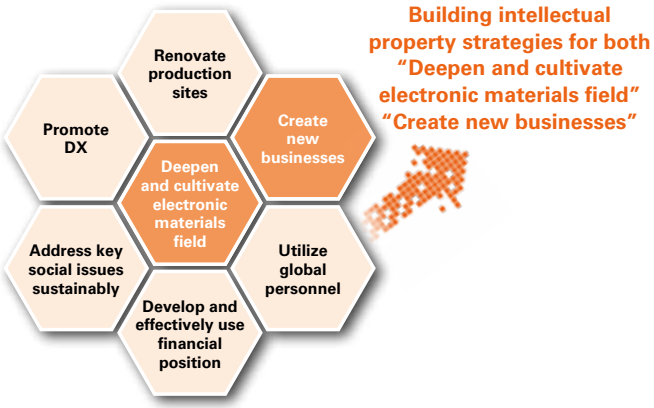
**FY 2014/3** **4,122** → **FY 2023/12** **5,996**

* Number of patents pending or in force at the end of each year

### Long-term Intellectual Property Strategy

In the long-term intellectual property strategy looking ahead to 2030 and beyond of becoming a 100-year company in 2040 and achieving carbon neutrality by 2050, TOK will strengthen and develop the use of the IP landscape with the objective of realizing an intellectual property organization that can support the sustainable enhancement of corporate value by strengthening the creation of new businesses that contribute to solving social issues and the intellectual property portfolio that protects them.

**Seven Strategies Toward 2030 and Intellectual Property Strategy**



# Message from the Director of New Businesses Development

## We will strive to reform business portfolios and create social impact from a long-term perspective.



**Yusuke Narumi**
*Director, Executive Officer, Division Manager, New Business Development Division*

### Creation of Social Impact in Long-term Growth Strategy

**Aiming for rapid business development in line with the upward revision of TOK Vision 2030**

The TOK Group aims to develop into a 100-year company in 2040 based on its achievements and economic and social value obtained through the efforts towards TOK Vision 2030, which started in 2020. Particularly in new business development, TOK is focusing on reforming business portfolios from a long-term perspective and establishing revenue sources that will become one of our main businesses.

In FY 2023/12, the company focused on the initiative to acquire and create core technologies in electronic materials and new fields in the material issue "Contribution to innovation and the creation of social value," and achieved the following results and progress. In the future, TOK aims to contribute to the achievement of TOK Vision 2030 by pursuing rapid business development through strengthened marketing functions.

**Steady growth in life science-related materials —Social Impact: Improvement of patient QOL, contribution to drug discovery research—**

The cell array chip SIEVEWELL™, launched as a TOK brand in 2019, is contributing to pathological diagnoses and drug discovery research with a reduced physical burden on patients in a broad range from infectious diseases to oncology. In FY 2023/12, TOK expanded use cases for drug discovery antibody screening and cell imaging and strengthened overseas marketing. As a result, market awareness has improved, and the company is now focusing on further improvements after receiving new development requests.

In addition, TOK started full-scale marketing of biochip materials in 2015 and achieved high performance by leveraging the microprocessing technology and MEMS material technology accumulated in the semiconductor segment. These materials are applied to the DNA sequencers that contribute to the time reduction and improved precision of base sequencing. This material, which achieves a trade-on between high lithography characteristics and low damage to cells, steadily captured the demand for genome analysis and vaccine development that increased because of the COVID-19 pandemic, and even after the end of the pandemic, it is being applied to new infectious diseases, steadily expanding sales.

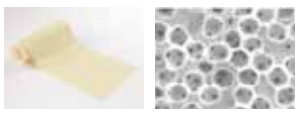
**Development of a radiating heat-dissipation material —Social Impact: Reducing waste heat and power consumption in data centers—**

TOK is focusing on marketing and development of various solutions to address the urgent social issue of reducing waste heat and power consumption in all data centers. The radiating heat-dissipation material developed in February 2023 as a new concept material with low environmental impact is expected to have a cooling effect when attached to the applicable devices. Currently, TOK is marketing to the markets of electronic devices, industrial machinery, and automobiles in order to contribute to space-saving and environmental conservation by replacing conventional materials with this product. In addition, in June 2023, the TOK Group invested in NLM Photonics, a U.S. startup, to support their R&D activities towards the practical application of electro-optical polymers, which are promising as one of the photoelectric fusion materials with the objective of contributing to a significant reduction in power consumption in data centers and other facilities.

### Create new businesses envisioning a 100-year company

SDGs to which we contribute

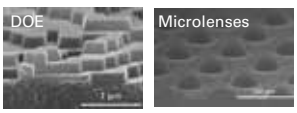
**Functional materials**
- High-functional films
- Surface modifiers



**Life science**
- Biochip materials
- Cell array chip, SIEVEWELL™



**Optical materials**
- Nanoimprint materials and high-refractive materials for AR/VR and 3D sensors




**Technologies contributing to decarbonization**
- Radiating heat-dissipation material
- Electro-optical polymers



# Message from the Executive Officer of DX

## We will enhance the value chain through DX with technology, human capital, human connections, and finance to lead to increased corporate value.




**Shinichi Isogai**

*Executive Officer, Division Manager,*
*IT and Digital Division*


### Opening the IT and Digital Div.

**To enhance corporate value, we will digitally activate four earning capabilities**

In March of this year, the TOK Group established the IT and Digital Div. to further visualize and activate its value chain, which consists of two axes: the supply chain and the engineering chain, with DX based on the core of four earning capabilities: technology (manufactured capital), human capital, human connections (social and relational capital), and finance (financial capital). The department intends to function as a powerful driver to promote and execute DX as it relates to the overall management strategy while remaining involved in all four earning capabilities and enhancing the digital environment of the entire Group.

#### TOK Group Medium to Long-term DX Strategy

**The strength of the TOK Group lies in its ability to quickly respond to customer needs and people who are bound by strong relationships of trust, including customers and suppliers.**
**Looking ahead to future market expansion, the DX measures from a value chain perspective and data utilization for enhancing corporate value are essential to achieve sustainable growth.**
**To realize these goals, TOK will proceed with the following measures.**

1. Improve employees' digital literacy and motivation to use digital technologies by digitally solving immediate issues and realizing convenience through this process.
2. Achieve standardization and efficiency of operations, consolidation of knowledge, and improvement of the utilization value by extracting issues in close alignment with the people involved in operations on the ground in order to solve fundamental issues.
3. Redefine the handling of information and data based on the supply chain and engineering chain, and build a system that can respond more quickly to customer requirements and a structure where management decisions can be made more quickly based on data.
4. Transform into a data-driven culture where collaboration extends to customers and suppliers, and data are autonomously utilized in different places as the ultimate goal.

Specifically, the department consists of the Digital Planning Unit, which is directly involved in the value chain and leads initiatives focused on urgent issues, and the Digital Platform Unit, which establishes, maintains, and operates IT infrastructure and security across the Group, and realizes data-driven decision-making through an information sharing platform. TOK is focusing on the following four initiatives to realize TOK Vision 2030:

**● Development of business processes**

While digitally reconstructing the company-wide information sharing platform centered on the value chain, TOK is digitally solving the various business issues and strengthening the production system and adaptability to change towards realizing the long-term vision

**● Promotion of smart factories**

TOK formulated common guidelines for the model specifications that the production management system aims for across the Group to improve data connectivity, reduce dependence on individuals, and reduce the burden on personnel as it deploys and penetrates these while revising them.

**● Visualization and utilization of data**

TOK is promoting information sharing through a cloud-integrated environment, aggregation, visualization, and utilization of production process-related information, and visualization of product design and evaluation information and its utilization for MI. Also, the company is unifying accounting information globally for advanced profitability analysis, utilizing accumulated information with generative AI, and creating dashboards of management performance using BI tools.

**● IT infrastructure development**

To support business expansion with DX, TOK is developing IT infrastructure by using groupware, cloud computing, and smartphone apps to accelerate the above three measures. TOK is particularly focused on strengthening security and formulating a security grand design based on risk assessment of all group locations.

Naturally, it is the people who utilize the above series of IT and digital infrastructure, and the target is efficiency and sophistication of operations. The TOK Group will strive to realize TOK Vision 2030 by growing as a whole Group and enhancing competitiveness by improving employees' digital literacy, improving operations, and contributing to the company's business.

# Message from the Executive Officer of Human Capital

## Based on the happiness of human capital, we will continue the virtuous circle of improving employee engagement and corporate value.



**Motoko Samezawa**
*Executive Officer, Division Manager, Human Capital Division*

### Toward enhancing sustainable corporate value

**Developing a Human Capital Strategy Roadmap directly linked to the long-term growth strategy**

TOK, aiming to realize a sustainable future society filled with happiness based on the material issue of the pursuit of happiness by personnel, is striving for sustainable growth by developing its human capital strategy as the foundation for value creation based on the Policy on Leveraging Human Capital, which emphasizes "Never forget that business always starts with people." In February 2024, we organized the Human Capital Strategy Roadmap to achieve the upwardly revised TOK Vision 2030 and formulated the Four Human Capital Strategies to sustain an average annual business growth of 12% through 2030. Implementation of these strategies has now begun.

Specifically, to continue driving cutting-edge innovations in the semiconductor industry, which is expected to keep growing, we are focusing on "Forming a diverse talent pool" to support business expansion. We are also committed to human capital development by offering personalized career plans and expanded educational opportunities and promoting DE&I to ensure that all employees, regardless of gender or nationality, can contribute their full potential and create synergies. Additionally, we are focusing on improving engagement to maximize the effectiveness of these efforts. By fostering collaboration among highly engaged talents, we aim to provide vibrant workplaces (allowing employees to work energetically) where employees can demonstrate excellent performance and feel pride and motivation through their achievements.

Guided by this roadmap and sustainability governance, the Group will continue to strive for value creation by leveraging the four earning capabilities: Human capital, which are the source of value creation, the Technology and Human connections they generate, and additionally Finance. By further building on the advanced trade-ons we have accumulated as a fine chemical manufacturer since our founding, we aim to achieve TOK Vision 2030 and continuously enhance our corporate value.

### Policy on Utilizing Human Capital

**Since its founding, employees have been the greatest asset of the TOK Group. The Company's human capital policy is based on the following five principles derived from its long-held philosophy that human capital are one of the company's most important assets.**

- Never forget that business always starts with people.
- Any discrimination within the company and among employees is strictly prohibited.
- Ensure full compliance with all applicable laws and regulations as well as fair and equal compensation.
- Educate personnel and promote creativity as a company that develops innovative technologies.
- Make sure that the personnel systems are based upon performance while emphasizing and ensuring transparency.

### KPI

**Employee engagement indicator**
**Positive response rate**

**Employee engagement**
**Objective for 2024: Improve by 3 points (vs. 2021)**

**Employee-friendly environment**
**Objective for 2024: Improve by 7 points (vs. 2021)**

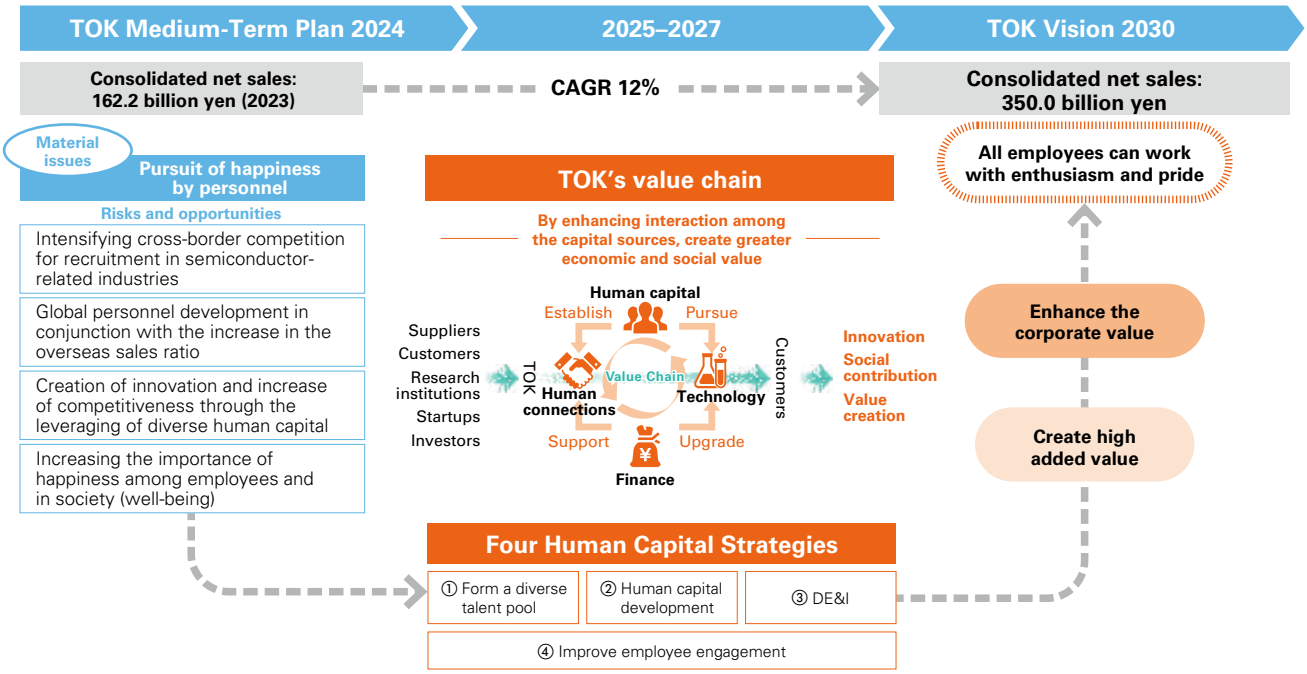
**Discussions on the definition of happiness with outside directors**

On the other hand, the Group has been actively discussing *happiness* in different forums, including discussion by the Board of Directors and the Council of Directors, to further enhance the effectiveness and clarity of the material issue of the "Pursuit of happiness by personnel" with the goal of directly contributing to improvements in the corporate value. Considering the feedback from employees in past engagement surveys and the objective perspectives of outside directors, we have concluded that *happiness equals self-actualization through personal growth.*

By supporting individual human capital to set career goals autonomously and work hard to achieve them, our aim is to

achieve voluntary, autonomous, and ambitious career development and *happiness* for all employees. By continuously providing an environment that consistently stimulates the voluntary and autonomous ambitions of our employees, we aim to maximize the potential of our Group's value creation. This will, in turn, generate outcomes of greater career fulfillment and improved evaluations and compensation, which then create a powerful virtuous cycle that will drive further corporate value enhancement.

**Human Capital Strategy Roadmap**




### Management executives commit to improving employee engagement

As mentioned earlier, it has been two years since the employee engagement indicator was introduced as a KPI in the executive remuneration system. While the awareness of aligning individual employee self-actualization with the company's growth has begun to be established as a mission among all executives and top management, the engagement survey conducted in FY 2023 showed that employee engagement decreased by 2 points, while the environment to use employees improved by 2 points, indicating that efforts are still underway.

Also, in qualitative evaluations,

**① Attachment to the culture and company backed by a frank and open-minded business culture**
**② Quality and customer orientation symbolized by high quality and close customer relationships**
**③ A decent organizational culture with a strong sense of social responsibility and high ethical standards**
**④ Competitive compensation, benefits, and accompanying human capital system that are significantly higher than the average in Japan**

were valued as strengths, while

**① Reinforcement of strategy and direction and leadership to drive the evolution of the whole company**
**② Measures for issues according to the organizational hierarchy, such as the whole company, departments, and divisions**
**③ Create an environment where employees' abilities can be further demonstrated**

were found to be necessary.

In response to these results, the Board of Directors and the Council of Directors recognized that addressing the particularly low scores for employee engagement and strategy and direction was an urgent issue. As a result, they held a discussion in November 2023 with all executives to focus on improvement measures as the main theme.

During these discussions, after reviewing the engagement survey results of each department and subsidiary, assessing the progress of efforts since 2021, and deliberating on future initiatives, we decided to focus on the following six priority measures for FY 2024. At present, our focus is on each priority measure across all layers of the company, including the entire company, each department, each division, and each subsidiary.

**Employee engagement enhancement measures**

**— FY 2024/12 Policies —**

- **Increase opportunities for management to communicate strategy and direction**
- **Divide the company, departments, divisions, and organizational hierarchy, and implement the measures at all levels in parallel**

**— FY 2024/12 Six Key Measures of the Human Capital Strategy —**

**① Personnel rotation and other measures for removing barriers among divisions and departments**
**② Strengthening career support**
**③ Enhancing education and training opportunities**
**④ Strengthening the creation of a culture that encourages challenges**
**⑤ Introducing innovative operating methods**
**⑥ Continuous enhancement of resources**

## Response to megatrends and maximized risks and opportunities

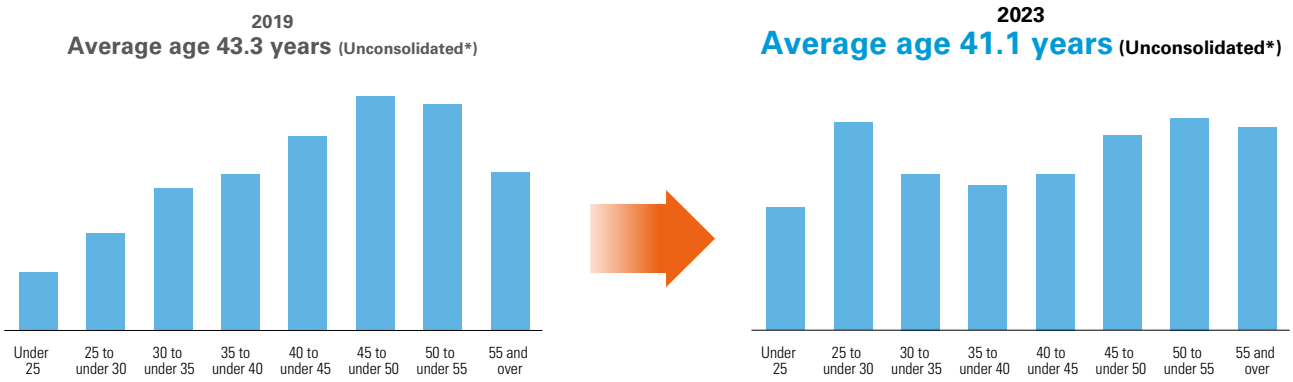
### Intensifying competition for cross-border talent acquisition

Although the semiconductor industry was in a period of adjustment in 2023, it has returned to a growth trajectory since the middle of the year due to the expansion of the generative AI market. In addition, it is expected to continue to grow continuously with new developments and innovations such as miniaturization, stacking, and photoelectric fusion. In addition to the intensification of geopolitical risks, semiconductors have become more significant as strategic products that greatly affect the economic security and national strength of each country. Countries around the world are accelerating risk diversification by strengthening domestic development and production and developing multiple bases, and Japan has also made large-scale investments in the regrowth of the semiconductor industry. In related industries, including our company, competition for borderless human capital is intensifying in Japan and internationally.

In Japan as well, with its declining birth rate and an aging population, the transition from traditional membership-based employment to a job-based employment system is accelerating, especially for young people, and employment mobility is beginning to advance because of the expansion of the job change market.

With this in mind, we launched a new personnel system in 2022, moving from the traditional functional qualification system with a strong seniority element to a role grading system that emphasizes the size of the expected role to be performed and the corresponding results. The company will also implement successive measures for focusing on happiness, employee-friendly working environments, rewards for work, and health, safety, and hygiene issues from the perspective of the entire group, thereby increasing employee engagement and pursuing the ideal as a company that is favored, selected, and respected. In this way, we are strengthening human capital in both quality and quantity and focusing on creating innovation by accumulating new trade-ons.

**Changes in the age structure due to the increase in recruitment of young people**




* Excluding those seconded from TOK to other companies and contract workers, but including people seconded from other companies to TOK

### Strengthening the sustainability of human capital by expanding the recruitment of young people

In particular, in the effort to enhance the quality and quantity of human capital, the shortage of talent has intensified because of the recent growth of the semiconductor industry and the shrinking labor force caused by the declining birthrate and aging population. By reinforcing young human capital through both new graduate and mid-career recruitment, we successfully improved the sustainability of our human capital in terms of both age composition and quantity. At the moment, we are continuing to focus on strengthening human capital by expanding recruitment to achieve the TOK Vision 2030.

**Number and breakdown of recruitment (new graduates/mid-career hires)**

**2023**

**114**

**(58 new graduates, 56 mid-career hires)**

### We plan to introduce a 65-year retirement system with maintained compensation

In the innovative field of semiconductors on the other hand, it is crucial to engage in long-term research and development spanning over ten years, alongside maintaining daily responsiveness. Given that the intellectual capital including the technology and expertise accumulated by senior personnel will generate significant value in our future business strategies, we will implement a 65-year retirement system with maintained compensation starting in 2025. This groundbreaking system maintains the same role-based salary for employees over the age of 60 as they received during their careers of active service. By fully utilizing this system, we aim to enhance our ability to address increasingly complex business and technical challenges while also ensuring the effective transfer of intellectual capital from senior to younger employees, thereby improving the overall quality of our human capital portfolio.

## TOK Medium-Term Plan 2024, material issues, and initiatives toward TOK Vision 2030

### Focus on further penetration of the new personnel system and Six Priority Measures

The fiscal year ended December 2023 marked the second year of the medium-term strategy to improve employee engagement and to promote people-oriented management, which was closely linked to the material issue of the pursuit of happiness by personnel"; therefore, we focused on addressing the lack of understanding of the new personnel system identified as a challenge in the first year. To this end, we strengthened evaluator training and initiated efforts to instill the concept and details of the new personnel system into on-site management roles.

As a result, in the responses to the 2023 engagement survey, we observed clear improvements from the previous year, including an increase in such comments as "I have a deeper understanding of my expected role" and "I have greater satisfaction about feedback from my supervisor." We also received such comments as "Human capital who can achieve results and fulfill their roles even at a young age can be promoted faster than with the old system. This makes me even more motivated." In FY 2024, the final fiscal year of the Medium-Term Plan, we will concentrate on the aforementioned Six Priority Measures while further instilling the new personnel system. We will also fully support the concept that *happiness equals self-actualization through personal growth* for employees.

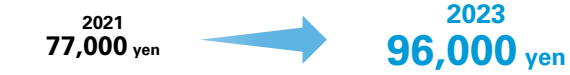
### Further improving corporate value by expanding investment in human capital

The value chain of the TOK Group consists of its advanced technology and the human connections with customers and suppliers. Human capital are the source of these capabilities. By actively investing in human capital, we will promote the evolution of technology and human connections and create sustainable added value. The Group aims to create sustainable added value and enhance corporate value by actively investing in technologies that build value chains and human capital, which are the source of human connections.

Most of the investment in human capital is directed to labor costs, and in the past ten years, we have continued to increase wages by about 2% to 5% every year, and education and training costs per capita have also maintained an increasing trend.

In particular, we prioritized the enhancement of education and training expenses, following numerous requests for expansion in the FY 2021 engagement survey. Beyond the traditional group training of hierarchical education, we introduced an e-learning system tailored to individual needs in October 2023, which is now being actively utilized. Furthermore, we expanded our award system to further promote a culture of praise. The Mukai Technology Award, which recognizes outstanding R&D, now features a prize amount set above the competitive benchmark, and we have also introduced the TOK Shinka Award for nontechnical departments to foster motivation. In FY 2024, we expanded the award scope to include our overseas group companies as part of our efforts to strengthen global consolidated management. We are committed to creating new value as a unified group.

**Trend in education and training expenses per person (Unconsolidated)**




* Average of 173 listed companies in the Research on Education and Training Expenses in FY 2022 by the Sanro Research Institute: 29,000 yen

**Trend in annual award amount**




### Strengthening "Form a diverse talent pool" and "DE&I" to create further innovation

As mentioned above, the Group is committed to the human capital strategy of forming a diverse talent pool and DE&I to create further innovation. Because both risks and opportunities continue to become maximized in the business environment, innovations and risk management are essential for leveraging diverse insights, values, and specialties so that the TOK Group can continue promoting its purpose of contributing to a sustainable future through chemistry. Therefore, the Group will focus on the further development of female human capital and the further evolution of the utilization of international human capital.

The TOK Group achieved a record-high ratio of women in senior and middle management and a record-high ratio of women among the overall employees in the fiscal year ended December 2023 because of the effects of its continued efforts to recruit and retain female employees and to promote them to senior and middle management. The Group also achieved a record-low difference in average tenure figures for men and women. Recently, we strengthened the support for individual female employees as well as for their departments and supervisors. In August 2023, we introduced an overseas expatriate spouse accompanying leave system. In this way, we are accelerating efforts to foster a culture and create mechanisms that support greater participation of women. Moreover, the use of the male childcare leave system has accelerated over the past two years. In the fiscal year ended December 2023, the number of users increased to 24, doubling from the previous year and resulting in a user rate of 67%. We will continue to promote a work environment that makes it easy to balance work and childcare regardless of gender.

In the fiscal year ended December 2023, the number and proportion of international employees temporarily decreased because of the exclusion of some overseas subsidiaries from consolidation. However, the overall trend remains upward. Additionally, the ratio of local hires in overseas management positions, which is one of our KPIs for material issues, reached a record high of 56.3%. These tendencies will continue as overseas sales increase. The Group has also continued intra-group human capital exchange for international synergies in insights and values for several years, which is to be further enhanced.

**KPI**

**Ratio of women in senior and middle management**

**Objective for 2030: Increase by twofold (vs. 2020)**

**KPI**

**Childcare leave user rate among male employees**

**Objective: Maintain 30% or more**

### Indices related to female employee participation (Unconsolidated)*1

| | 2019 | 2020 | 2021 | 2022 | 2023/12 |
|---|---|---|---|---|---|
| Ratio of female new employees hired (%) | 39.4 | 38.5 | 17.0 | 26.4 | 22.4 |
| Ratio of women among the overall employees (%) | 13.0 | 13.7 | 14.0 | 14.6 | 15.3 |
| Difference in average tenure figures for men and women (years) | 9.3 | 9.1 | 8.4 | 8.1 | 7.9 |
| Ratio of women in senior and middle management (%) | 3.3 | 3.2 | 3.8 | 4.0 | 4.5 |
| Ratio of women on the Board of Directors (%) | 7.7 | 7.7 | 7.1 | 10.0 | 20.0*2 |

*1 Employees exclude those seconded from TOK to other companies and contract workers, but include people seconded from other companies to TOK
*2 The ratio of women on the Board of Directors is as of 2024

### Wage difference between male and female employees (percentage of female wage to male) (Unconsolidated) *1

| | 2019 | 2020 | 2021 | 2022 | 2023/12 |
|---|---|---|---|---|---|
| All workers (%) | 49.7 | 59.1 | 65.5 | 65.4 | 71.3 |
| Permanent employees*2 (%) | 65.5 | 67.4 | 69.4 | 68.2 | 70.0 |
| Fixed-term employees*3 (%) | 33.9 | 49.8 | 60.4 | 61.5 | 83.4 |

*1 Wage: Includes base salary, payment for overtime work, and bonuses but excludes retirement allowance, commuting allowance, and other allowances
*2 Permanent employees: Secondees exclude those seconded from TOK to other companies but include persons seconded from other companies to TOK
*3 Fixed-term employees: Include temporary employees but exclude dispatched temporary worker staff

**Supplementary explanation concerning difference:**
Although there are no gender-based differences in the wage system or policies, gender disparities exist in the distribution of personnel by grade, including management positions, which has led to differences in wages. In the coming years, TOK will promote the appointment of female managers toward a KPI objective for the material issue of the ratio of women in senior and middle management with the goal of doubling the level by 2030 (vs. 2020).

### Number of users of childcare-related systems (Unconsolidated)

| | 2019 | 2020 | 2021 | 2022 | 2023/12 |
|---|---|---|---|---|---|
| Childcare leave system (number of users) | 16 | 19 | 27 | 31 | 40 |
| Shorter working hours (number of users) | 13 | 12 | 16 | 17 | 24 |
| Childcare time (number of users) | 16 | 16 | 13 | 15 | 23 |
| Childcare leave system (number of male users) | 1 | 5 | 8 | 12 | 24 |

### Number of non-Japanese employees

| | 2019 | 2020 | 2021 | 2022 | 2023/12* |
|---|---|---|---|---|---|
| Number of non-Japanese employees (unconsolidated) | 16 | 18 | 18 | 24 | 16 |
| Number of non-Japanese employees (consolidated) | 412 | 424 | 476 | 524 | 457 |
| Ratio of non-Japanese employees (consolidated) (%) | 23.9 | 24.2 | 26.2 | 26.9 | 24.3 |

* The decrease in 2023/12 was due to the restructuring of overseas consolidated subsidiaries.

## Ensuring the health and safety of human capital

### Promoting health management from the perspective of improving employee engagement

Since formulating the Health Management Declaration in June 2022, our Group has been dedicated to health management. We will continue to foster an environment where individuals can achieve self-realization and enhance their well-being both mentally and physically. In FY 2024, we will focus on measuring presenteeism as one of our key initiatives while continuing and evolving the following existing measures.

As one of the ways to create an environment where employees can be physically and mentally healthy and to maximize their individuality and abilities, TOK continued to implement Collab Health for the prevention and identification of diseases in cooperation with the Tokyo Ohka Kogyo Health Insurance Society while encouraging officers and employees to maintain and promote health. For example, the company launched the My Health Web as a portal to provide health-related information for improving health knowledge and awareness among officers and employees. The Company also holds periodic walking festivals with the participation of the president and many officers and employees. In January 2024, TOK was designated a Sports Yell Company by the Japan Sports Agency for the fourth time.

To provide counseling services on mental and physical health, public health nurses have been appointed at certain sites. The company is also currently working to reduce the percentage of employees who smoke while strengthening countermeasures against passive smoking. TOK will continue to enhance the PDCA cycle of health and productivity management through its aim to nourish a health culture where officers and employees autonomously manage their health.

These efforts have been appreciated, and TOK was recognized in the 2024 Certified Health and Productivity Management Outstanding Organizations Recognition Program by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi in March 2024 for the sixth time.

### By reinvesting the fruits of growth in human capital, we will continue to turn a virtuous cycle of human resource happiness (= self-realization) and corporate value improvement

Through the series of human capital initiatives described above, the Group will continue to invest in human capital and promote the self-realization of each individual by enhancing their skills and capabilities. By addressing more complex social and technical challenges and contributing to strategic trade-ons, we aim to further enhance the value and competitiveness of our products.

This will allow us to achieve further revenue growth and to enhance corporate value. By reinvesting the fruits into human capital, we will continue to create a virtuous cycle of improving the happiness (= self-realization) of each individual and enhancing corporate value. Going forward, we invite you to look forward to the enhancement of our corporate value driven by the well-being of our talent at TOK.

# Material Issues Roundtable Discussion

## Intellectual Capital/Human Capital Strategy for Contributing to Innovation and Pursuing Employee Happiness




**Motoko Samezawa**
Executive Officer
Division Manager,
Human Capital Division

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**Yuji Watanabe**
Chief Analyst
Active Fund Management Department II
Daiwa Asset Management Co., Ltd.

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**Katsumi Ohmori**
Executive Officer
Deputy Division Manager,
Research and Development Division

Based on the management philosophy of "Create a frank, open-minded business culture; continue efforts to enhance technology; raise the level of quality of products; and contribute to society" and the purpose of "Contributing to a sustainable future through chemistry," Tokyo Ohka Kogyo is constantly refining its business strategy, capital strategies, and value creation story through dialogues among top management, IR representatives and investors as well as dialogues between on-site managers and investors.
This time, as social issues become increasingly more complex and the importance of innovation by companies is further increasing, TOK delved deeper into how the company should evolve its intellectual capital strategy, human capital strategy, and approach to material issues through dialogues between on-site managers and buy-side institutional investor.

**About a year ago, we met with Mr. Watanabe on the theme of intellectual property. This time, we would like to have a dialogue with the addition of the executive officer for human capital, which has a strong connection to intellectual capital.**

**Watanabe:** In last year's meeting, I discussed with Mr. Ohmori, the deputy division manager of the Research and Development Division, and Ms. Shinohara, general manager of the Intellectual Property Management Department, about how the recent improvement in Tokyo Ohka Kogyo's profitability and PBR is related to its intellectual property strategy. As a result, I recognized the characteristics of TOK's intellectual property strategy, which is extremely rapid, in the field of advanced semiconductor materials where the period from development to commercialization is short. Based on that, I expressed my hope that TOK's corporate value would be further enhanced as efforts and information disclosure related to human capital, which is closely related to intellectual property, as well as intellectual property itself, would progress in the future.

**Ohmori:** Thank you very much. In last year's meeting, in addition to our speed, you also pointed out the high efficiency in the areas of patent registration rate, which was very informative. As you know, while rapid development is required for innovative semiconductor materials, development of some highly difficult products, like EUV photoresists, can take more than 15 years. While strengthening the intellectual property strategy that is linked to these, we once again recognized the importance and high information needs of the connection between intellectual property strategy and profitability that you suggested, Mr. Watanabe, and decided to enhance the disclosure related to intellectual property from this year's integrated report.

**Samezawa:** Until I became the head of the Human Resources Department in 2020, I worked in the Quality Assurance Department and was often present where our human capital created many products and patents through the trifecta of development, manufacturing technology, and quality assurance. At Tokyo Ohka Kogyo, while individual employees have a very sharp engineering spirit, there are often cases where human capital with different ideas discuss at the same time, resulting in new ideas and innovations. I understand firsthand that the interaction between intellectual capital and human capital is the foundation of our value creation. Today, through the dialogue with Mr. Watanabe from Daiwa Asset Management, one of our shareholders, I would like to deepen our understanding towards further strengthening our intellectual capital strategy and human capital strategy.

**Watanabe:** I think it's wonderful that you've added human capital to the theme today, not just intellectual property. Among various management resources, human capital has strong relationships and connections with other capitals and is a resource that forms the basis of corporate culture. In your integrated report last year, you emphasized the interaction between capitals throughout, and I think the strong company-wide awareness of interaction centered on human capital is reflected in the theme of this dialogue.

**Samezawa:** I believe that the phenomenon of the various internal and external resources fusing, or in the words of Mr. Kunio Ito, synchronizing, is occurring between society and companies and individuals and companies. Even within our company, intellectual capital does not walk alone, but various capitals fuse and synchronize within the value chain, connecting as a value creation story.

**Our current stock price has risen about twofold compared to a year ago, with PBR at nearly 3 and PER at nearly 30. Given that ROE is in the 7% range, I recognize that most of the capital market's evaluation of our company consists of the evaluation of intangible assets such as intellectual capital and human capital and expectations for future growth. What do you think, Mr. Watanabe?**

**Watanabe:** When a situation continues where a slightly higher PBR is given compared to ROE, this is due to a reduction in the cost of shareholders' equity or an increase in expected growth rate. In other words, it's a situation where high evaluation of intangible assets such as intellectual capital and human capital is having a positive impact on PBR components of the cost of capital and expected growth rate. Specifically, it can be estimated that the establishment of a high-profit structure through entry barriers created by intellectual property strategy, employee job satisfaction and productivity improvement, creation of innovation, and reduction of misconduct risks are affecting PBR components. In the case of Tokyo Ohka Kogyo, I believe that for intellectual capital, high R&D efficiency and high market share in advanced fields are being evaluated, and for human capital, the rising trend in operating profit per employee is being evaluated.

**Ohmori:** Regarding the first point, R&D efficiency (= operating profit for the past five years / R&D expenses for the five years before that), we have been working on this as a KPI for the Research and Development Division for several years, always aiming for 200% or more and allocating the portion exceeding 200% to research and development of long-term themes looking 10 or more years into the future. The most recent R&D efficiency (FY 2023/12) was 263%, and we are delighted that our investors appreciate this effort.

Also, regarding the second point of high market share in

advanced fields, we are expanding our share in both EUV photoresists and ArF photoresists, and the number of surviving patents (number of patents pending application or in force) related to both products is also increasing. Of course, in the world of semiconductor photoresists, simply owning patents does not lead to cash generation, and monetization becomes possible only when combined with mass production technology separate from patents; however, keeping in mind that the importance of intellectual capital as a prerequisite is increasing more and more in recent years, we will continue to focus on expanding our market share in advanced fields and increasing the number of surviving patents.

**Samezawa:** Such steady results from the Research and Development Division strongly correlate with the organizational culture-related scores in the employee engagement survey. In recent engagement surveys, the evaluation agency consistently cited three strengths of the company's overall organizational culture: attachment to the culture and company backed by a frank and open-minded business culture, quality and customer orientation symbolized by high quality products and close customer relationships, and a decent organizational culture with a strong sense of social responsibility and high ethical standards. Moreover, in the Research and Development Division, two scores are particularly high compared to other divisions: "There are opportunities to realize proposals that I want to do" and "There is a culture where excellent outputs are appreciated and recognized by others," which are unique characteristics of this division. As you know, the human capital in the Research and Development Division face semiconductor manufacturers who continue to lead the world on a daily basis and are constantly exposed to very high demands from customers. In response to this, coming up with ideas and creating new things is truly a difficult task, and that's why maintaining high internal culture scores for "There are opportunities to realize proposals that I want to do" and "There is a culture where excellent outputs are appreciated and recognized by others" as mentioned earlier has become an important management strategy and growth strategy for TOK. We will continue efforts to ensure the psychological safety of the workplace so that our human capital can perform to their maximum potential.

**Watanabe:** Thank you, that is very clear. In your integrated report so far, while the engagement score target has been disclosed, the score results have not been disclosed **(comparison with the previous main KPI scores is disclosed from this year's report → see page 62)**. In the future, if you could disclose the details of the score results along with their background and context as you just discussed, you can deepen the discussion with investors based on that. The matter of the development divisions scores as mentioned earlier is very understandable, and in the future, conversely, if we could hear stories like "How were the engagement scores of departments



where development didn't go well?" or "Although it didn't go well this time, they are maintaining high motivation to apply it to the next opportunity," investors can view the company's human capital even more positively. At a certain company, the engagement score for the department that needed structural reform was the highest, and when I asked for the reason, I was given a very convincing story, which became an important opportunity to raise the evaluation of that company. In any case, engagement scores and their background and context are very valuable information for us investors.

**Ohmori:** To add to the culture and psychological safety, in the Research and Development Division, under the management philosophy of "Create a frank and open-minded business culture," we first respect the autonomy of the human capital, and use the concepts of *think, conduct research, make decisions, and take the initiative* as our action guideline. Rather than top-down, we encourage challenges from each human capital in a bottom-up manner, and we focus on creating a culture that maximizes individual abilities while fostering engineers. In addition, as one of the mechanisms to ensure psychological safety, we independently conduct a psychological safety survey once every six months, and while sharing the results with managers, we are running a detailed PDCA cycle on how to foster a workplace culture where psychological safety is ensured.

**Watanabe:** While a culture that values "Create a frank and open-minded business culture" and challenges is very important, if you lean too heavily on it, there's a possibility that management and leadership could become insufficient, so I think the key is finding a balance between the two. Since TOK is technology-oriented, if engineers have too much discretion, there's a possibility that the direction of development could waver, and costs could become uncontrollable.

**Ohmori:** You're absolutely right. That's why the other keyword we focus on is, of course, the customer perspective. While it's very interesting to delve deep into research by exercising our engineering spirit, we always encourage the employees to see

things from a customer's perspective and consider whether we are really providing value to the customer. Additionally, for those of us who have been implementing a customer-oriented strategy for many years, the frontline is, in most cases, the customer's site. Our engineers actually go there for discussions with customers, and I believe that we have a plan where the optimal solution is naturally derived while providing the best products within the given schedule.

**Watanabe:** I think that such a customer perspective has taken root as your company's identity, just like "Create a frank and open-minded business culture." On the other hand, I've been analyzing TOK as an analyst for over a decade, but until a few years ago, I had a much stronger impression of technology orientation about TOK. My impression is that the customer perspective you just mentioned has only been fully realized in the last two to three years.

**Ohmori:** That timing coincides with when President Taneichi announced the integration of marketing and development in 2022, implementing a fundamental organizational restructuring where one division manager oversees both the Marketing and the Research and Development Divisions. While the company has been realizing sustainable growth by globally deploying a customer-oriented strategy through the trifecta of marketing, development, and manufacturing, since 2022, marketing and development have been almost fully integrated. I believe that the effects of this are beginning to bear fruit in the form of expanding market share in advanced fields.

**Samezawa:** As the Human Capital Division, to support such organizational policies from a cultural perspective, we are expanding the award system to foster a culture of praise. Based on the idea that failures are necessary for good successes, we are promoting the creation of a culture that can tolerate failure, while at the same time raising the prize money for the award systems, such as the Mukai Technology Award, to about 1.5 times that of benchmark companies, which helps to boost motivation.

**Watanabe:** Regarding the rise in operating profit per employee, which is another factor in the stock price increase, I think you will further expand hiring towards sales growth while maintaining high profitability. Until now, I have seen many other companies that expanded hiring because of rapid growth, but failed to achieve a culture fit; ultimately, it did not lead to business growth. When hiring, I hope you will not only consider each candidate's career and background but also place importance on their compatibility with your company's culture of "Create a frank and open-minded business culture," "customer-oriented," and "the trifecta."

**Samezawa:** At present, the culture fit is going well, and core human capital are steadily emerging from among mid-career hires. To ensure that this continues, we are working on enhancing post-entry training for mid-career hires as one of our key human capital initiatives for FY 2024.

### In February 2024, TOK upwardly revised the quantitative aspects of TOK Vision 2030, raising sales target from 200 billion yen to 350 billion yen, EBITDA target from 45 billion yen to 77 billion yen, and ROE target from over 10% to 13%. The stock price also rose significantly in response to this, but what is your view, Mr. Watanabe?

**Watanabe:** In the 10 years up to 2023, TOK's average annual growth rate was 8% for net sales and 9% for EBITDA. Given this performance and the recent improvement in the business environment, I believe the upward revision of the previous quantitative aspects (average annual growth rates of 8% and 9% respectively) was inevitable. However, the upwardly revised quantitative aspects show average annual growth rates of 12% and 14% respectively, which signals that the company feels confident not only about the improvement in the business environment but also about the strengthening of management resources and the progress of business strategies towards accelerating future growth. Along with the recent enhancement of the integrated reports, I believe this has affected the cost of capital and expected growth rate, leading to the rise in stock price.

However, regarding ROE, while the target is 13%, I think TOK could aim even higher. One expectation for further improvement in ROE is that the business model of creating and establishing competitive, high value-added businesses, products, and services will be strengthened as business



strategies and management foundations of intellectual property and human capital function as one. ROE should be further enhanced as nonfinancial sources of value creation become stronger. At the same time, I hope you will focus on further reducing the cost of capital by strengthening the disclosure of intellectual capital strategies and human capital strategies linked to business strategies, thereby reducing the information asymmetry with the capital market.

Specifically, for the intellectual capital strategy, I hope you will use unique KPIs and other mechanisms to help stakeholders recognize the characteristics of the research and development strategy and intellectual property strategy that support both the speed and long-run aspects that are characteristic of TOK. For human capital, shareholders and investors want to know about the output of your human capital, how much of it is being demonstrated, and what kind of investment in human capital you are making for continuation and development—they want to understand this cycle. Therefore, I think you should first disclose the results and analysis of the engagement survey and use that as the starting point to deepen dialogues with investors.

**Ohmori:** Regarding the intellectual capital strategy, we will first present our vision and priority development areas related to intellectual property in this integrated report. As for KPIs, we will first disclose trends in the number of surviving patents to show the overall scale of intellectual property **(→ see page 58 "Message from General Manager of Intellectual Property Management")**. Going forward, we will also consider disclosing the registration rate, which shows the efficiency of patent acquisition, and the overseas application ratio, which indicates global competitiveness.

**Samezawa:** We will also significantly expand the disclosure of the human capital strategy in this integrated report. We will visually present the medium to long-term human capital strategy roadmap and include information that clearly conveys the linkage between business strategy and human capital strategy in the value chain, and the path to growth and corporate value enhancement towards 2030 **(→ see pages 61–65 "Message from the Executive Officer of Human Capital")**.

**Watanabe:** I look forward to it. Investors' views on investment in human capital have changed significantly in recent years, and it's now an era where investors check with companies, "Are you properly raising wages?" Regarding TOK's recent investment in human capital, I'm particularly focusing on the Tokyo Ohka Global Employee Shareholding Association System. While there are still few cases in Japan, I think it's a truly excellent system.

**Samezawa:** Thank you very much. We originally had the high participation rate of 70% in the domestic employee shareholding association system, and for this Global Employee Shareholding Association System, we are receiving many positive responses from overseas bases, such as "Of course I want to join" and "If I join, the fruits of growth will be fed back to me, and it makes me want to work even harder."

**Watanabe:** In the future, I would like to deepen our dialogue with you by asking you to disclose these participation rates. While stock prices inevitably fluctuate because of short-term performance and business and market environments, in recent years, as investors' evaluations of corporate value shift to long-term perspectives and relevance to social issues, the evaluation of management resources is becoming increasingly more important. Innovation is essential for addressing social issues, and human capital, which is the source of innovation, is closely linked to other management resources, such as intellectual capital. This is the main reason why I focus on companies' intellectual and human capital. If we demonstrate the importance of intellectual property strategy and human capital strategy in line with the idea that corporate value is generated from the difference between capital efficiency (ROE) and the cost of capital, the functioning of the intellectual property strategy in conjunction with human capital strategy and business strategy leads to confidence in the business model of creating and establishing competitive, high value-added businesses, products, and services while fostering expectations for improved capital efficiency.

### As one of the mechanisms to promote self-realization through individual growth, our company positions overseas assignments as tough assignments and fully utilizes them as opportunities for human capital growth.

**Ohmori:** TOK, which earns about 80% of its sales overseas, has development bases in Taiwan, Korea, and the United States, and assigns human capital from the Research and Development Division on regular rotations. The experience of implementing the customer-oriented strategy overseas, where our engineers engage in manufacturing while directly communicating daily with customers from world-class semiconductor manufacturers, contributes significantly to individual career development and skill enhancement, so we will continue active regular rotations in the future.

**Samezawa:** The number of employees with overseas assignment experience exceeded 200 on an unconsolidated basis as of 2023 and is expected to increase further with future rotations. The experience of directly hearing customers' voices in a tough environment with different cultures and creating value using the resources of the entire Group is making our human capital grow by leaps and bounds. I think this is clearly reflected in the fact that over 70% of company executives have overseas assignment experience.



**Watanabe:** That's a very good system. If so, as human capital is trained, the current environments considered tough will no longer be so; therefore, the next mission for management will be to create new tough environments, that is, to continue creating new challenges by expanding business areas.

**Ohmori:** As you pointed out, we are currently providing tough environments focusing on the environmental differences between domestic and overseas sites in existing business areas of photoresists, but I expect that as the number of rotations increases and human capital grows, these will no longer be considered tough. Therefore, we are currently increasing training with deliberately difficult conditions, such as presenting recovery plans in situations on the verge of losing orders, not only for overseas assignments but also assuming situations close to practical domestic scenarios. In the future, we will make better use of fields that are difficult for the company as a whole, such as creating new businesses as stated in TOK Vision 2030, and strengthen activities to create new businesses from the perspective of intellectual property.

**We are currently formulating our next medium-term plan starting from FY 2025/12 and our next material issues. While we do not expect to make major changes to the current structure in our next material issues, we would appreciate your opinions on our medium-term plan and material issues.**

**Watanabe:** I think your current material issues are very well crafted, with strong connections to your purpose, management philosophy, and long-term vision. Therefore, I think the key point going forward will be how to enhance the effectiveness of issue recognition, initiatives, KPIs, and follow-ups, rather than the material issues themselves. In particular, "Pursuit of happiness by human capital" is a unique material issue that encompasses job satisfaction, growth, and well-being, but the Global Employee Shareholding Association System we talked about earlier is closely related to this material issue, and as an investor, I feel I want to follow its progress after implementation. And I hope you will introduce initiatives and KPIs that further stimulate the interaction between intellectual property and human capital as part of the next material issues so that we can evaluate the intellectual property strategy and human capital strategy from a longer-term perspective.

**Ohmori:** Regarding the material issue of "Contribution to innovation and the creation of social value," we expect to maintain its basic form as part of the next material issues and as the foundation of our business strategy and intellectual capital strategy. Since the social issues we aim to contribute to span short-term/medium-term/long-term/super-long-term, we plan to set multiple KPIs for each theme while distinguishing between speed-focused and long-run approaches by determining the necessary time frame for development approaches and intellectual property strategies.

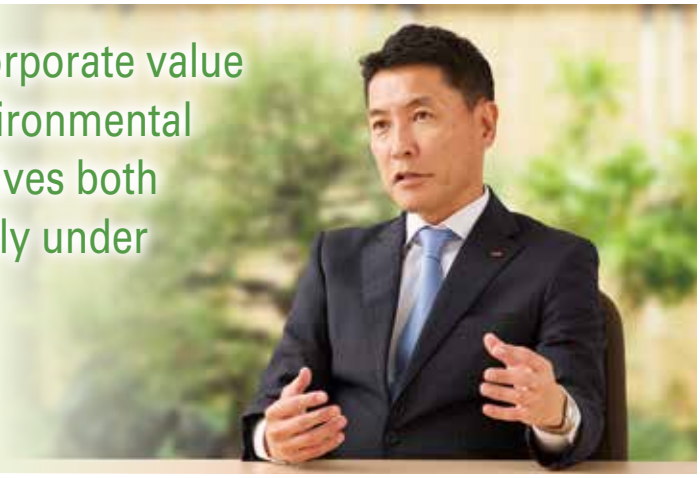
**Samezawa:** We also plan to basically continue the material issue of the "Pursuit of happiness by human capital" as part of the next material issues, and we want to disclose more clearly the relationship between human capital strategies on different time scales and material issues. Also, regarding what the pursuit of happiness actually means, we are stating from this integrated report that *happiness equals self-actualization through personal growth*. This is closely linked to job satisfaction, and even if a comfortable working environment is perfectly prepared, it doesn't necessarily increase employees' happiness. I think that moderate stress and appropriate stretch goals and the sense of accomplishment in meeting them will lead to growth. The key point is how TOK can provide the foundation for self-actualization through personal growth, so we will continue to devise and incorporate different mechanisms to enhance job satisfaction.

**Watanabe:** Since human capital is a core management capital closely related to all capitals, if you are always aware of the relationship with human capital when explaining material issues and various capitals, it will promote a three-dimensional understanding of TOK and further enhance long-term trust.

Also, since the intellectual and human capital strategies of each company evolve and information disclosure progresses in the future, I expect that dialogues between investors and companies and corporate value evaluations will further evolve and that a virtuous cycle centered on dialogue will support active R&D activities and human capital investment of each company, creating innovations while synchronizing the sustainability and growth of society and companies.

# Message from the Director of the Environment

## We will achieve sustainable corporate value enhancement by evolving environmental and occupational safety initiatives both domestically and internationally under a long-term growth strategy.




**Hirotaka Yamamoto**
*Director, Executive Officer*
*Division Manager, Manufacturing Division*


### Toward enhancing sustainable corporate value

**Formulating medium-term targets to minimize negative outcomes**

With overseas sales accounting for over 80% of the TOK Group's total revenue, we are pursuing the global standard in our business activities and in our sustainability efforts. As part of this effort, in February of this year, we fundamentally revised the previous medium-term target for achieving carbon neutrality by 2050 by changing from emission intensity to absolute emission volume and expanding the scope of targets to cover the entire consolidated group **(→ see page 39 "Message from the President")**. Furthermore, we set the aggressive goal of reducing emissions by 30% by 2030 compared to 2019 levels, which would otherwise be expected to increase significantly from increased production if no reduction efforts were made.

Through our efforts to achieve this goal, the TOK Group will minimize $CO_2$ emissions, which are a negative outcome that damages corporate value, on an absolute volume basis while maximizing the *contribution to reductions* through environmentally contributing products as described later thereby accumulating trade-ons between social and economic value and striving to enhance sustainable corporate value.

**KPI**

**Energy-related $CO_2$ emissions (Scopes 1 and 2)**

**2030 Medium-term Targets**

**Emissions of 33,000 tons-$CO_2$e or less**
**(30% reduction compared to 2019)**

**Accelerating the use of renewable energy and replacement with high-efficiency equipment**

The most significant key is reducing Scope 2; therefore, TOK changed over 70% of purchased electricity at all major domestic sites to renewable energy sources in September 2021, which resulted in a reduction of about 15,000 tons compared to 2019 as of 2022, and after switching to 100% in February 2023, TOK has continuously reduced emissions by about 20,000 tons annually. In the future, the company plans to reduce Scope 2 by accelerating the use of renewable energy at overseas sites, and since TOK works towards reducing Scope 1 emissions, the company will consolidate cooling source facilities and replace them with high-efficiency equipment to achieve a trade-on between *increased factory production due to business expansion* and *reduction of Scope 1 emissions*.

In building the data foundation that forms the basis for formulating the above medium-term targets, the cloud system introduced in 2022 has contributed significantly to efficient and rapid collection and centralized management of a variety of environmental data as well as efficient data analysis.

**Looking ahead and beyond 2030, simulating financial impacts include internal carbon pricing and emissions trading**

In addition, TOK has defined the applicable time axis range primarily as medium to long term (2030 to 2050), set a tentative carbon price (carbon tax) as a provisional value after achieving the aforementioned medium-term target, and calculated the financial impact based on this in preparation for the introduction of internal carbon pricing and implementation of emissions trading. In the coming years, the Group will practice disclosure at the proper time while strengthening the linkage to progress and the outlook for financial targets and production plans under the next medium-term plan, TOK Medium-Term Plan 2027 and TOK Vision 2030.

**Disclosing the expected value of the contribution to reductions through business as a social impact**

Under the material issue of *global environmental conservation considering future generations*, the TOK Group focuses on Green Energy as one of the four focus areas of business and is evolving the response to climate change risks based on global standards as described earlier as well as expanding its contribution to reductions through business to accumulate trade-ons between economic and social value thereby realizing enhanced sustainable corporate value.

**TOK photoresists contribute to $CO_2$ reduction**



Based on the original timeframe (short term = up to 2025, medium term = up to 2030, long term = up to 2050) in accordance with the ISSB S2 disclosure standards and the TCFD framework, the Group will specifically continue to contribute to the miniaturization of semiconductors and the reduction of power consumption through power semiconductors in the short, medium, and long terms while aiming for further contributions to reductions through the expansion of sales of materials for next-generation power semiconductors, such as SiC/GaN and the development and sales of materials for photoelectric fusion devices in the medium and long terms **(→ see pages 56 and 77)**.

From 2023, TOK has additionally been calculating part of the expected value of these reduction contributions and quantitatively disclosing the expected value of the social impact created together with semiconductor manufacturers through TOK products **(→ see page 17 "IMPACT ENABLER")**.

## Response to megatrends and maximized risks and opportunities

### Converting the strengthening of chemical substance regulations into business opportunities with biodiversity in mind

Semiconductor-related industries use a diverse range of old and new chemical substances in response to the continuous need for new technological innovation and the stable supply of high-quality products. On the other hand, chemical substance management regulations and laws applicable to the environment and safety become increasingly more stringent in line with surging concerns over biological diversity and the interest in sustainability. Under these circumstances, the TOK Group has endeavored to comply with the EU REACH regulation*1 and other applicable laws and regulations in its efforts to support customer products in the acquisition of CE Marking*2 and other certifications. The Group has also completely eliminated the use of PFOS*3 and PFOA*4 as of March 2021. The TOK Group completely eliminated the use of PFHxS*5 in July 2022. This created a new business opportunity as one of the group advantages.

*1 This EU regulation manages the registration, evaluation, and accreditation of chemical substances through an integrated system of ensuring complete fulfillment of responsibility on the producers' part and thorough compliance with preventive principles.
*2 Marking that certifies product conformance to the essential EU requirements
*3 Perfluorooctane sulfonate
*4 Perfluorooctanoic acid
*5 Perfluorohexanesulfonic acid

**Tighter Environmental and Safety-Related Laws and Regulations, etc. across the World and Regions**

- Japan
  - Partial amendment of the Industrial Safety and Health Act (April 2023)
  - Partial amendment of the Enforcement Order of the Act on Confirmation of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (PRTR Law) (April 2023)
  - Partial amendment of the Industrial Safety and Health Act (May 2023)
  - Partial amendment of the Ordinance on the Prevention of Organic Solvent Poisoning (October 2023)
  - Amendment of "Points to note regarding the implementation of partial amendments to the Industrial Safety and Health Act (improvement of labeling and document delivery systems for chemical substances)" (January 2024)
  - Partial amendment of the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture (April 2024)
  - Partial amendment of the Cabinet Order for the Designation of the Poisonous and Deleterious Substances (May 2024)
- Taiwan
  - Partial amendment of the Toxic and Concerned Chemical Substances Control Act (March 2023)
  - New establishment of Principles for Toxicity and Concerned Chemical Substance Selection and Certification Work (formerly: Principles for Toxicity and Concerned Chemical Substance Selection and Certification Work) (January 2024)
  - Partial amendment of the Management Matters Related to the Designation and Handling of Toxic Chemical Substances (May 2024)
- China
  - Partial amendment of the Foreign Trade Law (January 2024)
  - Partial amendment of the Regulations on the Administration of Precursor Chemicals (January 2024)
- USA
  - Amendment of the Reporting Rules for PFAS to the Toxics Release Inventory (October 2023)
  - New establishment of PFAS reporting and record-keeping rules (November 2023)
  - Addition of certain organic fluorine compounds (PFAS) to the Significant New Use Rule (SNUR) (January 2024)
  - Enactment of PFAS regulation bills in Maine and Minnesota
- Europe
  - Draft PFAS regulation (slated for 2026)
  - The European Chemicals Agency (ECHA) list of chemical substances of very high concern
- South Korea
  - Partial amendment of the Chemical Substances Control Act (June 2023)
  - Partial amendment of the Act on Registration and Evaluation of Chemical Substances (January 2025)

### Responding to growing PFAS-free needs with world-leading high purity processing technologies

Regarding PFAS, which is widely used in the semiconductor materials of photoresists and semiconductor manufacturing equipment, while postponement of the phase-out timing for semiconductor-related uses in the EU is expected, regulations are progressing in other countries, and replacement with alternative substances is becoming more important as a competitive strategy. Therefore, the TOK Group is accelerating its development of PFAS-free products by leveraging its world-leading high purity processing technologies that the company has been refining since its founding with the aim of responding to societal expectations while accumulating new trade-ons between social and economic value.

### Environmental Policy

**TOK Group strives to do businesses by achieving a sustainable society through investing appropriate management resources and ensuring health, safety and an appropriate environment through the Responsible Care Initiatives*.**

- Complies with all environmental laws and regulations in each country and region in which we operate.
- Strengthens the safe-and-environmentally-friendly handling and management of chemical substances.
- Promotes efficient use, reduce, reuse, and recycling of resources.
- Improves energy-saving and global warming prevention activities.
- Promotes environmental pollution prevention activities.
- Promotes a healthy biodiversity.

* Responsible Care Initiatives: to ensure the environment, health, and safety related to all processes of chemical substances from development, manufacturing, distribution, use, final consumption, and final disposition.

### Occupational Health and Safety Policy

**TOK Group, as prioritizing workers'* health and safety, fosters safety cultures by preventing accidents, disasters, and illnesses in the workplace.**

- Complies with all laws related to occupational health and safety in each country and region.
- Reduces risks by completing job hazards analysis.
- Provides comprehensive education and training for employees.
- Strives to strengthen our safety and disaster prevention systems for the purpose of minimizing and mitigating damage for accidents, disasters, or any other unforeseen event.
- Makes effective and continuous improvements by investing appropriate resources.

* Workers: any and all labor providers to TOK.

#### Strengthen BCP measures for the time when water risks materialize

Water is important as an indispensable natural capital resource for the semiconductor and related industries, including TOK, and water risks surrounding the semiconductor and related industries are increasing, such as the growing demand for server cooling water from the expansion of the generative AI market. Therefore, the TOK Group focuses on reducing water risks at all global sites.

In Taiwan, where the largest customers are located and which specifically accounts for the largest regional sales at 35% (as of December 2023), TOK refined its BCP measures in 2022 for times when water shortages materialize because such shortages have become more serious in recent years as a result of global warming. At the Koriyama plant, one of the main domestic factories, TOK installed new pure water production equipment with high yields in 2023 to reduce water use through the centralized supply of pure water. The TOK Group will continue to reduce water risks to mitigate operational stoppage risks and fulfill its supply responsibility as the world's top market share manufacturer of photoresists for semiconductors.

## TOK Medium-Term Plan 2024, material issues, and initiatives toward TOK Vision 2030

#### Accelerating human-friendly smart factory initiatives to strengthen production capacity and improve employee engagement

The TOK Group revised the TOK Vision 2030 in February 2024 and is now continuing the largest-ever capital investment to build production capacity while focusing on Strategy 4 of the TOK Medium-Term Plan 2024 to *improve employee engagement and promote people-oriented management*, which is closely linked to the material issue of pursuing human capital happiness, while also promoting human-friendly smart factory initiatives as the key measure for the environment and occupational safety and health.

Specifically, the newly completed Aso Kumamoto site, a new manufacturing base for high-purity chemicals, has been equipped with state-of-the-art automation equipment and robotic process automation (RPA) and is scheduled to start operations in 2025 as a smart factory that is highly efficient and human friendly. Additionally, the world's largest new photoresist manufacturing building under construction at the Koriyama plant, which aims to start operations in 2026, will realize the world's highest quality and high production efficiency as well as accelerate human-friendly smart factory initiatives to create an environment where diverse human capitals can demonstrate their capabilities regardless of age, gender, or nationality.

#### Focusing on further fostering of safety awareness under the material issue of supply chain sustainability

In terms of occupational safety and in addition to improving facilities on the hardware side, TOK is strengthening efforts on the software side by identifying issues at each site and sharing accident cases to eradicate occupational accidents.

In 2023, the number of occupational accidents did not decrease despite focusing on "safety first" and the "three realities principle" amid a lull in production following the semiconductor boom from 2020 to 2022 after the COVID-19 pandemic. In 2024 with the aim of further improving the TOK Group's safety level, TOK will focus on fostering the safety awareness of each employee while strengthening effective accident prevention measures and risk management to make the safety culture foundation more robust **(→ see page 113 "Occupational Safety and Health")**. As part of this, TOK is focusing on sharing internal knowledge to pass on the experience and insights of skilled employees regarding safety measures ("know-how" and "know-why"—intellectual capital that can immediately point out why something happens) to younger employees.

#### Strengthening the penetration of global standards including initiatives for human rights

As stated earlier, the TOK Group is pursuing global standards in all phases of its corporate activities by revising its carbon neutrality targets on a consolidated basis. In terms of initiatives for the material issue of supply chain sustainability in order to advance the supply chain from the perspectives of the environment and occupational health and safety, as well as the aspects of human rights, ethics, and management, the TOK Group promotes measures in accordance with the RBA Code of Conduct as a global standard based on its Human Rights Policy, Ethics

and Anticorruption Policy, Environmental Policy, Occupational Health and Safety Policy, and the CSR Procurement Policy established in 2020. In 2021, our main factory, the Koriyama plant, and in 2022, the Distribution Control Center obtained the highest rating (Platinum) in the RBA-VAP audit* in 2023, the Koriyama plant maintained a high rating (Gold) in the re-examination. TOK will continue to accelerate its efforts to horizontally deploy employee expertise and the insights gained at both sites to other locations.

The TOK Group acquired ISO 45001 certification in accordance with the roadmap with the goal of upgrading the entire occupational health and safety policy based on a global standard. The certification was acquired at all domestic sites in July 2023, at the Taiwan site in 2018, and at the Korean site in September 2023.

*RBA-VAP audit: Validated Audit Program conducted by Responsible Business Alliance

## External Evaluation

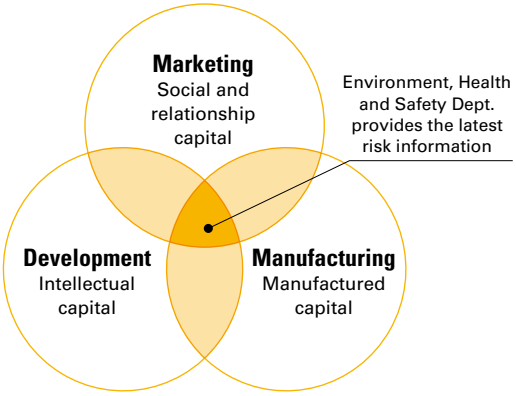
**RBA-VAP audit (2023, Koriyama Plant)**
**Gold**
**ISO 45001 certification**
**Acquired at all domestic sites and Taiwan/Korea sites**

### Accelerating innovative value creation with the interaction of capital resources

In response to megatrends, risks and opportunities, and environmental and occupational safety risks and opportunities as explained above, TOK is forming a culture that leads to new business opportunities through customer-oriented strategies based on the trifecta of marketing (social and relational capital), development (intellectual capital), and manufacturing (manufactured capital) in close linkage with the Environment, Health and Safety Dept. Regarding PFAS regulations in particular as stated earlier, replacement with alternative substances is becoming an important competitive strategy, so the Environment, Health and Safety Dept. collects the latest information and shares risk information with the core part of the trifecta while closely discussing product strategies to build the Group's new strengths centered on PFAS-free products.

The global multisite operations of customers are accelerating because of current risks in environment and occupational safety and health coupled with geopolitical risks. By disseminating a similar corporate culture to all global sites in the promotion of a local production and local consumption model and an integrated bases model, TOK is globally contributing to a sustainable future through chemistry as the TOK Purpose.

**Environment, Health and Safety Dept. closely engaged in interaction among capitals for customer-oriented strategies**




## TOK aims to further enhance corporate value by deepening dialogues with stakeholders through expanded quantitative disclosure of positive impacts.



Toru Miyano
*General Manager Environment, Health and Safety Dept.*

Under our purpose of *contributing to a sustainable future through chemistry*, the TOK Group aims to contribute to society by pursuing stakeholder happiness, and we continue to focus on minimizing negative impacts through initiatives for the material issues of supply chain sustainability and global environmental conservation considering future generations, while striving to maximize positive impacts through contributions to innovation and the creation of social value and pursuing human capital happiness aiming to maximize corporate value.

As specific measures, our basic policy in the manufacture of photoresists, high-purity chemicals, and other products places the highest priority on the establishment of a safe, comfortable work environment and the stable supply of quality needed by customers at all sites in Japan and overseas. Furthermore, we define workers as "all internal and external stakeholders who provide labor under the TOK Group's work environment," and we strive to appropriately evolve activities on the basis of the Environmental Policy and Occupational Safety and Health Policy to minimize operational stoppage risks and environmental risks thereby realizing our goal of *contributing to a sustainable future through chemistry*. In this way, TOK will reduce short-term, medium-term, and long-term growth inhibitors thereby reducing capital costs and enhancing sustainable corporate value.

In our communication with stakeholders, including shareholders and investors, we aim to enhance the quality of dialogues by conveying not only the negative impacts of $CO_2$ emissions but also increasing the resolution of such positive impacts as contributions to reductions that lead to further enhancement of corporate value.

# TCFD-based Information Disclosure for Climate Change

Tokyo Ohka Kogyo aims to achieve carbon neutrality by 2050 and so newly formulated medium-term targets in February 2024 to align its 1.5°C target with its growth strategy up to 2030. The company is striving to expand corporate value centered on minimizing absolute $CO_2$ emissions and maximizing contributions to reduction.

### The society we strive for and climate change-related material issues

TOK pursues a sustainable future filled with happiness and considers carbon neutrality as the major premise for this goal. As a starting point for long-term initiatives to achieve this goal, TOK promotes initiatives for global environmental conservation in consideration of future generations and TOK Medium-Term Plan 2024 by backcasting from TOK Vision 2030.

### Governance

The focus of the company is on the variety of measures intended to achieve the realization of carbon neutrality by 2050 through the unique sustainability governance structure of TOK, which involves collaboration between the Council of Directors (theme setting and discussions) and the Board of Directors (resolutions and monitoring) **(→ see pages 72–73)**. At the Council of Directors, the department heads, executive officers, and directors broadly discuss ESG requirements that include countering climate change. The respective executive officers take the lead in establishing initiatives for decarbonization and other sustainability issues. These initiatives are monitored by the Board of Directors, which is the decision-making body, and constantly updated in consideration of immediate climate change issues and changes in risks and opportunities.

### Risk management

Under the governance structure above and the risk management structure centered around the Risk Management Committee, which comprises the president and the general managers **(→ see pages 94–96)**, TOK will ensure the PDCA cycle of each activity countering climate change and will maintain continuous risk management with the president and chief executive officer as the chief risk management officer.

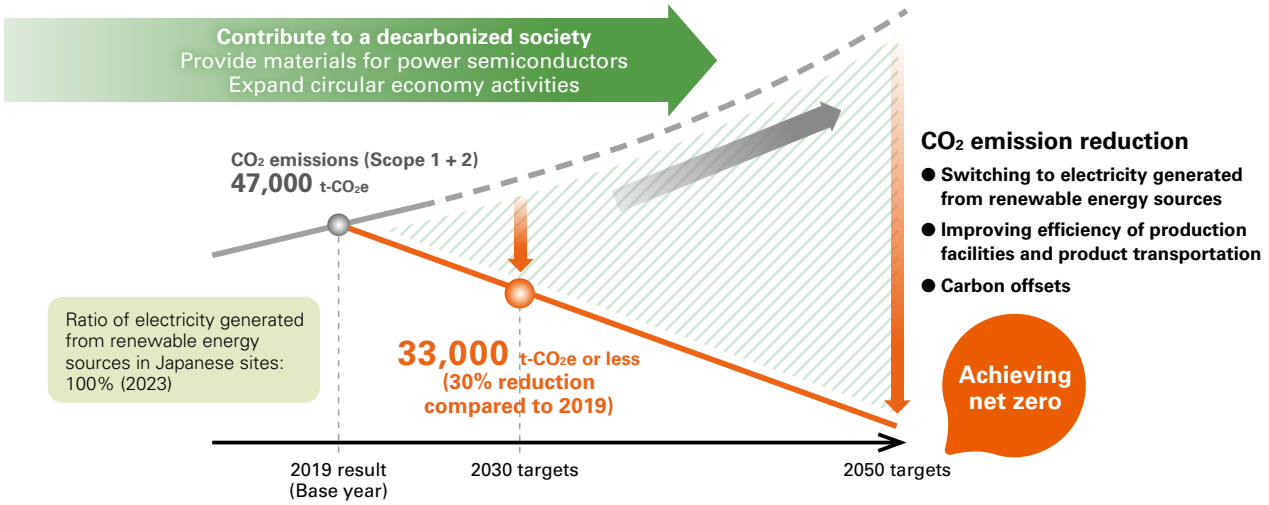
### Strategies (scenario analysis)

TOK promoted a scenario analysis of the average temperature increases by the end of the 21st century by referring to the 1.5-degree scenario and the 4-degree scenario presented by the Intergovernmental Panel on Climate Change (IPCC) and then identified the risks and opportunities for the overall group business, including the quantitative analysis of opportunities **(→ see pages 16–19, IMPACT ENABLER and the next page)**. Both in the 1.5-degree scenario and in the 4-degree scenario, the TOK Group reaffirmed that it would be reasonably possible to enhance corporate value on a medium- to long-term basis through the process above by taking advantage of the abundant business opportunities in the miniaturization and multilayer stacking of semiconductors and in the demand for power semiconductors, as well as by adequately responding to the anticipated physical risks and strengthening resilience.

### Indicators and targets

In the above medium-term targets, TOK aims to reduce absolute $CO_2$ emissions of the entire consolidated group in 2030 by 30% compared to 2019, while the factory production volume is expected to increase significantly because of the growth strategy. This aggressive target is intended to reduce more than 30% of the 2030 emissions, which are expected to increase significantly compared to 2019 if no reduction efforts are made. Additionally, TOK is also calculating the financial impacts from internal carbon pricing and emissions trading toward 2030–2050 after achieving this target, and the company plans to disclose this at the appropriate time while deepening the linkage to the progress and outlook for the growth strategies and performance targets.

**Medium-term targets for realization of carbon neutrality by 2050**



# Response to climate-related risks and opportunities (scenario analysis)

★ *Short term* is defined as until 2025, *medium term* as until 2030, and *long term* as until 2050.

| Risk type | Category | Risks on TOK business | ★ Expected apparent time range | Key initiatives (countermeasures against risks) |
|---|---|---|---|---|
| **Transition risks** Mainly assuming the 1.5-degree scenario | Policy and regulatory risks | ● Increase in costs due to carbon pricing (introduction of the carbon tax and expansion of emission rights trading) | Medium term to long term | ● Curb cost increases by accelerating the reduction of $CO_2$ emissions per base unit through shifts to more energy-efficient manufacturing equipment and the increased use of renewable energy<br>→ **See pages 72–73 and 102–103**<br>● TOK shifted 100% of its purchased electricity to renewable energy sources at all key sites in Japan in February 2023. If a carbon tax of 10,000 yen per ton is introduced in Japan in the next few years, the payment of the tax will be reduced through this shift by 10,000 yen x 20,000 tons, equaling 200 million yen<br>→ **See pages 72–73 and 102–103**<br>● TOK completed the estimation of the financial impact under the assumption of the future introduction of internal carbon pricing and implementation of emissions right trading<br>→ **See pages 72–73** |
| | | ● Increase in costs in response to more stringent policies and regulations to reduce $CO_2$ emissions in Japan and other countries where TOK has manufacturing sites | Short term to long term | ● Take the necessary action without delay through the careful collection of information and negotiations with governmental agencies in each country, thereby coping with climate change as a member of local communities<br>→ **See pages 72–73 and 102–103** |
| **Physical risks** Mainly assuming the 4-degree scenario | Acute risks | ● Damage to facilities due to an increase in natural disasters | Short term to long term | ● Take continuous precautions for water risks that have become apparent in the inundation of the TOK Technology Innovation Center as the R&D hub by a typhoon in 2019<br>→ **See pages 74 and 104–105**<br>● Emphasize BCP and resilience to natural disasters in the capital investment plan under the TOK Medium-Term Plan 2024 toward TOK Vision 2030<br>→ **See pages 74 and 95** |
| | Chronic risks | ● Increase in costs for process temperature control and product temperature control due to global warming | Short term to long term | ● Develop more efficient and more cost-effective means and methods for the control of process temperatures and product temperatures<br>→ **See pages 102–103** |
| | | ● Increase in water stress due to global warming and the difficulty in acquiring water resources | Medium term to long term | ● Implement continuous measures in Japan and overseas to minimize water consumption in production activities and to maintain and improve effluent quality<br>→ **See pages 104–105** |

| Opportunities | ★ Expected apparent time range | Key initiatives (how to grasp opportunities) |
|---|---|---|
| **Further miniaturization of semiconductors** Assuming both the 1.5-degree scenario and 4-degree scenario | Short term to long term | ● Stable supply, sales increase, development, and maintenance of the largest global market share for EUV photoresists for 7 to 2 nm processes<br>● Expected reduction in semiconductor power consumption by providing EUV photoresists for 7 to 2 nm processes (estimate for 2030)<br>**Contribution to reduction: ▲81 TWh (equivalent to 0.2% of estimated global power consumption in 2030)*1** |
| **Expansion of the power semiconductor market** Assuming both the 1.5-degree scenario and 4-degree scenario | Short term to long term | ● Maintain the largest global market shares for g-/i-Line photoresists<br>● Stably supply and increase sales of g-Line and i-Line photoresists for power semiconductors<br>→ **See pages 16–17 and 54–57** |
| **Realizing further low power consumption Increase in the need for the development of next-generation power semiconductors with lower power consumption** Assuming both the 1.5-degree scenario and 4-degree scenario | Medium term to long term | ● Strengthen the advantage in g-Line and i-Line photoresists for silicon carbide (SiC) power semiconductors as the market starts to grow and further strengthen development and marketing<br>● Reinforce the development and marketing of g-Line and i-Line photoresists for gallium nitride (GaN) gallium oxide (Ga2O3) power semiconductors<br>→ **See pages 16–17 and 54–57**<br>● Expected reduction in power in solar/wind power generation, EVs, and data centers by providing g-Line and i-Line photoresists for SiC, GaN, and other next-generation power semiconductors (estimate for 2030)<br>**Contribution to reduction: ▲127 TWh (equivalent to 0.4% of estimated global power consumption in 2030)*2** |
| **Emergence of the photo-semiconductor market due to advances in photoelectric fusion technology** Assuming both the 1.5-degree scenario and 4-degree scenario | Medium term to long term | ● Strengthen the development and sales of materials for photo-semiconductors that realize overwhelmingly low power consumption compared to conventional semiconductors<br>→ **See pages 54–57** |

*1 See the Note on page 19 *2 See Note 4 on page 17

# Messages from Outside Directors

## We will continue to promote discussions to further deepen social values.



### Ayako Ikeda

*Outside Director, Nomination and Compensation Advisory Committee Member*

This is Ayako Ikeda, became an outside director in March of this year. I will leverage my more than 40 years of experience as a lawyer and my three years as an outside director and audit committee member of a listed securities holding company to contribute to the sustainable enhancement of corporate value at TOK.

### Discuss social values that sometimes have ambiguous meanings based on my perspective as a lawyer

I am deeply impressed by how TOK has preserved the essence of its management philosophy, which was established 84 years ago by founder Shigemasa Mukai, "Create a frank and open-minded business culture, continue efforts to enhance our technology, raise the quality levels of our products, and contribute to society." TOK continues to pass on this DNA to every corner of its worksites and continues to achieve trade-ons between social and economic value based its Purpose: "Contribute to a sustainable future through chemistry." While the business centered on photoresists may change in the long and super-long term because of technological transitions and the flow of the times, I believe it is important that the DNA I mentioned earlier continues to be inherited unchanged.

The current capital markets pay great attention to the capital efficiency and cash generation capabilities, as well as social value creation capabilities and underlying philosophy systems of companies. TOK's value creation and presence, which has its own Management Philosophy and Purpose and has a major impact on society along with the semiconductor industry, show one model that meets investors' expectations in the future capital market.

However, while contributing to society and creating social value through business is a very easy-to-understand way to express our Purpose, social value is sometimes multifaceted and complex, and I believe that calm discussion is always necessary by looking at reality and regarding what the company should prioritize (which social value to prioritize). As I fulfill my role as an outside director, I will always keep in mind the company's Purpose because I intend to raise issues from different perspectives as a legal expert, especially in discussions related to social value, social justice, and material issues. I understand that this point is also expected of me as a lawyer appointed an outside director.

### Pursue optimal solutions for different governance issues

In the various meetings of the Board of Directors, all participants speak freely without hesitation, and truly frank and open-minded discussions are held. I appreciate that the company's recent governance reforms of increasing the number of outside directors and discontinuing takeover defense measures are progressing in a desirable direction.

The formulation of a succession plan, which is one of the company's governance issues, is still in progress, but specific initiatives for the regular education of candidates are already being implemented. Regarding this and other company-wide and systematic schemes, I believe we should deepen our consideration in the future, keeping in mind that it is important for such consideration to actually function as the company's unique succession plan while referring to examples from other companies.

Regarding another issue, the reduction of cross- shareholdings, I believe we should proceed while specifically examining and verifying the purpose of such holdings and whether the benefits and risks associated with holding are commensurate with the cost of capital.

I also believe that sustainability issues are an important perspective, especially for manufacturing companies like ours. Human rights due diligence in the supply chain is one part of this, and I intend to address such issues using my experience as a lawyer.

# Messages from Outside Directors

## As an internal control expert, I will minimize the realization of risks associated with rapid growth.



**Noriko Sekiguchi**
*Outside Director, Audit and Supervisory Committee Member, and Nomination and Compensation Advisory Committee Member*

### Strengthening diversity as a source of innovation essential for business strategy

Since diversity is an indispensable source of innovation for our business strategy, two of the Four Human Capital Strategies are defined as "Forming a diverse talent pool" and "DE&I" in the HR Strategy Roadmap until 2030 formulated at this time, and we are focusing on diversity not only among employees but also in management. We have achieved certain results by increasing the number of female outside directors by one and appointing the first female executive officer. Although we have already implemented all seven actions set forth in the Ministry of Economy, Trade and Industry's Diversity 2.0 Action Guidelines, I believe that Action ⑤ Behavioral and awareness reform of managers and ⑥ Behavioral and awareness reform of employees are important for further progress. We will continue to evolve and expand training sessions, seminars, and workshops. In some cases, one idea might be to assign DE&I personnel to each department with clear roles and consider the workload due to concurrent duties in personnel evaluations. Regarding appointment of international directors, which is another diversity issue, inviting foreign nationals as outside directors is one option, but considering that the ratio of international employees is 24.3% (consolidated, 2023), I believe internal appointment is preferable. Since the company has several foreign nationals as directors who are to be executive officers and other officers in the nearest future, I will propose setting a KPI for international officers as a new material issue goal.

### Strictly monitor from the perspective of people and organization to minimize the realization of risks associated with rapid growth

The semiconductor industry, including our company, is attracting so much social attention that there is hardly a day without news about it. As the world's top share manufacturer of photoresists for semiconductors, our company has increased sales by 1.5 times in the last five years and is currently acquiring factory sites in Japan and overseas to prepare for the further expansion of production. Accordingly, the number of employees is steadily increasing, and while I feel joy that we are a company selected by job seekers, I recognize that the potential risks associated with the difficulty in paying attention to each individual as an internal system spans the multiple areas of labor safety, employee engagement, internal control, and compliance.

With a view to medium- to long-term business expansion and future growth, is there any distortion in the organizational hierarchy of the departments to which these employees are assigned to as a result of actively recruiting new graduates and mid-career hires? Are there any assignments that exceed the number of subordinates that one manager can pay attention to? Fully recognizing that engagement is a trust relationship between employees and the company, are superiors properly receiving and responding to messages from their subordinates? Have the purpose and necessity of internal control and the message of strict compliance penetrated into the deep consciousness of each individual? From the perspective that misconduct and harassment are committed by people, I intend to continue monitoring from the perspective of people and the organization.

As one of the risks that has materialized recently, I am concerned that the number of labor accidents is not decreasing. In April 2023, we issued a state of emergency to raise awareness and to focus on occupational safety and health throughout the organization, including implementing safety and health education and risk assessments and thoroughly implementing the 5S system; however, in 2023, there was 1 accident resulting in lost work time and 13 accidents not resulting in lost work time, the highest numbers in recent years. From April 2024, chemical substance regulations will be strengthened because of the revision of the Industrial Safety and Health Act, and further efforts will be necessary, especially regarding the handling of chemical substances. Chemical burns can cause serious damage depending on the affected area, and not only should thorough use of protective equipment be ensured but I believe we should review the proper wearing rules again by listening to voices from the field. As stated in the Corporate Governance Code, consideration for the work environment is one of the most important items in making sustainability governance effective. As an Audit and Supervisory Committee member, I will visit sites to check the situation, and I will demand that the heads of each site walk through the sites more than ever and supervise employees more than ever.

# Messages from Outside Directors

## Toward the realization of TOK Vision 2030, we will focus on further governance reforms.




**Kazuo Ichiyanagi**

*Outside Director, Audit and Supervisory Committee Member, and Nomination and Compensation Advisory Committee Member*


### Reaffirming that we are a company that truly wishes for the happiness of employees

The Tokyo Ohka Global Employees Shareholding Association plan which was introduced in August 2023 and was based on President Taneichi's own proposal and discussed by the Board of Directors, is one of the advanced cases that still have few examples of introduction by Japanese companies, and I recognize it as an excellent method of enhancing employee engagement and happiness at each overseas base.

In response to the halfway results of the 2023 employee engagement survey, we held a discussion camp with all officers participating where we discussed result analysis and future strengthening measures. We had specific and in-depth discussions from the perspective of diverse employees on the frontlines, such as enrichment of career development support that can support employees' self-realization, mechanisms for realizing expectations from stakeholders such as customers, superiors, and colleagues, and how to prevent the occurrence of Unmotivated employees, and I once again recognized that our company truly wishes for the happiness of employees and acts accordingly.

### Governance reform—achievements and challenges so far

The company's recent governance reforms are in line with both the original purposes of governance, prevention of misconduct, and strengthening profitability, and I believe that trust relationships and social credibility with the various stakeholders, including shareholders and investors, employees, customers, business partners, government, and local communities have increased. In particular, I recognize that the establishment of the Nomination and Compensation Advisory Committee, which strengthened the involvement of independent outside directors who can calmly monitor management policies from an external perspective without any conflicts of interest with the company, the increase in the number of independent outside directors who make up the majority of that committee, and the transition to a company with an Audit and Supervisory Committee have led to the steady evolution of governance. Also, I am confident that the series of governance reforms, such as the appointment of non-executive directors who, while being internal directors, do not execute business and can calmly observe and advise on the execution status that outside directors find difficult to know about, will lead to further trust from stakeholders and the strengthening of fundraising capabilities, which will greatly support the achievement of TOK Vision 2030.

On the other hand, the succession plan, which is an immediate governance issue, is being developed while carefully considering matters by the Nomination and Compensation Advisory Committee based on the Seven Steps booklet of the Practical Guidelines for Corporate Governance Systems in terms of the aspects of the selection of successor candidates by outside directors and formulation of development plans.

Regarding another governance issue, the reduction of cross-shareholdings, as an interim next-best measure, we regularly calculate business synergies for each individual stock and verify whether to hold them in accordance with the basic policy stipulated in the Corporate Governance Guidelines while advancing discussions towards prompt sale as much as possible. We also strictly check that cross-shareholdings do not hinder growth investments (human capital investments, capital investments, R&D investments). I will also propose adding to the securities report that we will not hinder the sale of shares if a cross-shareholder indicates the intention to sell. In particular, while we have set reduction targets for absolute emissions of Scope 1 and 2 on a consolidated basis as an interim target by 2030 towards carbon neutrality in 2050, the reduction targets for Scope 3 currently being formulated could be a major factor in the status of cross-shareholdings. Therefore, I intend to work on this as one of the important sustainability issues.

# Messages from Outside Directors

## I will monitor efforts towards sustainability and encourage challenges towards high goals.



**Hisashi Ando**
*Outside Director, Audit and Supervisory Committee Member and Nomination and Compensation Advisory Committee Chairman*

### Governance reform—achievements and challenges so far

With the transition to a company with an Audit and Supervisory Committee from 2023, I recognize that the unity of audits and the Board of Directors has increased, and the monitoring function has been strengthened since audits are now conducted by Audit and Supervisory Committee members, who are mainly outside directors with voting rights. Because the audit results of the appropriateness and legality of business execution can be directly reflected in the Board of Directors, it leads to improved management transparency and governance. The Audit and Supervisory Committee consists of accounting experts and those with experience in company management and factory and site management, and I recognize that we can audit from a broader perspective. I feel that I have more opportunities to directly touch on the thoughts of employees and sites at each business location through audits, and I can attend meetings of the Board of Directors with a more on-site sense.

Also, I consider the establishment of the ERM Department from 2024, which comprehensively and inclusively grasps and manages all risks from a company-wide perspective, to be an effective measure. The risks surrounding companies are diversifying and are not limited to our company; consequently, it has become difficult to implement control only at the committee level. Therefore, I believe it is very significant that we have transitioned to a system that promotes enterprise risk management (ERM) by a specialized organization. In any case, the roles and responsibilities of outside directors are increasing with strengthened governance, and I intend to continue to focus on strengthening the company's governance through the Board of Directors, audits, and the Nomination and Compensation Advisory Committee. In particular, in FY 2024, we confirmed the status of sustainability efforts as a priority item for audits, and in the Nomination and Compensation Advisory Committee, which I chair, we will work to clarify the succession plan as the most important theme.

### Now is the time to strengthen intellectual and human capital

While we continue to actively invest capital in achieving the upwardly revised TOK Vision 2030, competitors are also actively investing, and I believe the competitive environment will become increasingly severe. Of course, we will continue to refine our customer-oriented strategy based on the trifecta of marketing (social and relational capital), development (intellectual capital), and manufacturing (manufacturing capital), which is a unique strength of the company, but I believe it is important to strengthen intellectual capital to win the fierce technological innovation competition, and to strengthen the human capital that supports it. Naturally, we must work to always maintain technological superiority, not only with internal accumulated technologies but also open innovation and utilization of materials informatics (MI), but how to utilize these intellectual assets and maintain competitive advantage will become increasingly important. Also, as the chairman of the Nomination and Compensation Advisory Committee, I will focus on strengthening internal human capital that support these efforts, as well as on improving diversity and engagement and pursuing happiness so that each human capital can interact and create innovation while fully demonstrating their abilities.

### Propose that we continue to be a company that sets high goals and challenges itself to achieve them

As mentioned earlier, we are currently strengthening the monitoring of sustainability efforts. Regarding efforts towards the material issue of global environmental conservation considering future generations, there are some items that have not reached the initial targets, while there are steadily progressing measures for the 100% renewable energy for purchased electricity at all major domestic sites and forest conservation activities. While promoting strengthening measures after thoroughly analyzing the factors for not achieving targets, the interim target for 2030 towards carbon neutrality in 2050 that we formulated at this time is a plan to minimize $CO_2$ emissions, which are negative outcomes that damage corporate value on an absolute and consolidated basis. We will work towards this as a must-achieve goal, and for future Scope 3 target setting and carbon neutrality in 2050, we will thoroughly discuss and cooperate with internal and external stakeholders and strive to achieve the targets while creating innovation. Not simply limited to this matter, I will propose that we continue to be a company that always sets high goals and challenges itself to achieve them.

# Directors and Executive Officers




## Directors

### Noriaki Taneichi

❶ Representative Director,
President & Chief Executive Officer
Nomination and Compensation Advisory Committee Member
(Number of Shares Owned: 84,000)

1986 Joined the Company
2009 General Manager, Marketing Development Dept.
2011 General Manager, New Business Development Dept.
2015 Executive Officer; Deputy Division Manager, New Business Development Div.
2017 Director; Executive Officer; Division Manager, New Business Development Div.
2019 Representative Director, President, and Chief Executive Officer (to the present)

### Harutoshi Sato

❷ Director
(Number of Shares Owned: 55,000)

1984 Joined the Company
2004 General Manager, Quality Assurance Dept.
2007 General Manager, Advanced Material Development Dept. 2
2008 General Manager, Advanced Material Development Dept. 1
2009 Executive Officer; Deputy Division Manager, Research and Development Div. and General Manager, Advanced Material Development Dept. 3
2011 Officer; Deputy Division Manager, Research and Development Div. and General Manager, Advanced Material Development Dept. 1
2012 Director; Executive Officer; Division Manager, Research and Development Div.
2017 Director; Managing Executive Officer; Division Manager, Research and Development Div.
2019 Director; Senior Managing Executive Officer; Division Manager, Research and Development Div.
2022 Director (to the present)

### Yusuke Narumi

❸ Director and Executive Officer
Division Manager, New Business Development Div.
(Number of Shares Owned: 25,000)

1988 Joined the Company
2012 General Manager, Marketing Department
2019 General Manager, Display and PV Panel Material Marketing Department
2019 General Manager, Imaging Material Marketing Department
2020 Officer; Division Manager, New Business Development Div.
2021 Director; Executive Officer; Division Manager, New Business Development Div. (to the present)

### Kosuke Doi

❹ Director and Senior Managing Executive Officer
Division Manager, Marketing Div. and Research and Development Div.
(Number of Shares Owned: 38,000)

1986 Joined the Company
2009 General Manager, Advanced Material Development Dept. 1
2011 President and Director of Tokyo Ohka Kogyo America, Inc.
2016 Executive Officer (President and Director of Tokyo Ohka Kogyo America, Inc.)
2019 Executive Officer; Division Manager, New Business Development Div.
2020 Managing Executive Officer; Division Manager, Marketing Div.
2022 Director; Managing Executive Officer; Division Manager, Marketing Div. and Division Manager, Research and Development Div.
2023 Director; Senior Executive Officer; Division Manager, Marketing Div. and Division Manager, Research and Development Div. (to the present)

### Hirotaka Yamamoto

❺ Director and Executive Officer
Division Manager, Manufacturing Div.
(Number of Shares Owned: 19,000)

1992 Joined the Company
2013 Plant Manager of TOK Advanced Materials Co., Ltd.
2019 Deputy Division Manager, Corporate Planning Div.
2020 Executive Officer; Division Manager, Corporate Planning Div.
2023 Director; Executive Officer; Division Manager, Manufacturing Div. (to the present)

### Ayako Ikeda

❻ Outside Director
Nomination and Compensation Advisory Committee Member
(Number of Shares Owned: —)

1984 Registered as a lawyer/Joined Daini Tokyo Bar Association Harago Law Office (currently Haragosogo Law Offices)
1990 Steptoe & Johnson Law Firm, USA
1991 Obtained New York State Bar qualification
1992 Hamada & Matsumoto Law Office (currently Mori Hamada & Matsumoto Law Office) (to the present)
2002 Instructor at Legal Training and Research Institute (in charge of civil advocacy)
2006 Deputy Secretary General of Japan Federation of Bar Associations
2015 Executive Director of Japan Federation of Bar Associations
Vice Chair of the Daini Tokyo Bar Association
2021 Outside Director (Audit and Supervisory Committee Member) of Tokai Tokyo Financial Holdings, Inc. (to the present)
2024 Director (Outside Director) of the Company (to the present)

## Skills and experience required for directors of TOK

| Name | Position | Outside | Nomination and Compensation Advisory Committee | Skills and experience | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Management experience in other corporate groups | Research & development/ Technology/ Production | Sales/Marketing | Legal/ Compliance/Risk management | Finance/ Accounting | Global experience |
| Noriaki Taneichi | Representative Director, President & Chief Executive Officer | | ● | | ● | ● | | | ● |
| Harutoshi Sato | Director | | | | ● | | | | ● |
| Yusuke Narumi | Director | | | | ● | ● | | | ● |
| Kousuke Doi | Director | | | | ● | ● | | | ● |
| Hirotaka Yamamoto | Director | | | | ● | | | | ● |
| Ayako Ikeda | Director | ● | ● | ● | | | ● | | ● |
| Nobuo Tokutake | Director (Standing Audit and Supervisory Committee Member) | | | | ● | | | | ● |
| Noriko Sekiguchi | Director (Audit and Supervisory Committee Member) | ● | ● | ● | | | | ● | |
| Kazuo Ichiyanagi | Director (Audit and Supervisory Committee Member) | ● | ● | ● | ● | ● | | | ● |
| Hisashi Ando | Director (Audit and Supervisory Committee Member) | ● | ● | ● | ● | ● | | | |

### Nobuo Tokutake

❼ Director
Standing Audit and Supervisory Committee Member
(Number of Shares Owned: 12,000)

1984 Joined the Company
2003 Chairman and President of TOK Taiwan Co., Ltd.
2007 General Manager, Quality Assurance Dept.
2009 Senior General Manager, Production Control Dept. and General Manager, Quality Assurance Dept.
2013 Executive Officer; Deputy Division Manager, Manufacturing Div.
2015 Director; Officer; Division Manager, Manufacturing Div.
2020 Standing Audit and Supervisory Board Member
2023 Director (Standing Audit and Supervisory Committee Member) (to the present)

### Noriko Sekiguchi

❽ Outside Director (Head of Noriko Sekiguchi Certified Public Accountant Office)
Audit and Supervisory Committee Member
Nomination and Compensation Advisory Committee Member
(Number of Shares Owned: 1,000)

1994 Registered as a certified public accountant
2002 Reregistered as a certified public accountant
2010 Representative of Sekiguchi CPA Office (currently Sekiguchi Noriko CPA Office) (to the present)
2011 Contract Monitoring Committee Member of JICA
2011 External Assessment Committee Member of JICA
2012 Registered as certified tax accountant
2015 Director (Outside Director) of the Company
2019 Executive Officer of Chifure Holdings Corporation
2021 Audit and Supervisory Board Member of Oji Holdings Corporation (Independent Outside Audit and Supervisory Board Member) (to the present)
2022 Corporate Auditor (Outside Corporate Auditor) of Ryoden Corporation (to the present)
2022 Auditor of JICA (to the present)
2023 Director (Audit and Supervisory Committee Member) (Outside Director) of the Company (to the present)

### Kazuo Ichiyanagi

❾ Outside Director
Audit and Supervisory Committee Member
Nomination and Compensation Advisory Committee Member
(Number of Shares Owned: 3,000)

1977 Joined Teikoku Tsushin Kogyo Co., Ltd.
2005 Executive Officer in charge of Development Department; General Manager, Development Department of Teikoku Tsushin Kogyo Co., Ltd.
2008 Executive Officer supervising Development Technology and in charge of Development Department of Teikoku Tsushin Kogyo Co., Ltd.
2008 Executive Officer supervising Development Technology of Teikoku Tsushin Kogyo Co., Ltd.
2009 Director; Executive Officer supervising Development Technology of Teikoku Tsushin Kogyo Co., Ltd.
2009 Director; Executive Officer supervising Development Division of Teikoku Tsushin Kogyo Co., Ltd.
2010 President of Teikoku Tsushin Kogyo Co., Ltd.
2019 Director and Advisor of Teikoku Tsushin Kogyo Co., Ltd.
2020 Director (Outside Director) of the Company
2023 Director (Audit and Supervisory Committee Member) (Outside Director) of the Company (to the present)

### Hisashi Ando

❿ Outside Director
Audit and Supervisory Committee Member
Nomination and Compensation Advisory Committee Chairman
(Number of Shares Owned: 3,000)

1979 Joined Sony Chemical Co., Ltd. (currently Dexerials Corporation)
2006 Sony Chemical & Information Device Corporation (currently Dexerials Corporation) Corporate Executive, Kanuma Plant Manager
2007 Executive Officer; Kanuma Plant Manager of Sony Chemical & Information Device Corporation
2010 Director; Kanuma Plant Manager of Sony Chemical & Information Device Corporation
2012 Director and Executive Officer; Senior General Manager, Research and Development Division; Kanuma Plant Manager of Dexerials Corporation
2014 Director and Senior Executive Officer; Senior General Manager, Research and Development Division; Procurement, New Business Planning and Promotion of Dexerials Corporation
2016 Director and Managing Executive Officer; Officer in charge of Manufacturing and Technology; Corporate R&D Division Head of Dexerials Corporation
2016 Representative Director and Senior Managing Executive Officer; Corporate R&D Division Head of Dexerials Corporation
2019 Representative Director and Senior Managing Executive Officer of Dexerials Corporation
2019 Director and Managing Executive Officer; Lieutenant President of Dexerials Corporation
2020 Director and Managing Executive Officer; Lieutenant President of Dexerials Corporation; President of Dexerials America Corporation
2020 Technical Advisor of Dexerials Corporation
2022 Director (Outside Director) of the Company
2022 Director (Outside Director) of AeroEdge Co., Ltd. (to the present)
2023 Director (Audit and Supervisory Committee Member) (Outside Director) of the Company (to the present)

# Executive Officers

**Gitae Kim**
Managing Executive Officer
TOK Advanced Materials Co., Ltd.
President

**Okikuni Takase**
Executive Officer
Division Manager,
Accounting and Finance Div.

**Shoji Otaka**
Executive Officer
Division Manager,
Corporate Planning Div.

**Yuichi Honma**
Executive Officer
Division Manager,
General Affairs Div.

**Shinichi Isogai**
Executive Officer
Division Manager,
IT and Digital Div.

**Motoko Samezawa**
Executive Officer
Division Manager,
Human Capital Div.

**Tsukasa Honkawa**
Executive Officer
TOK
Engineering Co., Ltd. President

**Naoki Watanabe**
Executive Officer
TOK China Co., Ltd.
Chairman and President

**Kazuyuki Shiotani**
Executive Officer
Tokyo Ohka Kogyo America, Inc.
President

**Atsushi Sawano**
Executive Officer
TOK Taiwan Co., Ltd.
Chairman and President

**Katsumi Ohmori**
Executive Officer
Deputy Division Manager,
Research and Development Div.

**Naoki Tatsuno**
Executive Officer
Deputy Division Manager,
Marketing Div.

# Corporate Governance

## Further strengthen corporate governance to sustainably enhance corporate value.

## TOK's Path to Stronger Corporate Governance

| | |
|---|---|
| 2003 | ● Executive officer system introduced ● Number of directors adjusted appropriately |
| 2006 | ● Selected one outside director for the first time ● Tenure of directors shortened from two years to one year |
| 2013 | ● Added one outside auditor, bringing the total to three |
| 2015 | ● Appointed a (female) outside director bringing the total to two |
| 2018 | ● Established the Nomination and Compensation Advisory Committee |
| 2019 | ● Appointed a chairperson to chair the Board of Directors ● Formulated the Corporate Governance Guidelines |
| 2020 | ● Added one outside director bringing the total to three<br>● Introduced a new remuneration system for directors with ROE and other evaluation indicators |
| 2021 | ● Resolved to discontinue anti-takeover measures |
| 2022 | ● Appointed four outside directors with an increase by one; elected one non-operating director<br>● Introduced an employee engagement indicator into the evaluation of the remuneration system for officers |
| 2023 | ● Shifted to a company with an Audit and Supervisory Committee |
| 2024 | ● Appointed a (female) outside director ● Appointed first female executive officer<br>● Established a new ERM department |

## Basic Concept

The TOK management vision has been to become "The e-Material Global Company™" of contributing to a sustainable future through chemistry under its management principles since the establishment of TOK by creating a frank and open-minded business culture, continuing its efforts to enhance technology, raising the quality levels of our products, and contributing to society. TOK believes that realizing this will lead to benefits shared by shareholders and all other stakeholders and improve its corporate value.

The company strives to realize its management vision by placing the enhancement of corporate governance as one of the most important issues, by ensuring transparency and the solidity of management and efficiency, and by expediting the decision-making process.

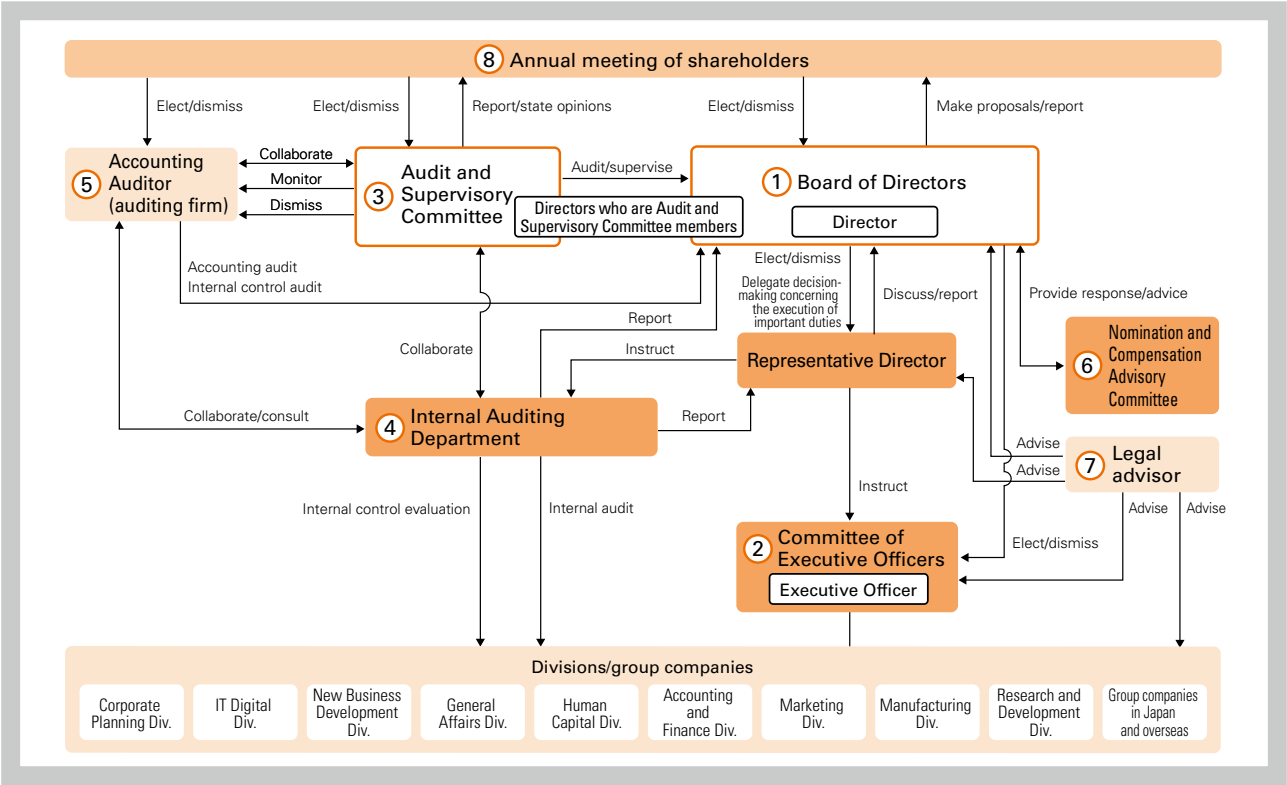
TOK promotes the enhancement of corporate governance toward the establishment of a resilient organization as a material issue, and as part of the strategies under the TOK Medium-Term Plan 2024: section 5, "Establish a sound and efficient management foundation". The Company promotes activities in accordance with the TOK Corporate Governance Guidelines that indicate its basic policies and approaches to continuously improve corporate governance.

→ Tokyo Ohka Kogyo Corporate Governance Guidelines
https://www.tok.co.jp/application/files/3816/8255/6695/20230331-2.pdf

## Type of System

Based on a resolution adopted at the 93rd general meeting of shareholders that convened on March 30, 2023, TOK shifted to a company with an Audit and Supervisory Committee. The shift was made because it is considered the most effective for the enhancement of corporate governance and to achieve more transparent management through the Audit and Supervisory Committee. A majority of members are independent outside directors who audit and supervise the legitimacy and validity of the execution of duties, while establishing a structure that more accurately caters to the expectations of stakeholders in Japan and overseas, as well as to enable the delegation of the executive decision-making authority of the Board of Directors to directors, thereby strengthening management with more agile managerial decision-making and execution under appropriate supervision by the Board of Directors.

**Corporate Governance Structure Diagram (As of March 28, 2024)**




## Directors/Board of Directors Diagram ①

One non-operating director and four independent outside directors were appointed in order to increase the transparency of the Board of Directors and to strengthen its oversight function. As a result, outside directors account for more than one-third of all ten directors.

In principle, the director system has a flat, simplified structure of two layers: the representative director and directors. This creates a framework that allows the Board of Directors to fulfill its primary responsibilities of effectively making management decisions and supervising the company's management.

As of March 28, 2024, the Board of Directors is chaired by Director and President Noriaki Taneichi and consists of ten directors: six directors who are not Audit and Supervisory Committee members, including one outside director and one non-operating director, with four directors who are Audit and Supervisory Committee members, including three outside directors. The Board of Directors meets once a month on a regular basis and holds extraordinary meetings as required. The meetings are held to make decisions on important matters with regard to business execution with the goal of supervising the business duties executed by the representative director and the other directors.

## Assessment of the Effectiveness of the Board of Directors

The directors conduct assessments and hold discussions at meetings of the Board of Directors using an anonymous self-evaluation questionnaire for the composition of the Board of Directors for rating the effectiveness of the Board of Directors, information related to the Board of Directors, the decision-making process, and external communications. This offers an analysis and assessment of the effectiveness of the Board of Directors as a whole.

**[Evaluation of the Board of Directors for the fiscal year ended December 31, 2022, and improvements to identified issues]**

We made improvements regarding discussions on ① deepening company-wide management issues, ② reviewing deliberation time, ③ analyzing management risks, ④ reviewing deliberation items, and ⑤ creating easy-to-understand materials and streamlining materials, which were issues noted in the previous year's Board of Directors evaluation.

**[Revision of the questionnaire for the Board of Directors evaluation for the fiscal year ended December 2023]**

In the ninth self-evaluation, questions that became obsolete were reviewed to improve the evaluation of the Board of Directors. Descriptive questions were included concerning company-wide managerial requirements as part of the further review of the questionnaire.

| Time of evaluation | December 2023 (questionnaire survey) |
|---|---|
| Evaluation item | ◆ Composition of Board of Directors<br>◆ Effectiveness of Board of Directors<br>◆ Information related to Board of Directors<br>◆ Decision-making process<br>◆ External communication |
| Evaluation results<br><br>○ Favorable/appropriate<br>▲ Requiring improvement | ○ Have an impartial composition offering inside directors with a thorough understanding of each field, and a good balance between experience and actual performance<br>○ Maintain diversity by incorporating outside directors with differing backgrounds, knowledge, and expertise<br>○ The size of the Board of Directors, frequency of meetings, matters discussed, and time spent on discussions are all appropriate<br>○ In an atmosphere of frank and open discussions, rapid decision-making has been achieved by having outside directors that can provide high levels of transparency<br>○ Self-improvement and in-house check-and-balance functions are mostly evaluated as favorable.<br>▲ There should be deeper discussions about solving the issues of business strategy, production strategy, M&A (corporate acquisition), risk management, new business development, human capital management, employee engagement, and human resource development. |
| Measures to be implemented and the matters to be examined based on the evaluation results | ① Deepening discussions on company-wide managerial requirements<br>② Deepening discussions on risk analysis<br>③ In order to improve the creation of easy-to-understand materials and to streamline existing materials, review the operation of meetings and streamline materials for agenda items, thereby enhancing discussions. |

## Establishment of the Council of Directors

The Council of Directors consists of directors, executive officers, the heads of related departments, and other members. The Council meets to discuss a reduction in the distance between the Board of Directors and employees and to achieve more transparent management. Its specific activities include the following:

- Exchange of different opinions concerning management issues through open-minded discussions
- Identifying issues and discussing how to approach management indicators and risk management
- Report the extracted direction to the Board of Directors and Committee of Officers, which leads to discussions and resolutions by the Board of Directors concerning ESG and sustainability issues and initiatives concerning material issues. In addition, based on discussions at the council, we established the ERM Department in April 2024, and the Human Capital Division and IT Digital Division in March of the same year.

## Executive Officers and Committee of Executive Officers Diagram ②

While taking steps to strengthen the functions of the Board of Directors with regard to management decision-making and supervision, TOK has the Committee of Executive Officers made up of the representative director and all officers to reinforce its business execution capabilities. The committee members include the chief executive officer, the Vice President, Executive Officer, senior managing executive officers, managing executive officers, and executive officers, which allow for their business responsibilities, capabilities, and other considerations.

As of March 28, 2024, the Committee of Executive Officers was chaired by President Noriaki Taneichi and comprised 16 executive officers, including 4 executive officers also serving as directors. In principle, the Committee of Executive Officers meets once a month on a regular basis and convenes extraordinary meetings as required. The meetings are convened to share instructions and resolutions adopted by the Board of Directors and the initiatives of each executive officer with the goal of deliberating and approving certain important decisions that are not subject to a resolution adopted by the Board of Directors.

## Audit and Supervisory Committee Diagram ③

As of March 28, 2024, the Audit and Supervisory Committee consists of four directors who are Audit and Supervisory Committee members (including three outside directors). The Audit and Supervisory Committee meets once a month on a regular basis, and holds extraordinary meetings as required, in order to discuss important audit-related matters received from Audit and Supervisory Committee members and to propose resolutions. The Audit and Supervisory Committee members attend the meetings of the Board of Directors and audit the execution of duties by the directors (excluding directors who are Audit and Supervisory Committee members) while receiving reports from the said directors and requesting explanations when necessary. The auditing complies with the Audit Standards established by the Audit and Supervisory Committee, the audit policy, and the division of duties. In addition, the Audit and Supervisory Committee discusses and exchanges opinions on enhancing the audit and supervisory functions of the Board of Directors. Also, the Audit and Supervisory Committee receives reports from the accounting auditors (auditing firm) on the execution of duties concerning accounting matters and verifies the validity of audit methods and results, requesting explanations, when necessary.

In order to improve the effectiveness of Audit and Supervisory Committee audits and ensure the smooth execution of audit duties, one person is assigned to assist the duties of the Audit and Supervisory Committee while serving in other positions.

## Internal Auditing Dept. Diagram ④

The Internal Auditing Department is under the direct control of the president. In addition to internal audits, this department offers suggestions, proposals, and advice for continuous improvement through evaluations of the effectiveness of internal controls in financial reporting.

## Accounting Auditor Diagram ⑤

The accounting auditor undertakes the accounting audits of TOK from a fair and independent standpoint. The accounting audit of TOK for the fiscal year ended December 2023 was executed by two certified public accountants: Mr. Isao

Kamishiro, a designated limited liability partner and executive member of Deloitte Touche Tohmatsu LLC., and Mr. Daijiro Furuya, also a designated limited liability partner and executive member of Deloitte Touche Tohmatsu LLC. There were nine other certified public accountants, five persons who passed the certified public accountant examination, and 23 other people who assisted in the accounting audit of TOK. The details of the remuneration paid from TOK to the accounting auditor (Deloitte Touche Tohmatsu LLC) regarding the accounting audit for the fiscal year ended December 2023 was as follows:

- Remuneration in relation to the services set forth in Article 2, Paragraph 1, of the Certified Public Accountants Act (Act No. 103 of 1948): 61 million yen

### Nomination and Compensation Advisory Committee Diagram ⑥

TOK established the Nomination and Compensation Advisory Committee to enhance corporate governance by strengthening the fairness, transparency, and objectivity of all procedures related to the nomination, dismissal, and remuneration of directors. **(→ See pages 90–93)**

As of March 28, 2024, a majority of the members of the Nomination and Compensation Advisory Committee are independent outside directors, and the Committee is chaired by an independent outside director. The chair is Hisashi Ando, an outside director, and the members are Noriaki Taneichi, the president, and Noriko Sekiguchi, Kazuo Ichiyanagi, and Ayako Ikeda, who are outside directors.

In the fiscal year ended December 2023, we selected candidates for directors and executive officers, confirmed and exchanged opinions on the compensation structure, performance-linked compensation targets, and the composition of the Board of Directors for the next term and beyond. We also discuss and exchange opinions on how to develop company officers.

### Legal Advisers Diagram ⑦

The Company concluded advisory contracts with a number of law firms and receives appropriate advice from legal advisors in situations requiring legal assessments.

### Efforts to Invigorate the Shareholders' Meetings and Facilitate the Smooth Exercise of Voting Rights Diagram ⑧

In order to facilitate the exercise of voting rights by shareholders, TOK convenes the general meeting of shareholders in March, when most other Japanese companies' shareholder meetings are not convened, sets the period for reviewing the resolutions for approval at the meeting as longer than the number of days required by law, and publishes the Notice of Convocation of the General Meeting of Shareholders on our website ahead of time, or 28 days (four weeks) before the day of the meeting. The notice is also sent out early (21 days [three weeks]) before the day of the meeting. Shareholders who cannot attend the general meeting of shareholders can exercise voting rights in writing and by electromagnetic means (including the use of a voting rights exercise platform for institutional investors). In addition, the notice of convocation is also prepared in English to help institutional investors overseas develop a better understanding. TOK also describes the reported matters using video and narration to promote the understanding of shareholders who attended the general meeting of shareholders. Also, the Notice of Convocation, Notice of Resolution, and Results of the Exercise of Voting Rights to the General Meeting of Shareholders are uploaded onto the company website for disclosure, each of which is in Japanese and English. Starting with the ordinary general meeting of shareholders convened in 2022, a participative virtual meeting style is applied to increase the opportunity for participation by distant shareholders and to improve the transparency of the meeting.

## Cooperation between the Audit and Supervisory Committee, Internal Auditing Division, and Accounting Auditor

### Internal audit and audit by the Audit and Supervisory Committee

**[Cooperation between Audit and Supervisory Committee and accounting auditor]**

The Audit and Supervisory Committee receives reports on the results of accounting audits and other work from the accounting auditor (auditing firm) four times a year. The Committee also receives an explanation of the auditing plan from the accounting auditor once a year. In addition, as part of auditing the execution of directors' duties, the Audit and Supervisory Committee accompanies the accounting auditor to the factory audits by the accounting auditor, if necessary, and can examine the auditing method of the accounting auditor. The Audit and Supervisory Committee also exchanges information and opinions with the accounting auditor when necessary.

**[Mutual coordination among supervision/audit by outside directors, internal audit, audit by the Audit and Supervisory Committee, and accounting audit, and their relationship with the internal control department]**

Outside directors supervise the execution of duties by the respective directors through participation in the sessions of the Board of Directors. In addition to the supervision, outside directors as Audit and Supervisory Committee members receive internal audit reports from the Internal Auditing Department and the accounting auditor, thereby auditing the execution of duties by directors. They also periodically exchange information and opinions with the Audit and Supervisory Committee, the Internal Auditing Department and the accounting auditor. Moreover, they receive reports as appropriate from the Internal Auditing Department regarding the evaluation of the effectiveness of internal controls over financial reporting and from the accounting auditor regarding its opinion on the internal control audit.

# Status of the Election of Outside Directors

The Company has ten directors, four of whom are outside directors.
The Company established the following criteria and policies regarding independence in the election of outside directors.

## Independence Standards for Outside Officers

**Independent outside officers under these criteria are defined as those who fulfill the legal requirements of an outside officer and who does not fall under any of the following conditions:**

a. A person who executes the business of the company or its consolidated subsidiaries (the "Group") or who did so for a period of 10 years before being appointed.
b. A person or an entity for which the Group is a major client (Note 1) or who executes the business of such a person or an entity.
c. A major customer of the Group (Note 2) or a person who executes the business of such customer.
d. A major lender of the Group (Note 3) or a person who executes the business of such lender.
e. A person who, apart from receiving officer compensation from the Group, is a consultant, accountant, or legal professional (or a person who belongs to corporate entity, association, or other such group) receiving large sums of cash or other assets (Note 4) from the Group.
f. A person to whom the above b through e applied in the previous three years.
g. A person who in the past three years has received donations from the Group averaging more than 3 million yen per year.
h. Major shareholders of the Group (Note 5) or a person who executes the business of such shareholder.
i. A person who executes the business of a company with a mutual relationship with outside officers. (Note 6)
j. A person whose spouse or a relative within the second degree of kinship comes under any one of above items a through i.
k. Regardless of the above provisions, a person for whom it is deemed likely that conflicts of interest will arise with the company.

Note 1: A person or entity for which the Group is a major client means a supplier that provides the Group with products or services where the transactions averaged more than 10.0 million yen per year over the past three years and represented more than 2% of the supplier's consolidated annual revenue in the most recent fiscal year.
Note 2: A major customer of the Group means a customer to which the Group provides products and services where the transactions averaged more than 10.0 million yen per year over the past three years and represented more than 2% of the Group's consolidated annual revenue in the most recent fiscal year.
Note 3: A major lender of the Group means a financial institution that has lent an amount equivalent to more than 2% of the Group's consolidated total assets.
Note 4: A large sum of cash or other assets means assets that averaged more than 10.0 million yen per year over the past three years and that in the most recent fiscal year had an economic value in excess of 2% of the said consultant or accounting or legal expert's consolidated annual revenue. (In the event the beneficiary of the said assets is a corporation, association, or other organization, then the assets that averaged more than 10.0 million yen per year over the past three years and that in the most recent fiscal year had an economic value in excess of 2% of the said organization's consolidated annual revenue).
Note 5: Major shareholder means a shareholder with a ratio of voting rights of more than 10%.
Note 6: A mutual relationship with outside officers means a relationship in which the person who executes the business of the Group is also an outside officer at another company and where the person who executes the business of the said outside company is an outside officer of the company.

### Reasons for the Election of Inside Directors

| Name | Reasons for election |
|---|---|
| **Noriaki Taneichi**<br>Representative Director<br>President<br>Nomination and Compensation Advisory Committee Member | Since assuming the position of representative director, president, and chief executive officer, Taneichi has led the management of the Group as its top executive and contributed to the Group's development through the measures set forth in the medium- and long-term plans. Thus, Taneichi can be expected to continue contributing to the management of the company. |
| **Harutoshi Sato**<br>Director | Sato has held important positions within the Group by serving as a representative at the U.S. subsidiary, the person responsible for quality assurance, and the person responsible for product development before assuming the position of division manager of the Research and Development Div. Because of this experience, he is well acquainted with the company's business characteristics and customers and, consequently, possesses the necessary and sufficient knowledge of such matters as important decisions made by the Board of Directors and supervision of duties executed by other directors. Thus, Sato can be expected to continue contributing to the strengthening of the oversight function of the Board of Directors by providing beneficial advice for the management of the company. |
| **Yusuke Narumi**<br>Director | Narumi has held important positions within the Group by serving as a representative at the China office as the person responsible for the sales and marketing of key products before assuming the position of division manager of the New Business Development Div. Because of this experience, he is well acquainted with the company's existing and new business fields and, consequently, possesses the necessary and sufficient knowledge of important decisions made by the Board of Directors and the supervision of duties executed by other directors. Thus, Narumi can be expected to continue contributing to the management of the company. |
| **Kousuke Doi**<br>Director | Doi has held important positions within the Group by serving as the president of the U.S. subsidiary, the division manager of the New Business Development Div., the division manager of the Marketing Div, and the division manager of the Research and Development Div. Because of this experience, he is well acquainted with the company's existing business fields and new business fields, as well as the company's business characteristics and customers, combined with the necessary and sufficient knowledge of such matters as important decisions made by the Board of Directors and supervision of duties executed by other directors. Thus, Doi can be expected to continue contributing to the management of the company. |
| **Hirotaka Yamamoto**<br>Director | Yamamoto has held important positions within the Group by serving as a representative at the U.S. subsidiary, plant manager at the South Korean subsidiary, and division manager of the Corporate Planning Div. and Manufacturing Div. He has also served as the manager of medium- and long-term planning for the TOK Group. Because of this experience, he is well acquainted with the company's business strategies/characteristics and possesses the necessary and sufficient knowledge of such matters as important decisions made by the Board of Directors and supervision of duties executed by other directors. Thus, he can be expected to continue contributing to the management of the company. |

## Reasons for the Election of Outside Directors

| Name | Reasons for election |
|---|---|
| **Ayako Ikeda**<br>Nomination and Compensation Advisory Committee Member | Ikeda is expected to supervise the company's management from an objective and specialist perspective as a legal expert based on abundant experience, considerable insight, and specialization as a lawyer and to contribute to strengthening corporate governance with advice on the general management of the company. As a member of the Nomination and Compensation Advisory Committee, she is also expected to fulfill the oversight function in the selection of executive candidates and the determination of officer compensation from an objective and neutral standpoint. |
| **Noriko Sekiguchi**<br>Nomination and Compensation Advisory Committee Member | Sekiguchi is expected to supervise and audit the company's management from an objective and neutral perspective based on her sophisticated expertise in accounting as a certified public accountant, abundant experience working in several companies, and thorough understanding of internal control in her capacity as an external committee member against fraudulent accounting at multiple listed companies. Thus, Sekiguchi can be expected to contribute to strengthening corporate governance with her advice on the general management of the company. As a member of the Nomination and Compensation Advisory Committee, she is also expected to fulfill the oversight function in the selection of executive candidates and the determination of officer compensation from an objective and neutral standpoint. |
| **Kazuo Ichiyanagi**<br>Nomination and Compensation Advisory Committee Member | Ichiyanagi is expected to supervise and audit the company's management from an objective and neutral perspective based on his abundant experience and considerable insight as an executive of a listed company and to contribute to strengthening corporate governance with his advice on the general management of the company. As a member of the Nomination and Compensation Advisory Committee, he is also expected to fulfill the oversight function in the selection of executive candidates and the determination of officer compensation from an objective and neutral standpoint. |
| **Hisashi Ando**<br>Nomination and Compensation Advisory Committee Chairman | Ando is expected to supervise and audit the company's management from an objective and neutral perspective based on his abundant experience and considerable insight as an executive of a listed company and to contribute to strengthening corporate governance with his advice on the general management of the company. As the chair of the Nomination and Compensation Advisory Committee, he is also expected to fulfill the oversight function in the selection of executive candidates and the determination of officer compensation from an objective and neutral standpoint. |

## Main Activities of Outside Directors

| Name | Attendance record and activities at Board of Directors and various committee meetings |
|---|---|
| **Hiroshi Kurimoto**<br>Outside Director | Kurimoto attended all 16 of the meetings of the Board of Directors (attendance rate 100%) held during the fiscal year ended December 2023. He expressed timely opinions as required when discussing resolutions based on his broad experience and abundant expertise as a former management executive of a listed company. He attended all six of the Nomination and Compensation Advisory Committee meetings (attendance rate 100%) mainly discussing remuneration for directors and the selection of director candidates. He appropriately fulfilled his responsibilities as chair of the Nomination and Compensation Advisory Committee by moderating the agenda and reporting to the Board of Directors. |
| **Noriko Sekiguchi**<br>Outside Director | Sekiguchi attended all 16 of the meetings of the Board of Directors (attendance rate 100%) held during the fiscal year ended December 2023. She expressed timely opinions as required at the Board of Directors and Audit and Supervisory Committee when discussing resolutions based on her professional expertise in accounting and abundant direct business experience with several companies as a certified public accountant. She also attended all six of the Nomination and Compensation Advisory Committee meetings (attendance rate 100%) mainly discussing remuneration for directors and the selection of director candidates. She appropriately fulfilled his responsibilities as a member of the Nomination and Compensation Advisory Committee, making appropriate suggestions. |
| **Kazuo Ichiyanagi**<br>Outside Director | Ichiyanagi attended all 16 of the meetings of the Board of Directors (attendance rate 100%) held during the fiscal year ended December 2023. He expressed timely opinions as required at the Board of Directors and Audit and Supervisory Committee when discussing resolutions based on his broad experience and abundant expertise as a former management executive of a listed company. He also attended all six of the Nomination and Compensation Advisory Committee meetings (attendance rate 100%) mainly discussing remuneration for directors and the selection of director candidates. He appropriately fulfilled his responsibilities as a member of the Nomination and Compensation Advisory Committee, making appropriate suggestions. |
| **Hisashi Ando**<br>Outside Director | Ando attended all 16 of the meetings of the Board of Directors (attendance rate 100%) held during the fiscal year ended December 2023. He expressed timely opinions as required at the Board of Directors and Audit and Supervisory Committee when discussing resolutions based on his broad experience and abundant expertise as a former management executive of a listed company. He also attended all six of the Nomination and Compensation Advisory Committee meetings (attendance rate 100%) mainly discussing remuneration for directors and the selection of director candidates. He appropriately fulfilled his responsibilities as a member of the Nomination and Compensation Advisory Committee, making appropriate suggestions. |

Major Decisions and Agenda of Meetings of the Board of Director in the Fiscal Year Ended December 2023 and after

- ◆ Revision of Basic Policy on Building Internal Control Systems
- ◆ Update of Corporate Governance Report and Tokyo Ohka Corporate Governance Guidelines
- ◆ Partial revision of determining important requirements (material issues) for enhancing corporate value (→ **See page 32)**
- ◆ Partial sale and continued possession of cross-shareholdings
- ◆ Stock split and partial amendment of the Articles of Incorporation accompanying the stock split
- ◆ Upward revision to the TOK Vision 2030
- ◆ Decision to construct a new inspection building for TOK Advanced Materials, Aso Kumamoto site, and a new manufacturing building for the Koriyama plant
- ◆ Formulated interim target by 2030 toward carbon neutrality in 2050
- ◆ Appointed 1 (female) outside director and one female executive officer
- ◆ Established ERM Department, Human Capital Division, and IT and Digital Division

## Remuneration for Directors and Auditors

TOK determines the basic policy of remuneration for directors as follows.

# Remuneration for Directors and Auditors

**[Basic Policy on Determination of Remuneration for Directors (Excluding Directors Who Are Audit and Supervisory Committee Members, Outside Directors, and Non-operating Directors)]**

The Company established a Nomination and Compensation Advisory Committee chaired by an independent outside director to serve as an advisory function to the Board of Directors. The committee convened to examine the preferred remuneration system for the company in consideration of the outlook for the business environment and the approach to corporate governance in Japan based on which the company's remuneration policy for directors (excluding directors who are Audit and Supervisory Committee members, outside directors, and non-operating directors; hereinafter referred to as "eligible director") has been determined as follows.

**[Basic Principle of Remuneration]**

Support the company's sustainable value creation

- · Set the composition and level of remuneration to provide healthy motivation to generate sustainable growth and corporate value in the medium to long term
- · Clarify responsibility for performance results in each fiscal year by fairly and impartially reflecting quantitative evaluations based on financial performance and the evaluation of efforts to address issues in consideration of the medium- to long-term strategy in performance-linked bonuses
- · Strive to create sustainable corporate value by continuously providing long-term incentives linked to the company's medium- to long-term performance
- · Promote the long-term holding of shares while serving in management and share interests with shareholders

Ensure objectivity and transparency in remuneration decisions

- · Determine the remuneration decision policy and the individual number of payments upon deliberation by the Nomination and Compensation Advisory Committee, which is composed primarily of outside directors
- · Employ an independent remuneration advisor and set an appropriate remuneration level in consideration of the company's business characteristics based on verification through comparisons with corporate groups of the same size using objective data from outside while considering recent public opinion
- · Proactively disclose the information necessary for stakeholders, including shareholders, in order to monitor the relationship between remuneration and corporate value

**[Remuneration Structure]**

The Company's remuneration structure for eligible directors consists of basic remuneration, which is the fixed salary, and performance-linked remuneration. Performance-linked remuneration consists of a performance-linked bonus that is linked to company-wide performance for each fiscal year, a performance-linked share-based remuneration system (performance share units) that is linked to the sustainable creation of corporate value, and a restricted share-based remuneration system that is provided to continually share value with shareholders through the continued holding of stock. An outline of each remuneration component is presented below.

## Outline of Remuneration Components

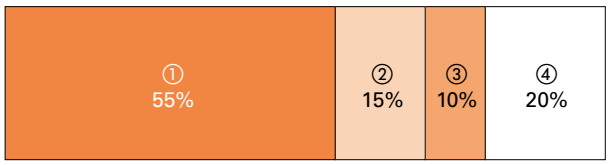
| Type of remuneration | Objective/summary |
|---|---|
| Basic remuneration | Fixed cash salary based on position |
| Performance-linked bonus | Performance-linked cash remuneration to evaluate the steady achievement of targets for each fiscal year<br>· To clarify the responsibility for results in each fiscal year, the payment rate is determined within a range from 0% to 200% of the standard amount in proportion to the degree of achievement of the targets for EBITDA margin and consolidated net sales for each fiscal year, which are key performance indicators<br>· In some cases, the payment rate determined above may be multiplied by any of 0.95, 1.00, or 1.05 depending on a discretionary evaluation by the Nomination and Compensation Advisory Committee or by the president<br>· Paid in a lump sum after the end of each fiscal year |
| Performance-lined share-based remuneration (performance share unit) | Performance-linked share-based remuneration to provide an incentive to sustainably increase corporate value<br>· The number of shares to grant is determined within the range of 0% to 200% of the standard amount (the "payment rate") and calculated as designated by the Board of Directors of the company according to the achievement rate for numerical targets, such as earnings during the performance evaluation period<br>· The Board of Directors of the company determines the indicators required for the calculation of numerical targets, performance-linked coefficients, and specific shares granted.*1<br>· The method for calculating the number of the company's shares granted and the amount of cash paid is as follows. First, the number of the company's shares to be granted to each eligible director is calculated in accordance with formula (i) below (fractions of less than 100 shares being rounded down), then the amount of cash paid to each eligible director (cash for payment of taxes) is calculated in accordance with formula (ii) below.<br>(i) Number of the company's shares granted to each eligible director<br>Standard share unit number*2 × Payment rate × 50%<br>(ii) Amount of cash to be paid to each eligible director<br>(Standard share unit number × Payment rate–Number of the company's shares calculated in (i) above) × Stock price at the time of grant<br>· Grant shares in a lump sum after the end of a performance evaluation period |
| Restricted share-based remuneration system | Share-based remuneration to further facilitate the alignment of interests with shareholders by promoting long-term holding of stock<br>· Grant restricted shares in the number determined by the company's Board of Directors each fiscal year in accordance with the rank of each eligible director<br>· The restriction on transfers is lifted when conditions are met, such as when the restriction period expires, or when an eligible director retires or resigns from the position before the restriction period expires by reason of the expiration of the term of office, death, or some other reason that the company's Board of Directors deems justifiable, and ceases to serve as a director, executive officer, employee, or any other equivalent position stipulated in advance by the Board of Directors of the company. |

*1 The performance evaluation period for the performance-linked share-based remuneration system as of March 28, 2024, is the three-year period from the fiscal year ended December 31, 2022, through the fiscal year ending December 31, 2024. With the aim of creating sustainable corporate value, the company will use the ROE target, which is a strategic indicator in the Medium-Term Plan, and an employee engagement indicator as a non-financial indicator for evaluation during this evaluation period.
*2 Determined by the Board of Directors in accordance with the rank of each eligible director

**[Payment Rate of Basic Remuneration and Performance-Linked Remuneration]**

As for the weight of each remuneration component, the ratio of basic remuneration as a fixed salary to performance-linked remuneration was set at 55:45 in order to provide a healthy incentive to generate sustainable growth and increase corporate value in the medium to long term. The ratio of basic remuneration to the performance-linked bonus (standard amount) to the performance-linked share-based remuneration (standard amount) to restricted share-based remuneration (standard amount) is set at roughly 1 (55%) to 0.27 (15%) to 0.18 (10%) to 0.36% (20%). The composition of remuneration is indicated in the figure below.

Composition of remuneration




① Basic remuneration
② Performance-linked bonus (standard amount)
③ Performance-linked share-based remuneration (standard amount)
④ Restricted share-based remuneration (standard amount)

**[Level of Remuneration]**

The level of remuneration for eligible directors is appropriately set according to each position in order to provide healthy incentives to excellent personnel who generate sustainable growth and increase corporate value in the medium to long term. The level is specified by benchmarking against comparable corporate groups selected on the basis of the company's business characteristics using the officer remuneration survey data managed by an external remuneration advisor and other data.

**[Remuneration Decision Process]**

In order to guarantee the objectivity and transparency of the process of determination of the remuneration for eligible directors, the Nomination and Compensation Advisory Committee formulates standard amounts for the respective remuneration components "remuneration table") and the proposed remuneration for each eligible director, and the company's Board of Directors deliberates and resolves whether the president and chief executive officer may determine the remuneration table and the remuneration for each eligible director based on the propositions above. The president and chief executive officer then determines the remuneration table and the remuneration for each eligible director within the range approved at the general meeting of shareholders.

**[Remuneration for Eligible Directors]**

The remuneration for eligible directors is determined by the process described above within the range approved at the general meeting of shareholders. The remuneration range includes the portion paid as salary and the bonuses for official duties undertaken by directors who also serve as executive officers. The ranges for remunerations are as follows.

| Type of remuneration | Remuneration range |
|---|---|
| Basic remuneration | Within 330 million yen per year (including the portion for non-operating directors) |
| Performance-linked bonus | Within 180 million yen per year |
| Performance-lined share-based remuneration (performance share unit) | The total monetary remuneration claims and cash for tax payment provided to eligible directors as remuneration related to the new performance-linked, share-based remuneration system is within an amount per fiscal year equivalent to 141,000 shares multiplied by the stock price at the time of the grant. |
| Restricted share-based remuneration system | The total monetary remuneration claims provided as remuneration related to the restricted share-based remuneration system is within 120 million yen per year. |

**[Basic Policy on Determination of Remuneration for Outside Directors (excluding Directors Who Are Audit and Supervisory Committee Members)]**

Remuneration for outside directors, who serve in the oversight function from an independent standpoint from business execution (excluding directors who are Audit and Supervisory Committee members), consists only of basic remuneration at a set amount, which is determined after considering the result of a comparison with corporate groups of the same size.

The Nomination and Compensation Advisory Committee formulates the proposed remuneration for each outside director (excluding directors who are Audit and Supervisory Committee members), and the company's Board of Directors deliberates and resolves whether the president and chief executive officer may determine the remuneration for each outside director (excluding directors who are Audit and Supervisory Committee members) based on the propositions above. The president and chief executive officer then determines the remuneration for each outside director (excluding directors who are Audit and Supervisory Committee members) within the range (up to ¥40 million per year) approved at the general meeting of shareholders.

**[Basic Policy on Determination of Remuneration for Non-operating Directors]**

Remuneration for non-operating directors, who serve in the oversight function from an independent standpoint from business execution, consists only of basic remuneration at a set amount, which is determined after considering the result of a comparison with corporate groups of the same size.

The Nomination and Compensation Advisory Committee formulates the proposed remuneration for each non-operating director, and the company's Board of Directors deliberates and resolves whether the president and chief executive officer may determine the remuneration for each non-operating director based on the propositions above. The president and chief executive officer then determines the remuneration for each non-operating director within the range (up to ¥330 million per year for directors (excluding directors who are Audit and Supervisory Committee members and outside directors) approved at the general meeting of shareholders.

**[Basic Policy on Determination of Remuneration for Directors Who Are Audit and Supervisory Committee Members]**

Directors who are Audit and Supervisory Committee numbers are responsible for supervising and auditing the execution of duties by directors (excluding directors who are Audit and Supervisory Committee members) in a position independent of the execution of duties. They receive only a basic remuneration in the form of a fixed salary, which is determined and paid following discussions by the Audit and Supervisory Committee within a remuneration framework (within ¥10 million per year) approved at a general meeting of shareholders.

## Total Remuneration Paid to Directors and Auditors (Fiscal Year Ended December 2023)

| Position | Total remuneration (Millions of yen) | Total of various types of remuneration (Millions of yen) | | | | Number of eligible personnel |
|---|---|---|---|---|---|---|
| | | Basic remuneration | Performance-linked bonus | Performance-linked, share-based remuneration | Restricted share-based remuneration system | |
| Directors (excluding Audit and Supervisory Committee members and outside directors) | 304 | 188 | 23 | 39 | 52 | 7 |
| Audit and Supervisory Committee members (excluding outside directors) | 19 | 19 | — | — | — | 1 |
| Auditors (excluding outside auditors) | 6 | 6 | — | — | — | 1 |
| Outside directors and auditors | 65 | 65 | — | — | — | 7 |

Notes 1. Based on a resolution adopted at the 93rd general meeting of shareholders that convened on March 30, 2023, TOK shifted from a company with a Board of Corporate Auditors to a company with an Audit and Supervisory Committee on the same day, and these figures include two directors and three outside auditors who retired at the conclusion of the 93rd general meeting of shareholders. For one person who was newly appointed as a director who is an Audit and Supervisory Committee member after retiring as an auditor at the conclusion of the 93rd general meeting of shareholders, they are included in the items for each officer category according to the period of service in each officer category.

2. The total remuneration for directors includes the portion paid as salary for official duties undertaken by directors who also serve as executive officers.

3. As the performance indicators pertaining to performance-linked remuneration, EBITDA margin and consolidated net sales as key managerial indicators are applied to the performance-linked bonus in order to clarify responsibility for the results of each fiscal year, while ROE and nonfinancial employee engagement as strategic indicators in the medium-term plan are applied to performance-linked share-based remuneration in order to pursue the creation of sustainable corporate value. In FY 2023/12, the EBITDA margin stood at 18.7%, consolidated net sales at 162,270 million yen, ROE at 7.2%, and the employee engagement indicator at around the standard value.

**Remuneration for Directors and Auditors (Fiscal Year Ended December 2023)**

| Name | Total remuneration (Millions of yen) | Position | Company | Total of various types of remuneration (Millions of yen) | | | |
|---|---|---|---|---|---|---|---|
| | | | | Basic remuneration | Performance-linked bonus | Performance-linked, share-based remuneration | Restricted share-based remuneration system |
| Noriaki Taneichi | 109 | Director | Submitting company | 62 | 9 | 15 | 21 |

Note: The table only includes officers who receive remuneration of 100 million yen or more in total.

# Internal Control System

Initiatives are taken to bolster the group internal control system, including the strengthening of business management at overseas subsidiaries with an increasing presence, and the establishment of compliance systems. This section is an overview of the initiatives: the group management system, compliance system, risk management system, the improvement of information management, and supply chain management.

→ For further details on internal control, please see the Corporate Governance Report.
https://www.tok.co.jp/application/files/6317/1169/7949/20240329.pdf

## Group Management System (GMS)

In order to establish and maintain the global business management systems, the TOK Group defined 15 fields for group-wide consistent initiatives as management functions, established group-wide common rules, and promoted the operation and maintenance of the Group Management System (GMS) as the basis for continuous improvement. Through these initiatives, TOK will steadily reduce group risks and enhance its corporate value.

**[Organization Structure for Promoting GMS]**
The Division manager of the Corporate Planning Division responsible for supervising subsidiaries was appointed the chief officer for GMS in order to maintain GMS as an important mechanism within the TOK Group. The Planning Department under the Corporate Planning Division functions as the secretariat for GMS. In this way, TOK will maintain group-wide activities to enhance corporate value and reduce risks, while enhancing dialog with subsidiaries and strengthening the headquarters function to supervise them.

**[GMS Initiatives]**
The entire Group needs to be optimized in order to achieve the enhancement of sustainable corporate value. Therefore, the company will implement self-inspection to check the management functions and identify problems at the subsidiaries, provide support for improvement, and perform post-improvement monitoring.

In the fiscal year ended December 2023, TOK conducted self-inspections on the development and operation of GMS for one GMS management function and one subsidiary. The minor findings identified in the inspection were resolved at a rate of 100%. The Company also made progress with a 97% resolution rate on key issues.

**15 GMS Management Functions**

| | | | |
|---|---|---|---|
| Business management | Sales management | Accounting/ Financial management | Purchase/ Procurement management |
| Risk management | Human resource management | Production management | EHS management |
| Compliance | Information management | Security export control | SCM |
| R&D | Import control | (as the basis) GMS | |

## Compliance

The TOK Group makes concerted efforts to enhance its compliance system from the perspective that maintaining relationships of trust with all stakeholders is a prerequisite for sustainable development as a corporation that coexists with society. The Group strives to improve the awareness of compliance by all officers and employees to ensure strict compliance with laws and regulations, the Articles of Incorporation, Company rules, and social norms.

**[Compliance Promotion System and Standards of Conduct]**
Compliance activities are being promoted with the participation of all employees and led by the Compliance Committee, which consists of TOK officers and undertakes awareness raising and dissemination activities at Group companies with the support of the Legal Dept. (Compliance Committee Secretariat). In order to prevent violations of compliance, the Compliance Committee collects information about potential problems and compliance issues from each site, along with corrective actions and the planned time of correction, and monitors progress on a periodic basis. The standing Audit and Supervisory Committee member and the Internal Auditing Department attend the Compliance Committee to share key points in audits, thereby improving the quality and effectiveness of audits.

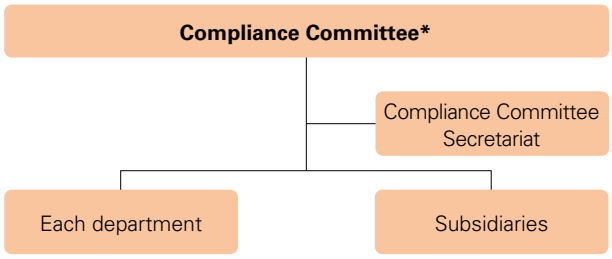
The Ethics and Anticorruption Policy has been established as a subordinate policy under the CSR Policy with the aim of improving the awareness of compliance by each officer and employee and to clarify the values and code of conduct to be shared. This policy is also applicable to subsidiaries in Japan and overseas and is translated into the local language of each group company to be distributed to all officers and employees.

## Ethics and Anti-Corruption Policy

The TOK Group promotes fair and impartial business activities in compliance with the laws of countries and regions and social norms.

- The Group prohibits anti-competitive behavior and maintains fair free competition.
- The Group prohibits the abuse of any dominant bargaining position and ensures equal and proper transactions.
- The Group does not engage in dishonest acts that may interfere with international peace and security.
- The Group prohibits entertainment and gifts beyond the range of conventional practices.
- The Group prohibits conflicts of interest.
- TOK stringently manages all confidential information that the company possesses or acquires with regard to business.
- The Group prohibits the dishonest use of corporate assets.
- The Group properly protects and uses intellectual property while respecting the intellectual property rights of third persons.
- The Group discloses corporate information in a timely and fair manner.
- The Group will place correct advertisements and provide accurate information on products and services.
- The Group prohibits insider trading.
- The Group makes donations and political contributions in accordance with the laws of the countries and regions where it operates.
- The Group will never have a relationship with antisocial forces.
- The Group prohibits political activities and soliciting activities on company premises without permission by the company.

Compliance Committee Diagram




* Chaired by the President and Chief Executive Officer

### Initiatives for ensuring compliance with laws and regulations

In order to prevent compliance-related risks from emerging, all officers and employees must absorb compliance into business practices. To achieve this, the company works to construct a system to respond rapidly to revisions to laws and regulations in each country and region. TOK also conducts its own unique compliance training that considers conditions at each department and site within the Group and goes through the PDCA cycle to prevent risks from materializing. In the fiscal year ended December 2023 and based on the activities in the previous fiscal year, (revision of list of applicable laws and regulations and the procedures for the management of laws and regulations, confirmation of legal compliance status [four times a year]), TOK continued to confirm the legal compliance status (four times a year) while revising the list of applicable laws and regulations and the procedures for the management of laws and regulations. These changes led to the establishment of a continuous process for timely information collection on changing laws and incorporating the information into business practices. To ensure that employees better understand compliance, CSR training was implemented for all employees in Japan, through which the changing concepts of compliance were shared, and the importance of compliance was disseminated.

### Internal Reporting System

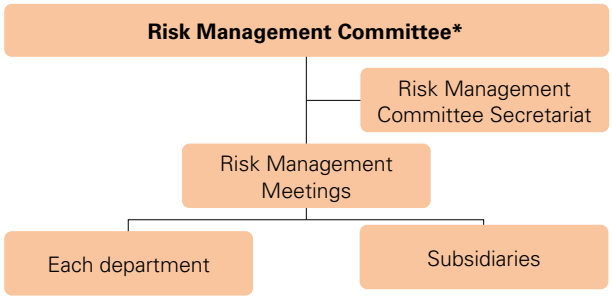
The company has an internal reporting system based on the Whistleblower Protection Act in order to identify and improve or prevent compliance risks in business activities at an early stage. A whistleblower may select one of three channels that respectively report to the Compliance Committee Secretariat (internal), the Standing Audit and Supervisory Committee Member (internal), and the legal advisor (external). Whistleblowing and consultation may be made by e-mail, by phone, in writing, in person, or by other means, and anonymous whistleblowing is acceptable. It is clearly stated that a whistleblower is protected from dismissal or any disadvantageous treatment because of whistleblowing unless it is conducted for an illegitimate purpose. Apart from the whistleblowing system, TOK has an outside counseling section that can be accessed anonymously to receive complaints concerning harassment. In the fiscal year ended December 2023, there were four reports to the whistleblowing system regarding labor and the workplace environment for the entire group, and 19 consultations to other consultation windows. Based on detailed fact-finding and objective situation judgment, TOK implemented guidance to the subjects and education for correction. TOK will further enhance the system and continue disseminating it to the executives and employees so as to establish a more reassuring environment for whistleblowing.

## Risk management

The Group's perpetual development depends on precisely addressing a variety of risks that have major impacts on business. Through communications with stakeholders, TOK strives to identify and prevent a variety of potential risks. If a risk emerges, the company will implement the necessary measures to minimize the negative impacts of the risk. In these and other ways, TOK maintains and improves its global risk management system.

**[Risk Management System]**
The TOK Group Risk Management Committee plays a central role in reviewing the risk management system and formulating risk management policy. To appropriately handle the different risks, TOK established the TOK Group Risk Management Rules and the TOK Group Emergency Response Standards. Based on the Rules and the Manual, the company implements preventive measures at normal times by identifying the risks that may result in serious outcomes, analyzing such risks, and determining, implementing, and evaluating actions required, among other risk management activities in the categories of management risks, social risks, and disaster/accident risks.

Risk Management Committee Diagram




* Chaired by the President and Chief Executive Officer

### Strengthen the risk management structure

The Group reinforced the recognition of the importance of risk assessments in corporate activities and crisis management when risks materialized in the wake of the Great East Japan Earthquake and established a specialized committee to respond to the disaster. Subsequently, as globalization expanded, TOK expanded the form and renamed it the TOK Group Risk Management Committee as part of building a system to respond to a wide range of risks including disasters, accidents, and environmental risks across the TOK Group.

In the fiscal year ended December 2023, efforts were made to reduce risks that were considered to have a high impact on business continuity based on the risk assessment of the previous fiscal year (such as risks in material supply and occupational health and safety). In April 2024, TOK newly established the ERM Department with the aim of comprehensively managing risks across the entire Group, and the Group will strengthen its efforts to respond to rapidly changing economic security and related issues. The Group will continue to promote risk reduction activities for sustainable development.

### Enhance the safety confirmation system

The Group believes that the business continuity plan (BCP) begins with the safety of all employees. In Japan, TOK operates a safety confirmation system to confirm whether Group employees are safe in the event of natural disasters, including major earthquakes. Safety confirmation drills are conducted every year to ensure the smooth and efficient operation of the system and to raise awareness among all employees. In the fiscal year ended December 2023, four drills were implemented, and the response rate was maintained at a high level in all sessions.

### Large-scale natural disaster preparedness

Based on lessons learned from the Great East Japan Earthquake and the Kumamoto Earthquake, TOK has established a BCP that envisions damage simultaneously striking the headquarters and multiple sites from earthquakes directly beneath the greater Tokyo area. TOK reviews its BCP every year to ensure that it is grounded in actuality by estimating actual damage that may disrupt order taking and placement, product shipment, and essential utilities.

As other disaster preparedness measures in FY 2023/12, TOK completed flood prevention work at sites with the highest risk of flooding and started the operation of initial response guidelines on the occasions with anticipated flooding risks. In FY 2024, the TOK Group plans to review the BCP in preparation for the Nankai Trough mega earthquake.

## Improving Information Management

Leaks of information assets could substantially compromise the competitive advantages of the TOK Group and threaten its survival as a business entity. The environment surrounding business entities is drastically changing. Cybersecurity risks may impose a significant threat to TOK as a single company and its entire supply chain. Reinforcing the information management system is a priority issue in terms of preserving corporate value and fulfilling its social responsibility. From this standpoint, the company is redoubling its efforts to ensure information security by maintaining the PDCA cycle.

**[TOK Group Information Management Policy]**
The TOK Group (comprising Tokyo Ohka Kogyo Co., Ltd., and its subsidiaries, hereinafter collectively the "TOK Group") is implementing measures in line with the following policies after positioning risk management related to information assets as a priority management issue to fulfill its corporate social responsibility.

### Definition, protection, and effective utilization of information assets

With respect to all information assets of the TOK Group, including managerial, client, marketing, personal, and technical information, the Group will comply with laws and regulations related to information security, other social norms, in-house rules, and other guidelines and protect the information appropriately. The Group shall only use the information to efficiently execute the operations of the Group within the stipulated scope of authority and for the prescribed purpose.

### Update and maintain tools and security platforms

The TOK Group updates and maintains reasonable communications tools and security platforms for the effective use of its information assets.

**Organizational structure and organized activities**
The TOK Group established an Information Management Committee and will continue to build, maintain, and promote the management structure that can properly govern information assets for the overall Group.

**Completeness, confidentiality, and availability**
The TOK Group will identify and assess risks and continue to implement countermeasures and improvements as well as appropriately reduce information management risks through a range of human, physical, organizational, and IT-based measures to prevent leakage, falsification, theft, destruction, and other damage to the information assets in the possession of the TOK Group.

**Education**
The TOK Group will implement in-house education regularly and continuously and work to raise awareness so as to keep everyone well informed of the in-house rules and other regulations.

**Incident response**
The TOK Group will endeavor to minimize the damage in the event of an information security incident and implement measures to prevent its recurrence.

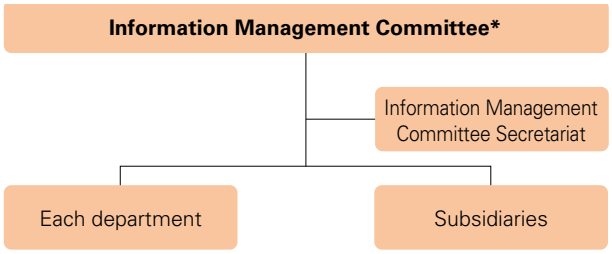
**Audits and continuous improvements**
The TOK Group will implement regular audits and make continuous improvements as a part of the management of information assets.

**[Information Management Structure]**
The TOK Information Management Committee is chaired by the Division manager of the Corporate Planning Division. The Committee determines the policies and measures related to information security and cybersecurity. The overseas subsidiaries established information management organizations, which develop systems and rules to collaborate under the guidance of the TOK Information Management Committee, thereby strengthening information management systems throughout the Group.

In addition, the Internal Auditing Division regularly audits compliance to the rules and other matters on information management as part of its internal audits. The Division aims to improve the information management system by giving guidance, issuing proposals, and offering advice to relevant departments.

**[Initiatives for Information Management]**
In the fiscal year ended December 2023, TOK continued to clarify the cybersecurity systems of the TOK Group, promoted measures against cyberattacks, and changed information management rules to make them more understandable for employees, thereby further improving understanding and dissemination. Additionally, the Group improved the information management standard by responding to amendments to personal information protection acts in Japan and Europe and implementing measures to prevent the outflow of human resources and technologies from the viewpoint of economic security.

Information Management Committee Diagram




* Chaired by the division manager of the Corporate Planning Division

**Key topics for information management**
Trade secret management, education and rules, human security, IT security, physical security, and supplier management

# Supply chain management (CSR procurement)

**With the overseas sales ratio exceeding 80% and its supply chain spreading across the world, the TOK Group operates in accordance with the RBA Code of Conduct.**

## Establishing the Human Rights Policy and the CSR Procurement Policy under the CSR Policy based on the social norms

In 2020, TOK formulated the CSR Policy based on the laws of the relevant countries and regions and the social norms (referring to the Universal Declaration of Human Rights, the Guiding Principles on Business and Human Rights, ISO 26000, the RBA Code of Conduct, and other guidelines), under which the company also established the Human Rights Policy and the CSR Procurement Policy. TOK also formulated the CSR Procurement Guidelines to help suppliers understand the TOK CSR Procurement Policy and asked them to consider social issues, including the maintenance of respect for human rights, regulatory compliance, environmental conservation, and occupational health and safety.

Furthermore, the company asks key suppliers to agree to its CSR Policy and submit written agreements. TOK also conducts a CSR questionnaire survey to research the status of response to social issues.

### CSR Procurement Policy

The TOK Group promotes sustainable procurement based on the spirit of co-existence and co-prosperity with business partners and in accordance with all laws and social norms.

- Promote procurement activities with adequate quality, prices, and delivery time.
- Maintain equal and proper purchase activities with suppliers.
- Consider human rights, occupational health and safety, and other social issues.
- Promote environmental consideration and green procurement.
- Promote business continuity management in preparation for risks.
- Strictly manage all confidential information that we come to possess or acquire on business.
- Promote the responsible procurement of minerals throughout our supply chain.

## Respect for human rights

As subordinate policies to the CSR Policy, the company also formulated the Human Rights Policy in October 2020 in reference to the Universal Declaration of Human Rights, the Guiding Principles on Business and Human Rights, ISO 26000, the Responsible Business Alliance (RBA) Code of Conduct, and other guidelines.

### Continued and enhanced human rights education under the Human Rights Policy

In the fiscal year ended December 2023, TOK implemented CSR training for all directors and employees at Japanese sites, as well as suppliers for some operation centers with the intention of disseminating the Policy throughout the company. TOK will continue to further improve awareness and promote understanding within the Group.

### Human rights policy

The TOK Group respects the basic human rights and diverse values of individuals and acts in accordance with the laws of countries and regions and the social norms related to human rights* as a good member of the international community.

* The Universal Declaration of Human Rights, the Guiding Principles on Business and Human Rights, ISO 26000, the Responsible Business Alliance Code of Conduct, and other guidelines

- The TOK Group never engages in nor will it accept any discriminatory treatment based on birth, nationality, race, ethnicity, religion, gender, sexual orientation, marital status, pregnancy, illness, age, disabilities, or any other causes prohibited by law in recruitment, employment, placement, training, remuneration, or promotion.
- The TOK Group prohibits child labor, forced labor, bonded labor, and human trafficking, regardless of employment status.
- The TOK Group prohibits all activities that may be regarded as harassment.
- The TOK Group pursues the development and fair treatment of human resources.
- The TOK Group ensures sound employment and labor to maintain a work environment that is comfortable both physically and mentally.
- The TOK Group respects and guarantees the basic rights of workers stipulated by the International Labor Standards and the constitutions and labor acts of countries and regions where the Group operates.
- The TOK Group appropriately protects and manages personal information.

#### Prohibition of child labor and forced labor

The Human Rights Policy clearly states that the TOK Group prohibits child labor, forced labor, bonded labor, and human trafficking, regardless of employment status. The Group has also promoted initiatives covering the entire supply chain, including the statement of procurement considering human rights, occupational health and safety, and other social requirements in the CSR Procurement Policy.

#### Prevention of harassment

The Human Rights Policy states that the TOK Group prohibits all activities that may be regarded as harassment. TOK codified the Detailed Rules on Harassment to prevent harassment and facilitate responsive improvement measures through the three whistleblowing channels (respectively reporting to the legal advisor, the Audit and Supervisory Committee members, and the Legal Division), self-declaration, direct reporting to the Human Resources department, and the establishment of an outside counseling section. In the fiscal year ended December 2023, TOK also improved information sensitivity to detect the slightest signs and to ensure the prevention, identification, and rapid handling of harassment while promoting training for officers and senior employees as well as all managers as a newly added target group.

## Main Business Risks, Countermeasures, and Opportunities

The TOK Group operates in every region of the world in a diverse range of fields. When carrying out these operations, the Group encounters a variety of risk factors that may have a detrimental impact on its financial conditions and management performance. The risks described below are solely those that the Group assesses as the most significant as of December 31, 2023, and are not exhaustive of all risks faced by the TOK Group.

| Theme | Risks | Countermeasure | Opportunities |
|---|---|---|---|
| Industrial and economic change | ● Electronics is subject to major cyclical changes in market conditions; in particular, materials for semiconductors and displays are significantly affected by such demand trends.<br>● The Group may also be affected by market changes and price fluctuations driven by the rapid speed of technological innovation and the complexity and diversity of user needs. | ● The Group will employ rapid flexible sales and marketing strategies based on a deep understanding of the characteristics of each market in the semiconductor industry, including the memory field with large fluctuations in demand and supply and price, the logic field with relatively small fluctuations, and the power device field that has a broad base.<br>**→ See pages 34–39 and 54–57**<br>● The Group will mitigate the impact of demand and supply and price fluctuations for older products and fluctuations in economic conditions by constantly acquiring business in innovative fields.<br>● The Group will expand new business in such fields as life science, which has a different demand and supply fluctuation cycle from semiconductors<br>**→ See page 59** | ● The Group will realize long-term stable growth and stable increases in corporate value through its business portfolio, which is highly resilient to economic fluctuations and centered on high value-added products.<br>● The Group will use marketing and development to create opportunities from structural changes in its target markets and contribute to innovation. |
| Exchange rate fluctuation | ● The Group has production and marketing sites in North America, Asia, and Europe, where the markets are expected to further expand, and a part of its overseas transactions are calculated in yen, combined with risk hedges through forward exchange contracts. However, the Group may be affected by exchange rate fluctuations that exceed the anticipated level. | ● As a part of balance sheet management, the Group is evolving global cash management, including adjusting the balance of cash positions between overseas sites. Through these measures, the Group will enhance financial risk controls for exchange rate fluctuations and liquidity.<br>**→ See pages 40–43** | ● By minimizing exchange rate fluctuation risk, the Group will minimize the risk of fluctuations in its business performance due to focusing on the highly volatile semiconductor industry. |
| R&D | ● Research and development by the Group results in products that precisely reflect user needs and maintains competitiveness in the electronics industry where the pace of technological innovation is rapid. However, since it is difficult to realize technological innovation and anticipate changes to user needs, the Group may be unable to produce the intended results for unforeseeable reasons, regardless of how much management resources it invests into R&D. | ● The Group will continue to deepen the customer relationships it has cultivated at customer-oriented sites in Japan and overseas. Meanwhile, the Group will work in many fields and flexibly set its focus themes, while strengthening proactive marketing in R&D.<br>**→ See pages 34–39 and 54–57**<br>● The Group will go beyond simply responding to the technology needs of customers by expanding technological seeds through venture capital investment, open innovation, and collaboration with industry and academia and continue development in major themes until it succeeds.<br>**→ See pages 54–57** | ● The Group will form development communities with stakeholders in Japan and internationally in the innovative fields of electronics materials, such as semiconductor materials.<br>● The Group will pursue strategic sales activities, R&D, and resource allocation while upgrading product-based marketing in order to respond to any market that may launch in the future.<br>● The Group will acquire a broad range of technological seeds using open innovation in order to fully input internal resources as soon as a market takes off. |
| Intellectual property | ● The Group has a diverse portfolio of intellectual properties for which it grants licenses to third parties and acquires licenses from third parties as necessary or when useful. If the Group is unable to safeguard and maintain or acquire these rights as anticipated, it may become a party to and incur expenses in a dispute or lawsuit related to these rights. | ● Management of intellectual property, such as granting and acquiring licenses, is conducted without delay by a dedicated department. The Group also conducts awareness raising and training about intellectual property rights for relevant divisions for development, sales, and manufacturing.<br>**→ See page 58** | ● The Company will conduct stable management of intellectual property, while building an intellectual property portfolio that supports corporate value enhancement more effectively by discerning whether to employ an open or closed strategy on a case-by-case basis. |
| Raw material procurement | ● The Group aims to stably procure materials by maintaining a network of multiple suppliers. However, its production activities may be affected by a delay or suspension in the supply of raw materials due to accidents involving the manufacturers.<br>● An increase in the price of raw materials may also impact the Group. | ● By strengthening supplier engagement, the Group continuously tracks the potential risks for each supplier.<br>● While continuing internal efforts to reduce costs, streamline operations, and switch to alternative materials, the Group passes on price changes for products to customers where this can be rationally justified. | ● The Group will reduce factors that could impede future growth by strengthening its BCP on the assumption of emergent risks involving the suppliers.<br>● The Group will increase capital efficiency by securing appropriate profits from its high value-added products. |

| Theme | Risks | Countermeasure | Opportunities |
|---|---|---|---|
| Product liability | ● Within the process where customers use the Group's products, faults may occur that originate in a product defect. The Group has insurance to cover product liability compensation payments, but because insurance may not be able to cover the entire amount that has to be paid, there could be an impact on the Group's business results. | ● The Group provides inline support and reduces defects through the trinity of development, manufacturing, and sales, while reducing the risk of faults through a comprehensive understanding of customers' manufacturing lines. **→ See page 23** | ● The Group will further improve customer satisfaction and increase its brand capabilities by increasing customers' manufacturing yields.<br>● Profitability and capital efficiency will be increased by adding higher value to products. |
| Natural disaster and accident | ● In the event of a natural disaster, such as an earthquake, or an unforeseen accident, such as a fire or an explosion, the Group may have to suspend production at its manufacturing plants in Japan and overseas with a resulting delay in product shipments. The Group may also have to pay repair or replacement costs at the damaged plant.<br>● If COVID-19, influenza, or other infectious diseases spread among the employees, the Group may be forced to temporarily suspend operations. | ● The Risk Management Committee plays a central role in reviewing the risk management system and formulating the overall risk management policy. **→ See pages 94–96**<br>● Disaster and accident risks were added to the major risks of the TOK Group identified through risk assessment specified in the Risk Management Rules. The Company identifies risks that may result in serious outcomes, analyzes such risks, and determines, implements, and evaluates the actions required, among other activities. **→ See pages 94–96**<br>● The Group has established appropriate management systems to prevent infections and their spread. | ● By limiting the impact of natural disasters and accidents as far as possible, the Group will minimize its downside risk and maintain its upside potential.<br>● The Group will acquire trust from stakeholders —customers, employees, and local communities—over the medium to long term and increase brand capabilities. |
| Environment | ● The Group uses the different types of chemical substances within its production activities and has strict rules to ensure that they are handled safely. However, in the event of an accident involving the discharge of chemical substances into the external environment from Company premises, the Group's reputation within society may be affected, it may have to compensation in order to carry out countermeasures, and it may have to suspend production activities.<br>● If environment-related laws and regulations in each country where the Group conducts its business activities are made stricter, the Group may face additional costs or limits on its business activities. | ● The Group had a third-party institution (such as ISO and RBA) conduct a health and safety audit to further improve the level of occupational health and safety by identifying potential sources of danger. **→ See pages 74–75 and 113–114**<br>● The Group coordinates closely with local subsidiaries overseas to obtain the latest information on revisions to laws and regulations. **→ See pages 110–112**<br>● The Group will automate its processes and develop systems to lighten the workload from registrations and filing. | ● By preventing accidents, the Group will maximize its upside potential.<br>● The Group will foster greater loyalty among employees by ensuring safety at all manufacturing sites.<br>● The Group will maintain and increase social trust in local communities overseas. |
| Laws and regulations | ● When conducting business throughout the world, the Group must receive approval for business and investment activities and observe each government's regulations frelated to restrictions on imports and exports. In addition, the Group must observe laws and regulations related to trade, monopolies, international taxation, the environment, and recycling. If there are major revisions to any of these laws and regulations, if the Group fails to precisely understand their requirements, or if for any reason it is unable to observe them, then this may have an impact on the Group's business performance. | ● The Group has accelerated the process of registering and receiving approval for chemical substances by having local non-Japanese employees interpret the laws and regulations and negotiating with local government institutions. **→ See pages 110–112** | ● Developing products that use alternatives to prohibited substances may give rise to new product characteristics and added value.<br>● The Company will differentiate itself from competitors through its ability to comply with local laws and regulations. |
| Overseas business activity | ● The Group's overseas business activities may be obstructed by the emergence of unexpected revisions to laws and regulations, weakening of the industrial base, difficulties in securing personnel, terrorist attacks, wars, and natural disasters. | ● The Group uses its strength of having production sites in four regions around the world—Japan, the United States, South Korea, and Taiwan—to minimize emergent risks by coordinating between them. **→ See page 27** | ● Reducing the Group's overall environmental risk and natural disaster and accident risk will enable it to continue fulfilling its responsibilities as a supplier. |
| Information leakage | ● The Group implements comprehensive measures to ensure the security of confidential business information, information related to other companies, and personal information. However, because of unforeseeable events, if information leaks outside of the Group, this may damage the reputation of the TOK Group within society, and it may have to pay liability compensation for any damage to a company or individual whose information was leaked, which could have an impact on the Group's business results. | ● Reinforcing the information management system is a priority issue in terms of preserving corporate value and fulfilling our social responsibility. From this standpoint, the Group is redoubling its efforts to ensure information security by establishing and running the PDCA cycle. **→ See pages 95–96** | ● A solid information management system will increase customer trust and help to expand business opportunities.<br>● The Group's brand capabilities will increase in Japan, the United States, China, South Korea, Taiwan, and other regions in and outside of Japan where the Group operates. |

# Global environmental conservation considering future generations

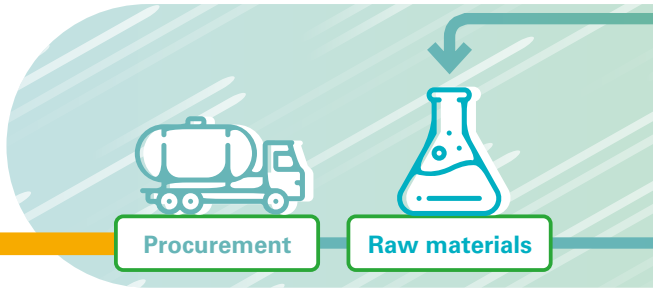
* The scope of reporting on global environmental conservation considering future generations (pages 100–109) is on an unconsolidated basis and consolidated subsidiaries in Japan. In other cases, the scope of coverage is listed on each page.

## Reduction in Environmental Impact from Corporate Activities

### Environmental Performance*

With the aim of global environmental conservation considering future generations as a new material issue, the TOK Group conducts daily quantitative and qualitative evaluations of the effects of its corporate activities on the global environment and implements a variety of different initiatives to minimize its impact.

* Environmental performance: Environmental performance evaluations are a method of evaluating the environmental activities and the results achieved by an organization in qualitative and quantitative terms in accordance with its environmental policy, objectives, and goals.




| Purchased goods and services | |
|---|---|
| Scope 3 Cat. 1 | 406,752 t-$CO_2$e |

| OUTPUT | | |
|---|---|---|
| $CO_2$ (Sum of Scopes 1 and 2) | | 11,234 t-$CO_2$e |
| SOx*1 | | 0.5 t |
| BOD*2 | | 0.4 t |
| General industrial waste | | 30 t (Recycling rate: 43.4%) |
| Industrial waste | General industrial waste | 1,729 t (Recycling rate: 40.5%) |
| | Specially controlled industrial waste | 3,051 t (Recycling rate: 94.2%) |

| Waste generated in operations | |
|---|---|
| Scope 3 Cat. 5 | 5,335 t-$CO_2$e |

| Business travel and commuting | |
|---|---|
| Scope 3 Cat. 6 | 207 t-$CO_2$e |
| Scope 3 Cat. 7 | 738 t-$CO_2$e |

* January 2023 to December 2023
*1 SOx: Abbreviation for Sulfur Oxides; Produced from the combustion of fossil fuels containing sulfur and considered substances that cause acid rain.
*2 BOD: Abbreviation for biochemical oxygen demand; Refers to the volume of oxygen required when pollutants in the water (organic substances) turn into inorganic substances or gases through the action of microorganisms. BOD is a major indicator for evaluating the degree of contamination of rivers and other bodies of water. A higher BOD value means a higher level of contamination of the water.

Please follow the URL below for more detailed information on the environmental impact by site.

Information on environmental impact by site https://www.tok.co.jp/eng/sustainability/env-activity/greenhouse-gases

### Emissions of Greenhouse Gases—Scopes 1, 2, and 3

Because climate change has become more serious in recent years, companies are expected to measure greenhouse gas emissions from their own properties and across the entire value chain. TOK measures and calculates greenhouse gas emissions based on the Ministry of the Environment's Basic Guidelines on Accounting for Greenhouse Gas Emissions throughout the supply chain within the context of emissions from business activities (Scopes 1 and 2) and indirect emissions from nonbusiness activities (Scope 3). In 2021, TOK started calculating Scopes 1 and 2 at all overseas sites. TOK will advance the initiatives for the realization of a sustainable society by identifying issues throughout the value chain where corporate activities have an impact.

| | | | |
|---|---|---|---|
| Scope 1 | 11,062 t-$CO_2$e | Scope 2 | 172 t-$CO_2$e |
| Scope 1 (overseas total) | 3,103 t-$CO_2$e | Scope 2 (overseas total) | 14,934 t-$CO_2$e |

**Scope 3 Emissions by Category (domestic total)**

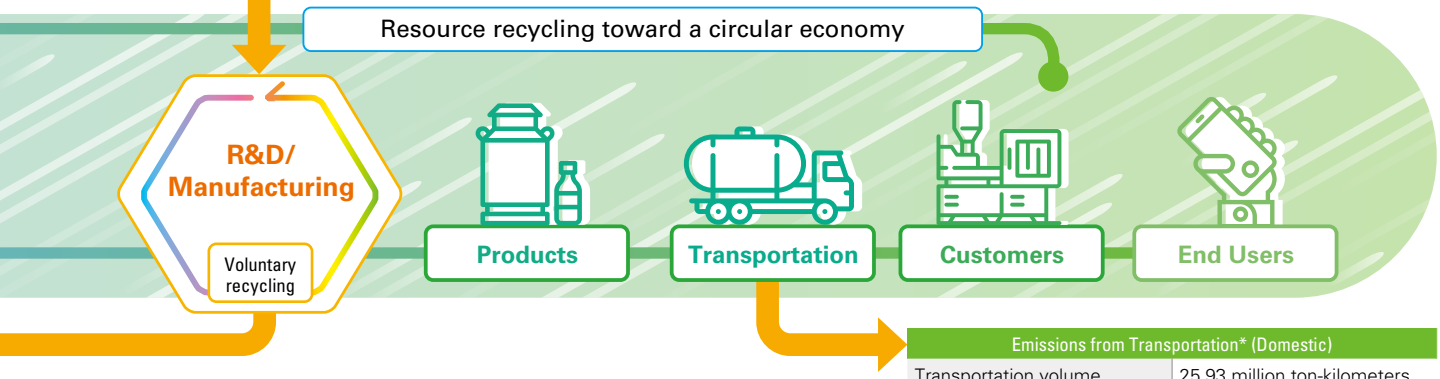
| Cat. (Category) | Name | Emissions |
|---|---|---|
| Cat. 1 | Purchased goods and services | 406,752 t-$CO_2$e |
| Cat. 2 | Capital goods | 25,694 t-$CO_2$e |
| Cat. 3 | Fuel and energy-related activities not included in Scope 1 and 2 | 5,776 t-$CO_2$e |
| Cat. 4 | Upstream transportation and distribution | 15,384 t-$CO_2$e |
| Cat. 5 | Waste generated in operations | 5,335 t-$CO_2$e |
| Cat. 6 | Business travel | 207 t-$CO_2$e |
| Cat. 7 | Employee commuting | 738 t-$CO_2$e |

| Cat. (Category) | Name | Emissions |
|---|---|---|
| Cat. 8 | Upstream leased assets | Not applicable |
| Cat. 9 | Downstream transportation and distribution | — |
| Cat. 10 | Processing of sold products | — |
| Cat. 11 | Use of sold products | Not applicable |
| Cat. 12 | End-of-life treatment of sold products | Not applicable |
| Cat. 13 | Downstream leased assets | — |
| Cat. 14 | Franchises | — |
| Cat. 15 | Investments | Not applicable |

* January 2023 to December 2023 (Waste generated in operations: April 2023 to March 2024)
* Business trips and commuting by employees exclude people seconded to other companies.

| INPUT | | | |
|---|---|---|---|
| Total energy consumed | 17,679 kL crude oil equivalent | Used water | 392,000 m³ |
| Electric power | 12,124 kL crude oil equivalent | Chemical substances (Class 1 Specified Designated Chemical Substances under the PRTR Law) | 3 t |
| Petroleum (heavy oil) | 346 kL crude oil equivalent | Chemical substances (Class 1 Designated Chemical Substances under the PRTR Law) | 2009 t |
| City gas | 5,113 kL crude oil equivalent | | |

* January 2023 to December 2023 (Chemical substances: April 2023 to March 2024)




| Emissions from Transportation* (Domestic) | |
|---|---|
| Transportation volume | 25.93 million ton-kilometers |
| Energy consumed | 1,206 kL crude oil equivalent |
| $CO_2$ emissions (domestic) | 3,204 t-$CO_2$e |

| Scope 3 | Upstream transportation and distribution |
|---|---|
| Cat. 4 | 15,384 t-$CO_2$e |

* January 2023 to December 2023
* Emissions from domestic transportation are based on the METI Fiscal 2023 Specified Shippers Periodic Report.

## Environmental Accounting*

TOK has used environmental accounting since 2000 in order to identify the expenses required for environmental conservation activities as well as the effects of such activities and to help promote environmental management. In 2023, environmental conservation expenses totaled 859 million yen for energy-saving equipment investments and renewals.

* Environmental accounting: A system for understanding environmental conservation-related investments and the expenses incurred by businesses and other organizations, as well as the effects of such investments in quantitative terms (currency or physical quantity) and communicating such information to stakeholders.

(Millions of yen)

| Category of the cost | | Key Initiatives | Investment | Cost |
|---|---|---|---|---|
| Business area cost | Pollution prevention cost | Air, water, and other pollution prevention equipment and the renewal, operation, maintenance, and management of equipment | 69 | 87 |
| | Global environmental conservation cost | Energy conservation activities: non-FIT, non-fossil fuel certificate electricity purchase | 319 | 95 |
| | Resource circulation cost | Installation of melting equipment | 4 | 198 |
| Upstream/Downstream cost | | Green purchasing, collection of used products | 0 | 6 |
| Administration cost | | Approach to environmental management system | 22 | 50 |
| R&D cost | | Research and development related to environmental conservation (costs of chemical substance screening) | 0 | 7 |
| Social activity cost | | Cleanup activities around the production plants | 0 | 2 |
| Environmental remediation cost | | Treatment of soil pollution by the construction of a new building | 0 | 0 |
| Total | | | 414 | 445 |

* January 2023 to December 2023

## Environmental Conservation Cost

Investments refer to accounting for equipment associated with environmental conservation and improvement. Expenses are the sum of depreciation, personnel, and other operating expenses associated with environmental conservation. Computation of personnel expenses is based on the basic unit cost.

## Economic Benefits Associated with Environmental Conservation Measures

Figures are calculated on the basis of internally realized benefits from the sale of materials with value and from the reduction of costs.

(Millions of yen)

| Effects | | Amount |
|---|---|---|
| Revenue | Gain on the sale of recycled products | 29 |
| Cost savings | Reduction in disposal costs by reducing the volume of waste | 633 |
| Total | | 662 |

* January 2023 to December 2023
* Scope of environmental accounting covers all production facilities and the distribution centers in Japan, excluding the headquarters and marketing offices. The reference is the *Environmental Accounting Guidelines 2005* published by the Ministry of the Environment.
* Amounts of less than one million yen have been rounded off.

# Initiatives toward achieving carbon neutrality

## Key initiatives/Results in 2023

**KPI**

### Energy-related $CO_2$ emission intensity
**(equivalent to energy under the Act on Rationalizing Energy Use)**

| 2023 results (Scope 1 and 2) | 2030 targets* |
|---|---|
| Reduce by **72** points (vs. 2019) | Reduce by **15** points (vs. 2019) |

* From March 2024, TOK aims for a 30% reduction in absolute $CO_2$ emissions (consolidated) compared to 2019 under the new medium-term targets (→ **See pages 72–73 and 76–77**)

## Basic Concept

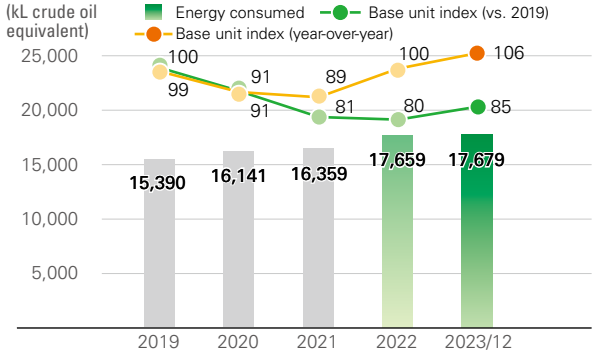
Toward the goal of carbon neutrality in 2050 for global environmental conservation in consideration of future generations as a material issue, the TOK Group quantitatively measures the environmental impact throughout the value chain and works to reduce the environmental load, including $CO_2$, with a full understanding of the impact that production activities have on the environment. TOK aims to achieve sustainable development with society through the development of photoresists and new products that further conserve resources and energy.

## Improve energy consumption intensity and $CO_2$ emissions/efforts for new medium-term targets

In operation, TOK continues to modify air conditioning temperature settings and operating hours, prioritizes the operation of energy-efficient cooling and heating source equipment, turns off unnecessary ventilation systems at night, turns off unnecessary lights outside business hours, and implements other relevant measures. When updating and installing new equipment, TOK focuses on energy efficiency by adopting LED lighting and introduces renewable energy sources like solar panels to further reduce energy consumption and $CO_2$ emissions.

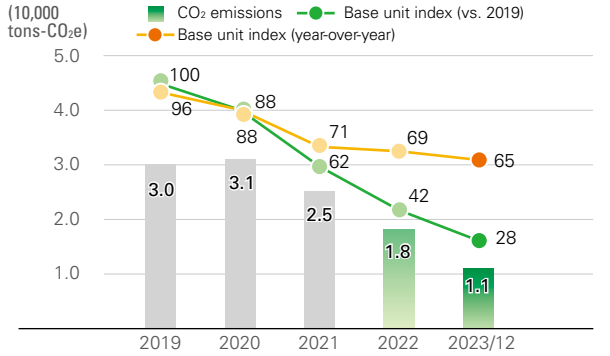
Energy consumption in 2023 was almost the same as the previous year (2022 saw an 8% increase from the previous year). The base unit index increased by 6 points compared to the previous year but decreased by 15 points compared to 2019 as a result of the aforementioned activities. The energy-related $CO_2$ emission intensity greatly improved with a 35-point reduction compared to the previous year (2022 saw a 31-point reduction from the previous year) and a 72-point reduction compared to 2019 after switching all purchased electricity at major domestic sites to 100% renewable energy-derived electricity. In the future, we will work on new medium-term targets up to 2030 based on absolute volume rather than intensity, including overseas group companies, leading to the realization of carbon neutrality by 2050.

### Energy consumed




* Indicated for Scopes 1 and 2. For the latest figures for Scope 3, see page 100.
* Errors in *Integrated Report 2022* regarding energy consumption for 2019–2022 have been corrected.

### $CO_2$ Emissions (Converted from Energy Consumption)




* Errors in *Integrated Report 2022* regarding the base unit index for 2019–2022 have been corrected.

## Business operator class evaluation

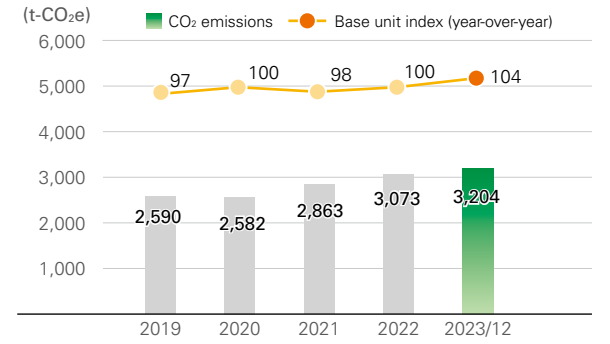
In the business operator class evaluation system* implemented by the Ministry of Economy, Trade and Industry, TOK was designated as the S rank for three consecutive years since 2021.

* Business operator class evaluation system: A system that classifies all business operators who submit periodic reports under the Act on Rationalizing Energy Use into four levels: S (excellent operator), A (operator expected to make further efforts), B (stagnant operator), and C (operator requiring attention).

## Improve energy consumption per base unit in distribution

TOK, which implements a full-lineup strategy **(→ see page 28 "OUTPUT & OUTCOME")**, handles a variety of products and raw materials, including hazardous materials, toxic substances, and refrigerated goods, and the logistics department must store and transport these safely and accurately to maintain quality and performance. In recent years, product shipment volume has been increasing, and TOK expects further increases in the future, so we are working on securing storage space and optimizing transportation routes and methods to control energy consumption. In 2023, the company began direct shipments of export products from the Koriyama plant. From May 2024, TOK started using external consignment warehouses for storing products transported from the Gotemba plant to the distribution center with the aim of expanding and streamlining warehouse operations. In 2024, TOK started constructing a roof at the distribution center as a measure against heat and to improve work efficiency; after completion, the company plans to reduce purchased electricity by installing solar panels. TOK will continue to work on optimizing logistics and will strive to reduce $CO_2$ emissions and improve energy consumption intensity.

### $CO_2$ Emissions in Distribution



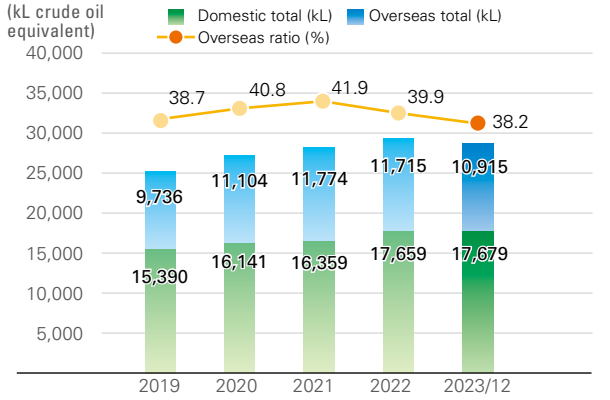

* Errors in *Integrated Report 2022* regarding the $CO_2$ emissions and base unit index for 2019–2022 have been corrected.

## Measures to Prevent Global Warming at Overseas Manufacturing Sites

In 2023, domestic and overseas energy consumption remained almost unchanged as TOK expanded the semiconductor manufacturing materials laboratory and inspection facilities domestically, while overseas, the company transferred the overseas subsidiary manufacturing bases.

Since energy consumption is affected by energy-saving efforts and by changes in production volume and facilities, TOK introduced a system in 2022 to collect and centrally manage environmental-related data, including energy consumption for efficient management. The company started operating this system at overseas sites to visualize energy-saving and $CO_2$ reduction effects. Additionally, TOK begun to grasp and aggregate Scope 3 for overseas sites to reduce $CO_2$ emissions across the entire TOK Group and supply chain.

### Energy consumption at sites in Japan and overseas




* Errors in *Integrated Report 2022* regarding the total of domestic and overseas energy consumption for 2019–2022 have been corrected.

### Future Issues and Initiatives

Over the past several years, climate change has manifested in stronger typhoons and torrential rainfall resulting in major damage to society. Climate change is thought to be caused by fluctuations in the oceans and changes in solar activity as well as the build-up of greenhouse gases and the warming of the oceans due to the hot water discharged from electric power stations and other factors. Toward the target of achieving carbon neutrality in Scopes 1 and 2 by 2050, the TOK Group steadily implements a variety of $CO_2$ emission reduction measures and energy conservation activities.

tok's Human Resource



Tsutomu Ishizuki
*Senior Expert*
*Enterprise Risk Management Dept.*

**To achieve a high-level balance between business expansion and $CO_2$ emission reduction, we will promote the use of renewable energy for purchased electricity and purchase non-fossil certificates both domestically and internationally**

The TOK Group set the medium-term targets as achieving carbon neutrality by 2050, aiming to reduce the Group's $CO_2$ emissions by 30% compared to 2019 by 2030, while emissions are expected to increase because of future business expansion. TOK specializes in fine chemicals, and while emissions are lower compared to general chemical companies with large-scale plants, this target is very challenging because a single measure cannot be expected to have a significant reduction effect. To achieve this goal, TOK will maintain the use of renewable energy for purchased electricity in Japan, promote the use of renewable energy, and purchase non-fossil certificates at overseas sites to reduce Scope 2 emissions. TOK will also continue its steady efforts to reduce Scope 1 emissions.

# Promotion of Resource Recycling: Initiatives to Address Water risk

Key initiatives/Results in 2023

**KPI**

## Water use volume in Japan

| 2023 result | 2030 targets |
|---|---|
| Increase by 7% (vs. 2019) | Reduce by 15% (vs. 2019) |

### Basic Concept

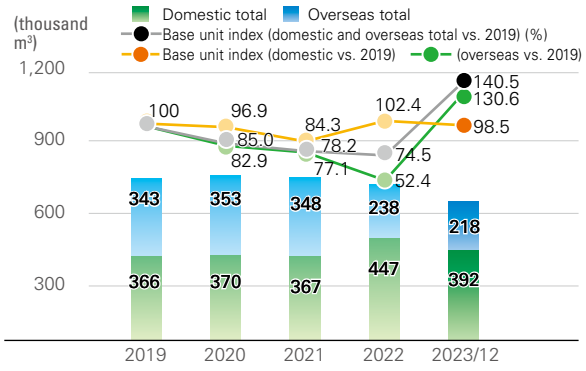
Amid the increasing public attention for water resources as a global sustainability requirement, water is an essential resource for use in the Group's products and manufacturing processes. Therefore, TOK strives to minimize the volume of water consumed for production and to maintain and improve the quality of wastewater. The Group will continue to make environmental contributions through its business activities while monitoring water risks for global environmental conservation in consideration of future generations as a material issue.

## Changes in water consumption

In 2023, water use volume in Japan was 392,000 m³ with a decrease of 12.3% year-over-year and an increase of 7.1% compared to 2019. Water use at overseas sites also decreased by 20,000 m³ from the previous year to 218,000 m³; however, this was due to a decrease in domestic production and the transfer of overseas subsidiary manufacturing bases, which resulted in a 66-point increase in the base unit index (domestic and overseas total) compared to the previous year.

Water use volume changes as manufacturing processes and output change. TOK will continue to reduce water use by monitoring the state of industrial water and city water use and reviewing the use of related equipment.

Changes in water use volume at domestic and overseas sites




## Water Risk Management

Water risks and other natural resource shortage risks are ranked among the ten greatest risks over the next ten years in the *Global Risks Report 2024* published by the World Economic Forum (risk No. 4). To better understand the volume of water use at all sites around the world, the TOK Group clarified the respective risks of water supply, raw materials supply, manufacturing processes, and wastewater emissions from plants. TOK then examined the measures to implement for water risks in the supply chain, including water intake restrictions and flooding risks from natural disasters and the risk of business interruption resulting from water contamination.

## Set a medium- to long-term target

The company implemented proactive measures to reduce water risks in 2018 and worked toward the attainment of company-wide targets since 2019. In 2023, TOK examined its reduction measures for the risk of contamination of piping and equipment at each site, water use operation, and measures to reduce natural disaster risks, and continued to perform the relevant activities based on the plans. As part of this, the company is focused on reducing water use through the full-scale operation of a pure water building (Koriyama), introduction of new circulation cooling equipment (Utsunomiya), and improvement in the water circulation rate of existing cooling equipment (Aso). TOK will continue to implement risk reduction measures to attain the medium- to long-term target of reducing domestic water use by 15% from the 2019 level by 2030.



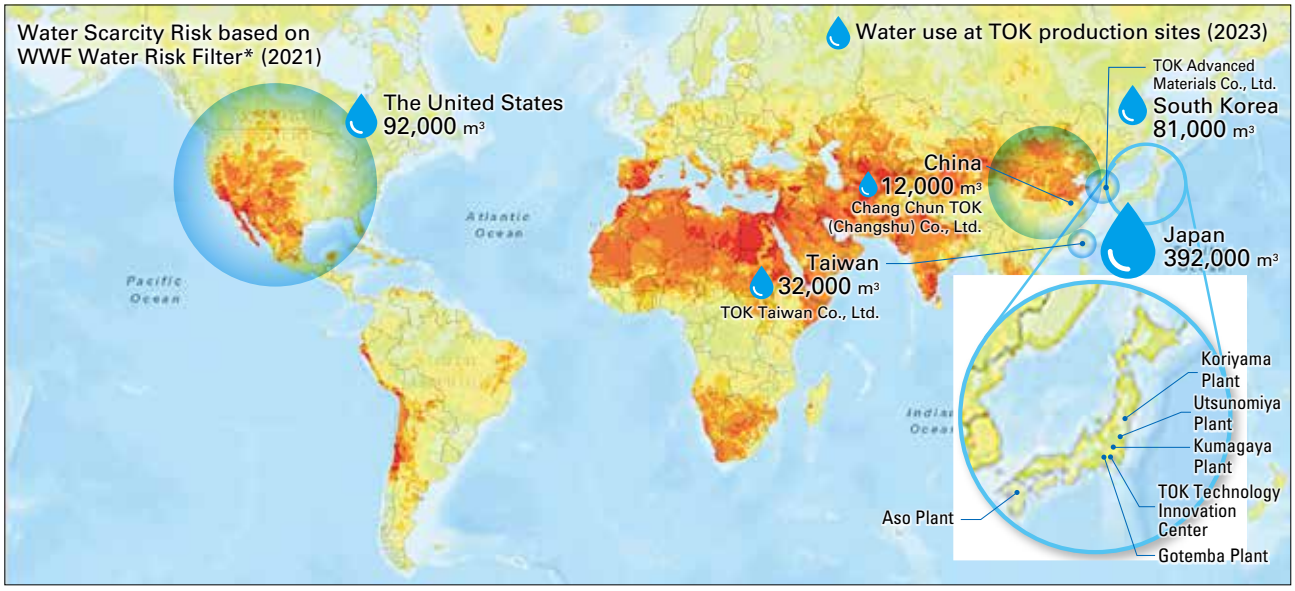

New pure water building at the Koriyama plant

## Worldwide Water Scarcity Risks as of 2021

The risk map below indicates the water scarcity risks closely related to the semiconductor industry, including the manufacturing of materials, using the WWF Water Risk Filter.* On this map, water scarcity represents the physical abundance or scarcity of freshwater resources and has a significant effect on business production, the supply chain, operational cost, and business growth. Water scarcity caused by human activities may also deteriorate from natural conditions (such as dryness and drought). The risks below are calculated by using the functions of water consumption and demand in proportion to the volume of available water in each region.

No serious water scarcity risk has emerged at the production bases of the TOK Group. However, the transient risks of water scarcity in Taiwan in 2022 are likely to recur. To counter this issue, the company will strengthen its BCP measures.

Very low risk Very high risk




* Water Risk Filter: The water risk assessment database developed by the World Wildlife Fund and the German Investment and Development Cooperation (DEG)

## Future Issues and Initiatives

As part of the forest conservation and water resource conservation activities in areas with production sites, TOK has participated in conservation activities in the Aso region (Kumamoto Prefecture) and Lake Inawashiro (Fukushima Prefecture) since 2022 **(→ see page 109 "Conservation of Biodiversity")**. Concerns are rising over the water stress that climate change may impose on water resources. If water intake restrictions, drainage restrictions, or other regulations are strengthened in the future in the regions where the TOK Group operates, water use by TOK Group plants may also be affected. Therefore, the Group will continue to work to reduce water use through water circulation and then reduce pollution risks from the perspectives of both reducing the environmental impact and business continuity.

tok's Human Resource



Lin Kuei-Chin (Sam)
*Administrative Dept., Tongluo Plant TOK Taiwan Co., Ltd.*

### We predict and implement measures against the manifestation of water risks in advance

Taiwan is greatly affected by climate change, and as a result of rainfall falling below predictions in 2022, all industries are showing great interest in water conservation. As dam water levels decrease, the Taiwanese government requests self-imposed or forced water conservation from each company based on the water storage status lamp (green → yellow → orange → red). Therefore, the Tongluo plant predicts water shortages in advance and implements detailed measures according to the color of the lamp.

The largest source of water in Taiwan is rain. When rainfall is low, the risk of drought becomes apparent, making the effective use and maximum efficiency of water resources an essential initiative for companies. With regard to water use in the plant, we set a target of recycling water at least five times and are promoting the sustainable reuse of water resources.

# Promotion of Resource Recycling: Reducing Industrial Waste Emissions and Landfill Disposal

Key initiatives/Results in 2023

**KPI**

**Volume of industrial waste per base unit**

| 2023 result | 2030 targets |
|---|---|
| Up 19 points (vs. 2019) | Reduce by 15 points (vs. 2019) |

## Basic Concept

As measures for a circular economy, the company promotes the 3Rs (Reduce, Reuse, and Recycle). By restricting the volume of generated waste, thoroughly sorting all waste by type, and increasing the volume of recycled waste, TOK is working to make more effective use of its resources. The company strives to maintain zero emissions* by reducing the landfill disposal volume and by processing waste products through combustion or crushing, which is called intermediate treatment, as well as through stabilization and volume reduction initiatives.

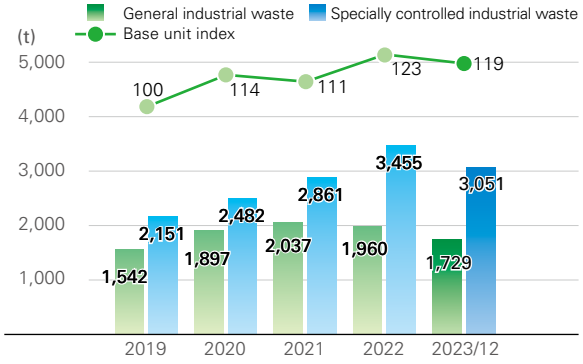
* Zero emissions: Landfill disposal volume (direct or after intermediate treatment) of less than 1% of industrial waste discharged by production activities

## Reduce Industrial Waste Emissions

In fiscal year 2020, TOK set a new medium-term target to reduce industrial waste generation (per base unit) by 15 points compared to 2019 by fiscal year 2030 (a reduction of approximately 1.4 points annually). With this target in mind, TOK has worked to reduce the different types of waste by refining and reusing process effluents, processing and recovering effluent internally, and converting waste into items of value.

In 2023, the company reused process effluents and proactively converted waste into items of value; therefore, the industrial waste per base unit increased by 4 points year-over-year. However, compared to 2019, which is the base year for the medium-term target, it increased by 19 points and failed to meet the target. The TOK Group will continue to promote measures to attain the medium-term targets, including an increase in the items of value and internal processing.

### Amount of industrial waste generation*




* The base unit index is calculated after calculating general industrial waste and specially controlled industrial waste.
* Errors in the *Integrated Report 2022* regarding the figures for general industrial waste and specially controlled industrial waste for 2019 to 2022 have been corrected.

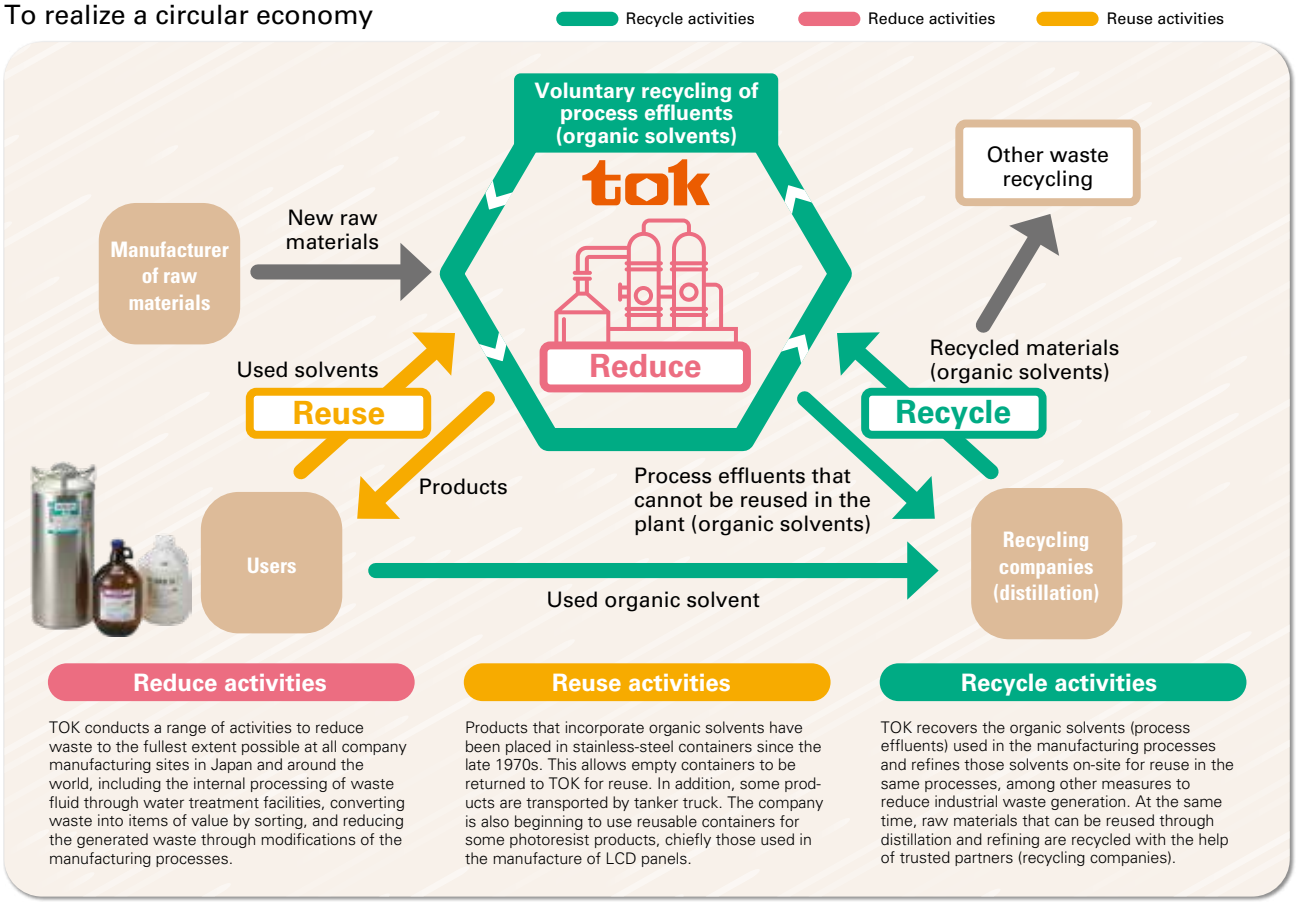
## Achieved zero emissions

In 2023, industrial waste for landfill disposal after intermediate treatment stood at less than 1% of total waste; therefore, TOK achieved zero emissions for ten consecutive years since 2014.

## Techniques for Recycling Organic Solvent Effluents

TOK strives to effectively use the waste generated by its plants. For example, waste oil is sorted by type of recyclable solvent, and ratings of impurities and purity are introduced with strengthened control applied. In this way, it is possible to reuse waste oil that was previously disposed of as industrial waste. For other waste liquids that are discharged, TOK commissions businesses that can use the liquids as recycled resources as much as possible after understanding the treatment process. In addition, each site continues to focus on recycling activities, such as turning plastic drums into valuable materials and turning Styrofoam into ingots, in addition to plastic, glass, and metal waste, which contributes to the realization of a circular economy through the effective use of resources.

## To realize a circular economy




**Reduce**/This refers to reducing the volume of waste material generated. Reduction involves minimizing the volume of materials in products in order to minimize the volume that is eventually discarded.
**Reuse**/This refers to the repeated use of manufactured goods, containers, and other products in order to reduce the volume of waste materials generated and to conserve resources.
**Recycle**/This refers to the use of waste materials as resources rather than incinerating or sending the materials to a landfill, thereby conserving resources and preventing pollution.

### tok's Stakeholders

**As TOK works to realize a circular economy in semiconductor manufacturing processes, the company strives to further advance the distillation and purification technology of used solvents.**



Mr. Kosuke Wada (right)
*Representative Director*
Mr. Hideki Yamamoto (left)
*Plant Manager*
Tokyo Junyaku Kogyo Co., Ltd.

TOK is engaged in the manufacture of chemical industrial chemicals, purification of chemical substances, development of related processes, and the manufacture and sale of equipment and facilities, as well as the business of recycling used solvents.

TOK has had a 50-year relationship with Tokyo Ohka Kogyo, which was the catalyst for the company to start doing business with customers in the electronics industry. Currently, TOK is mainly handling several types of solvents, focusing on photoresist-related chemicals. Specifically, TOK distills and purifies used solvents purchased from Tokyo Ohka Kogyo, inspects them, and then sells them back to Tokyo Ohka Kogyo for reuse as raw materials. As production volume increases, the volume of used solvents from Tokyo Ohka Kogyo is trending upward, but TOK is collaborating to establish efficient collection and transportation methods.

Furthermore, the quality requirements of semiconductor manufacturers, who make up the majority of Tokyo Ohka Kogyo's customers, are extremely high, which demands high-purity products with impurities removed to the maximum possible, and as semiconductor technology advances, these requirements are becoming increasingly stringent, which in turn greatly raises the quality demands on TOK. To meet the requirements of Tokyo Ohka Kogyo and the other semiconductor manufacturers, TOK strives for continuous improvement in all manufacturing processes and inspection technologies to further enhance impurity removal through distillation and purification. Going forward, TOK will continue to reduce waste and make effective use of resources through the reuse and recycling of used solvents in response to environmental issues and work towards solving the different challenges for the realization of a circular economy.

# Air, Water, and Soil/Preserve Biodiversity

Key initiatives/Results in 2023

**KPI**

**NOx emissions to the air**

**6.5 t reduction** (year-over-year)

**Estimated CFC leakage volume**

**Approximately 172 t-$CO_2e$**

**Employee training on CSR**

**Participation rate: 100%**

## Basic Concept

For global environmental conservation considering future generations as a material issue, the Group takes steps to lighten its environmental impact by reducing the emissions of greenhouse gases* and chemical substances and by upgrading equipment, switching fuels, and reviewing the manufacturing processes to preserve the air, water, and soil environments upon which the livelihood of employees depend.

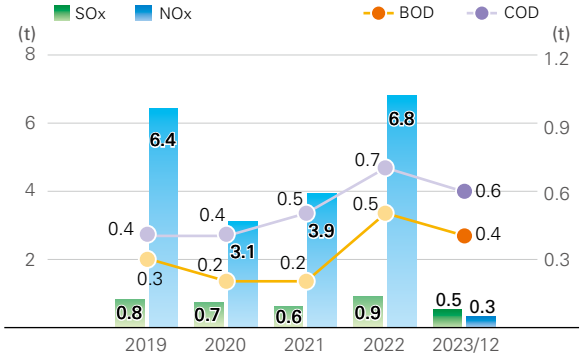
* Greenhouse gas: Gas in the atmosphere that allows sunlight to pass through but absorbs infrared rays emitted from the ground and seas. These gases are believed to cause global warming.

## Prevent Air, Water, and Soil Pollution

**• Reducing emissions of air-polluting substances**

TOK endeavors to reduce the emissions of sulfur oxides (SOx) and nitrogen oxides (NOx) as key substances related to air pollution; the company uses natural gas-based boilers with low emissions at all plants, except those that have no city gas supplies in the surrounding areas. In 2023, SOx emissions related to production activities decreased by 0.4 tons year-over-year. NOx emissions decreased by 6.5 tons year-over-year because of the reduced operating time of power generators at the Koriyama Plant.

SOx/NOx/BOD/COD emissions




**• Monitoring soil pollution**

The TOK Group manages the risk of soil and underground water pollution by recognizing that such pollution could threaten the safety and health of local residents and employees. In the event surveys discover soil or underground water contamination, the company rapidly discloses information and takes remedial action to ensure the health and safety of local residents.

In addition, the TOK Technology Innovation Center is a member of the Koza River Purification Association, which comprises the plants, offices, and municipalities located along the rivers in the Koza District of Kanagawa Prefecture. As such, the Center endeavors to conserve water quality and maintain and improve the environment of the rivers in the neighborhood.

**• Reducing emissions of water-polluting substances**

TOK sets its own management standards for treating the wastewater discharged from its sites. The standard is stricter than the local regulations, laws, and ordinances for purifying wastewater, such as activated sludge processing, at its process wastewater treatment facilities. Only water that satisfies the standards for cleanliness is released into the public water system.

The company periodically evaluates water quality to ensure compliance with its voluntary standards and with all laws and regulations. In fiscal year 2023, the emissions were lower than the voluntary standards and lower than the values specified in local laws and regulations. TOK will continue to reduce emissions by maintaining and managing its process wastewater treatment facilities so that the water released satisfies all applicable standards.

The BOD emissions discharged into public water areas in 2023 decreased by 0.1 t from the previous year to about 0.4 t, and COD emissions decreased by 0.1 t from the previous year to 0.6 t.

## Countermeasures against Ozone-Depleting Substances

The TOK Group uses the ozone-depleting chlorofluorocarbons CFC-11 and CFC-12 as coolants in refrigerators and freezers. The entire Group is working to reduce the use of these substances and to switch to alternative substances and green coolants (non-CFC). The revised Act on the Rational Use and Proper Management of Fluorocarbons mandates regular inspections and the reporting of any leakage; therefore, TOK is updating its environmental system for the proper management, filling, and disposal of CFCs. As a result of these appropriate actions, the leakage volume stood at approx. 172 t-$CO_2$e in 2023. TOK will continue group-wide inspections and to periodically replace fire extinguishers that use ozone-depleting substances with the aim of further strengthening management to prevent any CFC leakage.

* Data collection period: April 2023 to March 2024

## Comply with PRTR Act

Under the Japanese Pollutant Release and Transfer Register (PRTR) Act, companies must manage and report to the government the production, release, and transfer of designated chemical substances. TOK relies on its chemicals and PRTR management system to accurately calculate and report these figures. Of the Class I Designated Chemical Substances, which is a list of 515 substances defined by the PRTR Act, TOK handled 86 substances (a total of 2,012 tons) in 2023, including an estimated 2 tons released into the atmosphere and public water systems. TOK measures the emissions of VOCs and harmful air-polluting substances through PRTR surveys as a member of the Japan Chemical Industry Association.

* Data collection period: April 2023 to March 2024

## Preserve biodiversity

The TOK Biodiversity Protection Declaration guides the TOK Group's activities to preserve biodiversity. In 2023, TOK implemented CSR training for all directors, auditors, and employees at its domestic sites, as well as employees of partner companies for some operation centers. The company also dispatched six employees to participate in the afforestation activities with residents of Kanagawa Prefecture through the Kanagawa Trust Midori Foundation. TOK will continue to preserve biodiversity with the intention of starting a ripple effect inside and outside the company and spreading biodiversity activities throughout society.

At the Aso plant, personnel participate in the forest preservation activities organized by Aso Green Stock, a public interest incorporated foundation with the intention of improving and enhancing the watershed cultivation function* within the Aso region and to establish an environment with a sustainable ecosystem. TOK designated an area on the north somma of Mt. Aso (736 $m^2$) as the TOK Forest" In 2023, 31 employees worked to weed the area, cut bamboo, and engage in other activities on three occasions. At the Koriyama plant, personnel collected stranded aquatic plants in Lake Inawashiro, located in the approximate center of Fukushima Prefecture. Because stranded aquatic plants decay and decrease the water quality, the removal of aquatic plants is an important environmental conservation activity that serves to maintain water quality.

* Functions of the forest to reduce flooding from rainfall, preserve water resources, and purify water

## Future Issues and Initiatives

The TOK Group implemented a variety of activities and measures to prevent global warming and the pollution of the air, soil, and water and worked to maintain biodiversity. In all of these categories, the Group will continue to appropriately maintain and manage its facilities and equipment to ensure continuous normal operation, thereby fulfilling its social responsibility as a company that handles chemical substances.

tok's Human Resource



Takehiro Shigihara
*Facilities Sec., Koriyama Plant*

### We will conserve biodiversity and water resources through aquatic plant collection activities, leading to the sustainability of the global environment, business, and the local community

As part of its biodiversity conservation efforts, the Koriyama plant cleans the road as part of Koriyama City's I Love Road (road cleaning) project, and participates in the cleaning of Lake Inawashiro, which is an important water resource for the plant. At Lake Inawashiro, personnel collect aquatic plants floating on the lake surface to prevent them from decomposing and leading to the loss of biodiversity and deterioration of water quality. The collected aquatic plants are reused as fertilizer in the fields as part of the creation of resource circulation. The number of participants increases with each activity, and the TOK Group will continue to preserve biodiversity and the valuable water resources, contributing to the local community and global environment conservation and leading to the sustainability of business.

# Strengthening Activities Related to Product Responsibility and Product Stewardship

Key initiatives/Results in 2023

**Key measures**

## Construction of a chemical substance information management system and continuous strengthening and operation of chemical substance management system

### Basic Concept

Management of chemical substances is one of the key priorities for TOK from the perspective of social responsibility. In addition to compliance with all laws and regulations, group-wide efforts ensure the proper management of chemical substances in the supply chain while TOK remains mindful of globally expanding environmental issues. The Group defined its responsibility to local and international communities as one of the TOK Group Creeds that break down the management principles, and TOK has been working to reduce the impact on the environment by combating global warming, managing chemical substances, effectively utilizing resources, and reducing waste, thereby gearing up the product stewardship activities for supply chain sustainability as a material issue.

### Establish chemical substance information management system

In managing chemical substances, systematization is essential because of the need for collecting and managing vast amounts of diverse information and making quick decisions. TOK has used a chemical substance management system since 2005 to collect and centrally manage substance and regulatory information. In 2022, TOK considered introducing a function to quickly determine compliance with the environmental laws of different countries as part of further strengthening measures for environmental law compliance as well as to improve the efficiency of chemical substance investigations from 2023 onward. As the first stage in the subsequent functional expansion in 2024, the company achieved automatic judgment at the time of shipment, leading to more efficient compliance with environmental laws. In the future, TOK will continue to promote information sharing and efficiency with related parties through further functional expansion in order to realize safer chemical substance management.

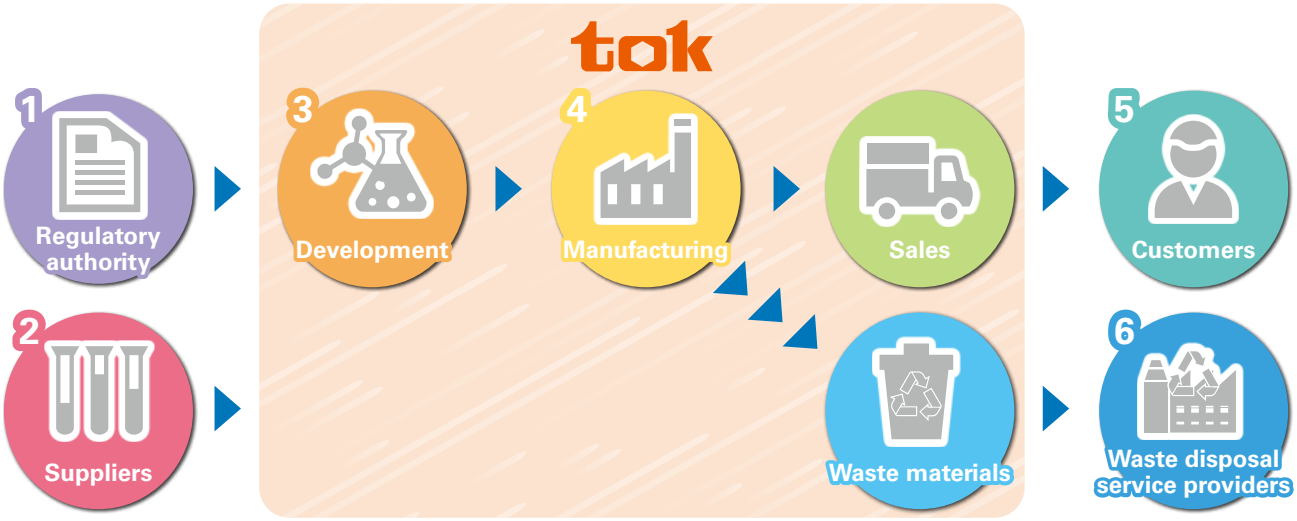
### Continue to strengthen and operate chemical substance management system

TOK is working to maintain and strengthen the system to properly share information on chemical substances throughout the supply chain as part of its product stewardship activities, a key pillar of Responsible Care. In compliance with international laws and regulations and in response to customer requirements, the company clarifies the management of chemical substances under the TOK Group Chemical Management Standards and uses the Standards as a means to properly share information on chemical substances within the supply chain. These standards cannot be set once and used forever without change but must be updated with the latest information according to the situation at hand. In 2023, TOK drafted the eighth edition of the TOK Group Chemical Substance Management Standards as revised in 2022 and continues to obtain and manage the latest information on chemical substance regulations in each country. In addition, TOK will ensure that suppliers promptly update chemical substance information on raw materials and reflect that information into the SDS and labels of all products, thereby further providing timely and accurate chemical substance information to customers.

### Accurately evaluated chemical substance risks in a timely fashion and properly managed these risks

The risk management of chemical substances can be interpreted as risk management of each part of the supply chain. To this end, it is necessary to provide information in accordance with the flow of materials. In each of the development, manufacturing, sales, and disposal stages, TOK creates and implements procedures for complying with all laws and regulations and managing risks.

## Chemical substance risk management in each stage of the supply chain process




### ❶ Obtaining information about revisions to laws, regulations, and treaties

For the chemical substances handled by the TOK Group, the company has a system for complying with legal requirements, ascertaining the use of regulated substances under the REACH regulation*1 and laws governing conflict minerals,*2 and determining whether or not such substances may be used. Moreover, for chemical substances that are likely to be banned from the future tightening of regulations, TOK formulates reduction plans for all products and manages the progress of such plans so that the company can stop using such substances before the laws come into force.

### ❷ Procurement stage

In addition to the SDS*3 for raw materials, TOK asks suppliers to submit the Warranty of Nonuse of Prohibited Substances to guarantee that the prohibited substances in the TOK Group Chemical Management Standards*4 are not contained in raw materials. TOK shares chemical substance information with suppliers based on these forms and pursues the correct identification of chemical substances contained in all raw materials.

### ❸ Development stage

For newly developed raw materials, in addition to the legal and regulatory information, TOK checks whether such raw materials contain chemical substances subject to the TOK Group Chemical Management Standards. Furthermore, the company performs similar checks for customer requirements for newly developed products and formulates a substitution plan in the event the specified standard is exceeded.

### ❹ Production stage

All raw materials used in the manufacture of products are subject to occupational health and safety risk assessments. TOK identifies hazardous factors in the production environment, clarifies the hazard level, implements measures to mitigate and eliminate the hazardous factors based on that risk level, and takes action to lower all risks. In this way, TOK maintains the proper work environment for all personnel.

### ❺ Marketing stage

By linking the ERP system for managing product shipment volumes and the chemical substance management system that contains product composition data, the company automatically calculates the transfer volume of chemical substances, reports the proper volumes, and requests their application in accordance with the Chemical Substances Control Act*5 and the PRTR Act*6 of Japan and with all environmental laws and regulations of importing countries. The company also enabled the issuance of SDS documents in accordance with current local laws and regulations using the SDS preparation system so that proper safety information will be shared with all users.

### ❻ Disposal stage

Waste from each site is thoroughly sorted by type and recycled and properly disposed of when necessary. For the contracted industrial waste disposal service providers, TOK provides information about the type of waste and handling precautions through waste data sheets (WDS). The company periodically visits service providers for on-site audits to ensure that all waste is being properly disposed of in accordance with the contractual agreements.

*1 REACH regulation: Registration, Evaluation, Authorization and Restriction of Chemicals; This EU regulation manages the registration, evaluation, and accreditation of chemical substances through an integrated system with the aim of ensuring complete fulfillment of responsibility on the producers' part as well as thorough compliance with preventive principles.
*2 Conflict minerals: Four minerals (tin, tantalum, tungsten, and gold) produced in the Democratic Republic of the Congo and surrounding conflict zones; These minerals are regulated under the U.S. Dodd-Frank Act (financial regulation reform act). From the perspective of responsible mineral procurement, the TOK Group includes cobalt and mica in the scope of investigations in addition to the four minerals above.
*3 SDS: Safety Data Sheet
*4 TOK Group Chemical Management Standards: Clarifies chemical substances to be managed in order to respond to international laws and regulations and customer requirements
*5 Chemical Substances Control Act: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture (Japan)
*6 PRTR Act: Act on Confirmation of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Japan)

## TOPICS

### Initiatives in Response to Global Environmental Regulations

In 2022, PFHxS was newly added to Annex A (global ban) of the POPs Convention. The overall regulation of PFAS was also considered under the EU REACH Regulation and the United States TSCA. In this way, global regulation of persistent and highly accumulative chemical substances has proceeded in recent years. In Japan, major chemical substance management regulations have been revised one after another, such as the Industrial Safety and Health Act (addition of PFHxS and its salts as Class I Specified Chemical Substances) and the PRTR Act. TOK personnel need to properly disclose the information on the safety of chemical substances contained in all chemical products to customers and employees and to properly develop and manufacture beneficial chemical products while taking environmental considerations into account. In particular, the PFAS restriction proposed by the EU in 2023 is targeted at a wide range of chemical substances and will affect TOK and other chemical manufacturers as well as a broad range of industries engaged in equipment, containers, and packaging materials. TOK complies with the regulations and proactively provides information concerning safe handling through communication with industrial associations and regulatory authorities in order to minimize the impact of environmental regulations on production.

### Properly Comply with PCB Special Measures Act

The company has undertaken the proper storage and management of low-concentration PCBs* in accordance with the prescribed storage standards for waste containing PCBs at three sites (TOK Technology Innovation Center (formerly the Sagami Operation Center), Sagami Operation Center, Shonan Operation Center, and Gotemba plant) while filing the necessary reports with the government in 2022. In 2023, TOK continued to dispose of electrical equipment and waste containing PCBs according to the roadmap the company created, which resulted in the completion of PCB-containing equipment disposal at the Gotemba plant. The company is also proceeding with the disposal of such equipment at other sites within the legally prescribed period (by 2027), and TOK will continue to formulate equipment renewal plans in consideration of avoiding disruptions to business activities while disposing of them in stages.

* Polychlorinated bipheny (PCB): A kind of organic compound; PCBs were formerly used for thermal media, insulating oils, coatings, and other applications because for the properties of heat resistance and electrical insulation. However, because of poor degradability and high toxicity, PCB production was discontinued in 1972. Nevertheless, little progress has been made on disposal, and the managers responsible for storage are required to place PCBs under strictly controlled conditions.

## Future Issues and Initiatives

Chemical substance management at material manufacturers is essential for achieving the objectives of legal compliance, securing customer trust, and environmental protection. To this end, TOK must actively work on sharing information on the hazards of chemical substances and to have a system in place to manage safety, quality, and the environmental impact. Regulations related to chemical substances are changing rapidly, and the basic approach to regulation is shifting from the regulation of chemical substances to regulation of how chemical substances are used (risk management). TOK will work to build a system to share risk information on chemical substances in a timely and appropriate manner.

tok's Human Resource



Takayoshi Mori
*Manager,*
*Chemical Substance*
*Management Sec.,*
*Environment,*
*Health and Safety Dept.*

### We will pursue further safety and sustainability through continued product stewardship activities

Chemical substances are essential to daily life and industrial activities. For example, chemical substances are necessary in food preservation and cooking, pharmaceutical manufacturing, and the development of building materials; modern society could not function without them. While chemical substances play many roles in this way, some substances have unfortunately affected human health and the environment. Therefore, in dealing with chemical substances, it is necessary to emphasize safety and sustainability, and TOK will continue product stewardship activities by considering the environmental impact and health risks when using and disposing of products and will continue to search for recycling and alternative materials.

# Occupational safety and health

**Key initiatives**

## Comprehensive inspection of labor accident risk at all TOK Group sites



### Basic Concept

The TOK Group recognizes its social responsibility as a company that operates businesses, as well as a requirement from all stakeholders, to ensure the safety and health of workers who support supply chain sustainability. By providing a safe, comfortable workplace, TOK aims to improve employee engagement as a key strategy in the TOK Medium-Term Plan 2024 while fostering and setting in place a culture that emphasizes safety.

### Health and Safety System

The occupational health and safety system, which is headed by the Director, Division Manager of the Manufacturing Division, works to prevent accidents based on the annual action plan of the Safety and Health Committee. Company-wide issues that cannot be addressed by a single site on its own are examined by the Safety and Health Liaison Unit. The Safety and Health Liaison Unit shares information about the measures that must be horizontally developed across all sites. Based on this organizational structure, the Company promotes the prevention of injuries and fire accidents caused by chemical substances as well as severe injuries caused by machinery or heavy objects. In the event of a workplace accident, TOK implements thorough safety measures to improve safety and rolls such measures out horizontally across the organization.

### Acquiring ISO 45001 Certification

Currently, TOK receives an increasing number of questions and requests on CSR from stakeholders. The company formulated the TOK CSR Policy and strengthened the management system for occupational health and safety as a component of the CSR Policy. The Occupational Health and Safety Management System certification (ISO 45001) has been completed at all domestic sites, including the Gotemba plant (2020), Koriyama plant, Utsunomiya plant, Aso plant (2021), the headquarters, the TOK Technology Innovation Center, Kumagaya plant (2022), and the Distribution Control Center (2023). Through this operation, TOK is promoting measures to address the aging of employees, the saving of labor, and mental health issues.

The company also implemented measures in accordance with the RBA Code of Conduct. TOK obtained Platinum certification (the highest level) for the Distribution Control Center (2022) and Gold certification for the Koriyama plant (2023) in the RBA VAP audit. The TOK Group will continue to establish the necessary systems at domestic sites and will provide safe and comfortable workplaces for TOK employees at each site and for the employees of affiliated companies, thereby achieving supply chain sustainability as a material issue and enhancing the happiness of workers.

### Prevention of Workplace Accidents

TOK established the Occupational Health and Safety Policy linked to the CSR Policy. In its production activities, the company places the utmost priority on the maintenance of the health and safety of workers and implements measures to prevent accidents, natural disasters, and diseases in the workplace thereby fostering group safety. In particular, the Safety and Health Committees at each site have worked to prevent accidents, while aiming to maintain and improve all related factors. However, 14 workplace accidents (one with lost work-days and 13 without) occurred in 2023, resulting in many more accidents than in the past several years. The causes of these accidents included insufficient risk assessment during nonroutine work and violations of safety regulation rules.

**• Strengthening safety inspections**

In the Workplace Safety Emergency Declaration issued by the president in April 2023, all officers and employees of the TOK Group shared the determination to "not cause or allow new workplace accidents," and the Group continues the implementation of a variety of measures. In addition to strengthening the 5S activities TOK has been promoting, on-site safety inspections have been conducted from different perspectives than before at all sites, including overseas, by conducting interview surveys on hazards during work and dynamic

safety inspections focusing on unsafe actions by workers. By conducting more stringent inspections than before, TOK has made progress in identifying and visualizing the risks that could lead to chemical burns, leakage accidents, and static electricity ignition, and the company is implementing preventive measures sequentially.

**• From past failures to fostering a safety culture**

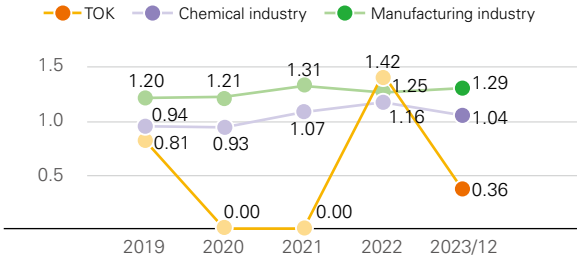
To nurture core human capitals for workplace safety management, TOK has incorporated external training using past workplace accidents (failures) as case studies. By increasing opportunities to discover potential risks and approach safety from multiple angles for each individual, TOK is enhancing awareness and problem-solving skills.

Regarding emergency response manuals in the event of accidents or workplace incidents, the company is reflecting on the parts that did not go well in past drills and actual situations, confirming action standards and various roles through drills based on various assumed scenarios, and using the lessons learned from past failures to further foster a culture of safety.

**• Promoted improvement activities incorporating inputs from internal audit and third-party review**

TOK conducts integrated internal audits concerning occupational safety, quality, and the environment. By proactively appointing internal auditors from other sites and new internal auditors, the company promotes the upgrading of the skills of internal auditors, as well as information sharing concerning workplace accident control and environmental pollution control. The company also considers reviews by external institutions to be valuable opportunities to obtain third-party evaluations and information on the handling of chemical substances, antistatic measures, and workplace accident control, which then leads to improvements.

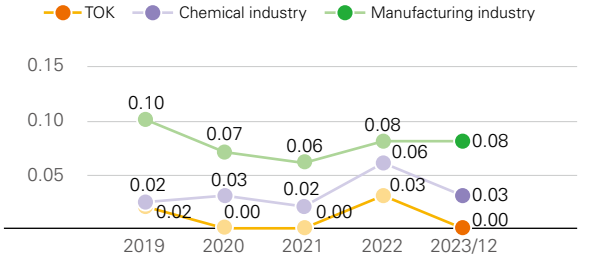
### Frequency rate of workplace accidents (unconsolidated)




* Frequency rate: Shows the frequency of accident occurrences as the number of deaths and injuries due to workplace accidents per million work hours
Frequency rate = (number of deaths and injuries due to workplace accidents/number of work hours) × 1,000,000
(Number of deaths and injuries due to workplace accidents = number of deaths and injuries resulting 1 or more lost workdays)

* Tokyo Ohka Kogyo's frequency rate and severity rate are calculated for the period from December 11, 2022, to December 10, 2023.

### Severity rate of workplace accidents (unconsolidated)




* Severity rate: shows the severity of accidents as the number of lost workdays per thousand work hours
Severity rate = (number of lost workdays/number of work hours) ×1,000
(Number of lost workdays = number of lost workdays of dead and injured workers due to workplace accidents)
Source of data for chemical and manufacturing industries: Ministry of Health, Labour and Welfare's Survey on Industrial Accidents

### Future Issues and Initiatives

Based on the Occupational Health and Safety Policy, TOK acquired ISO 45001 certification for domestic sites and has advanced initiatives for occupational health and safety. However, the number of workplace accidents in 2023 has not decreased. In order to improve the TOK Group's safety level, the company will continue to foster safety awareness in each employee through planned education and training while focusing on the implementation of effective workplace accident prevention measures, strengthening of risk management, and establishing autonomous chemical substance management at each site to make the safety culture foundation more robust.

tok's Human Resource



Kohei Ohtomo
*Deputy General Manager*
*Environment,*
*Health and Safety Dept.*

### We are advancing more proactive preventive measures based on the premise that humans make mistakes and equipment breaks down

The ultimate goal is zero workplace accidents; however, the company believes that it is not impossible to achieve if each employee heightens the sense of danger, and everyone creates a culture of safety together. By distributing highly realistic workplace accident information through the use of videos and photos, TOK is increasing the number of colleagues who can think proactively about causes and countermeasures and is raising sensitivity to notice potential risks at each site. Furthermore, in the future, the company will advance multiple layers of preventive measures based on the more proactive thinking that humans make mistakes and equipment breaks down as the company strives to create an even safer workplace.

Data Section

# Data Section

116 Trends of Key Ten-Year Data and Analysis
125 Photoresist Data
126 Consolidated Financial Statements
131 Stock Information
132 Global Network
134 Corporate Information/External Evaluation
135 Third-Party Verification Report

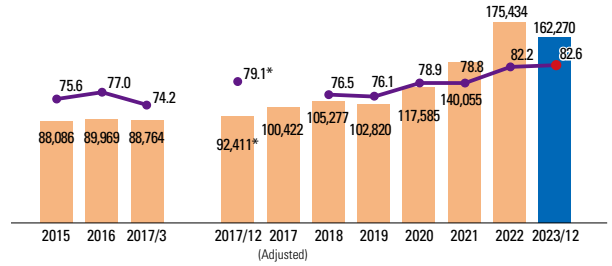
# Trends of Key Ten-Year Data and Analysis

## Ten-Year Financial Highlights

### Net sales/Overseas sales ratio*

**162,270** million yen **82.6%**

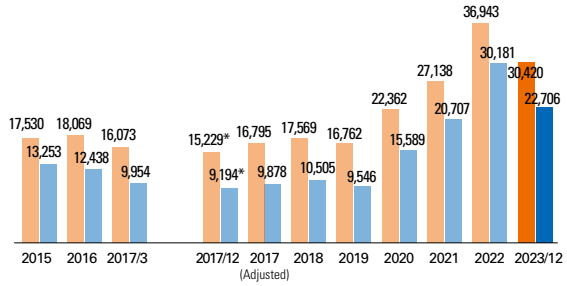
Net sales (millions of yen) — Overseas sales ratio (%)




### EBITDA/Operating income*

**30,420** million yen **22,706** million yen

EBITDA (millions of yen) — Operating income (millions of yen)



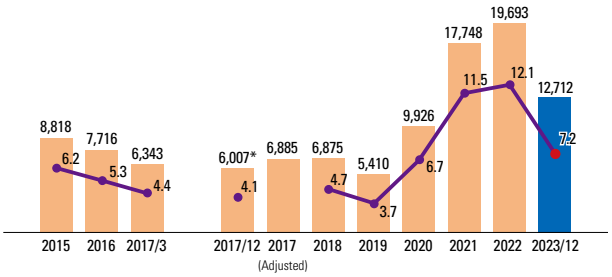

Even though TOK mainly operates in a semiconductor industry of rapid technological changes and a cyclical nature, both net sales and the capability for cash generation (EBITDA) show a long-term trend for expansion due to management from a long-term perspective in units of decades coupled with efforts made in both cutting-edge and legacy fields. Although revenue and profits decreased in FY 2023/12 from the impact of overall semiconductor market contraction, TOK expects record-high sales and the second-highest EBITDA and operating income in FY 2024/12. In particular, in recent years, with the expansion of the generative AI market, TOK has expanded its market share of materials for advanced semiconductors, including EUV photoresists, ArF photoresists, and packaging materials for HBM, while maintaining the top global market share in legacy materials of g-line and i-line photoresists for power semiconductors that contribute to decarbonization, resulting in Group earnings maintaining strong downward rigidity and high upward elasticity against the volatility of the overall semiconductor market **(see pages 54–57, "Message from the Director of Marketing and Development")**.

* Because of the change in the fiscal year-end, the fiscal year that ended December 31, 2017, was an irregular nine-month period in Japan but 12 months overseas.

### Profit attributable to owners of the parent*/ROE

**12,712** million yen **7.2%**

Profit attributable to owners of the parent (millions of yen) — ROE (%)



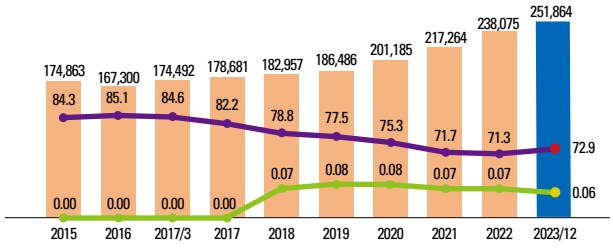

The profit attributable to owners of the parent for FY 2023/12 decreased by 35.4% compared to the previous year because of the following: a decrease in operating income and the recording of business restructuring expenses associated with the transfer of the equipment business and losses on the sale of affiliated company shares associated with the restructuring of the supply chain for high-purity chemicals. TOK expects a reversal to growth for FY 2024/12, and TOK is focusing on balance sheet management that equally emphasizes ROIC and ROE, aiming for ROE of 13% in 2030 **(see pages 40–43, "Message from the Executive Officer of Accounting and Finance")**.

* Because of the change in the fiscal year-end, the fiscal year that ended December 31, 2017, was an irregular nine-month period in Japan but 12 months overseas.

### Total assets/Equity ratio/Debt-to-equity ratio

**251,864** million yen **72.9%** **0.06** times

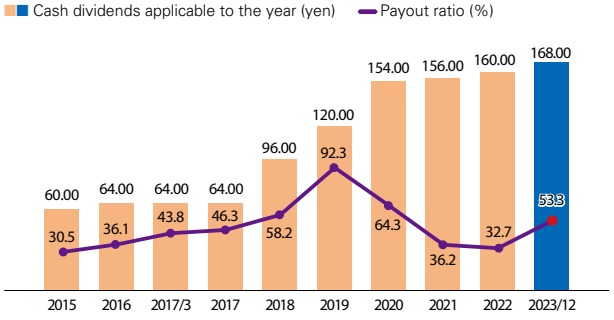
Total assets (millions of yen) — Equity ratio (%) — Debt-to-equity ratio (Times)




Under the cash reserve policy with the objective of developing technologies in anticipation of a super-long time frame, continuing to make challenges over a super-long time frame, and responding rapidly in the event of the unexpected (restoration and rebuilding following major disasters), TOK promoted BS management for preparing and effectively utilizing our financial foundation looking beyond 2030 **(see pages 40–43, "Message from the Executive Officer of Accounting and Finance")**. The equity ratio remained above 80% for many years but has been adjusted to around 70% as a consequence of long-term debt financing, better shareholder returns, large-scale share buybacks, and other measures.

### Dividends applicable to the year per share/Payout ratio

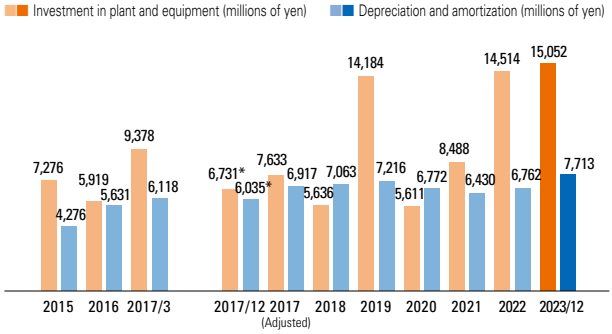
**168.00 yen** **53.3%**




Departing from the basic policy of maintaining the consolidated payout ratio of 30% or more until FY 2016/3 and of 40% or more from FY 2017/3, TOK introduced a new dividend policy targeted at DOE of 3.5% starting with the year-end dividend in FY 2018/12. Furthermore, from the year-end dividend for FY 2021/12, TOK set a target of DOE 4.0% to realize *a trade-on between growth investment and shareholder returns* while meeting the expectations of long-term investors **(see pages 40–43, "Message from the Executive Officer of Accounting and Finance")**.

### Investment in plant and equipment/ Depreciation and amortization

**15,052 million yen** **7,713 million yen**

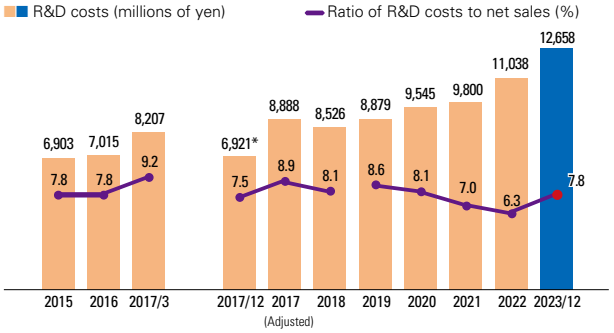



Depreciation and amortization increased as a result of large-scale capital investments up to the TOK Medium-Term Plan 2018; however, since the TOK Medium-Term Plan 2021, TOK is investing in production equipment with longer depreciation periods so that depreciation and amortization will increase at a more moderate pace. Currently, TOK is promoting its largest-ever capital investment, mainly in production facilities, to achieve TOK Vision 2030 **(see pages 40–43, "Message from the Executive Officer of Accounting and Finance")**.

* Because of the change in the fiscal year-end, the fiscal year that ended December 31, 2017, was an irregular nine-month period in Japan but 12 months overseas.

### R&D costs/Ratio of R&D costs to net sales

**12,658 million yen** **7.8%**



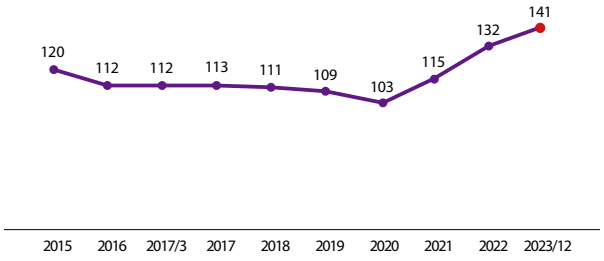

TOK continuously invests about 8% of net sales in R&D. TOK also aims to achieve and maintain 200% R&D efficiency (operating income over the past five years divided by R&D costs over the preceding five years) as an R&D KPI while apportioning any surplus over 200% to R&D investment in medium to long-term strategic investments and super-long-term themes for the next ten years and thereafter. Currently, TOK is focusing on initiatives to ensure TOK's growth regardless of which technology blooms and spreads in the market in the future through TOK's largest-ever R&D investment **(see pages 54–57, "Message from the Director of Marketing and Development")**.

* Because of the change in the fiscal year-end, the fiscal year that ended December 31, 2017, was an irregular nine-month period in Japan but 12 months overseas.

### Exchange rate

**141 yen**

(Yen/U.S. dollars, as of the end of each fiscal year)

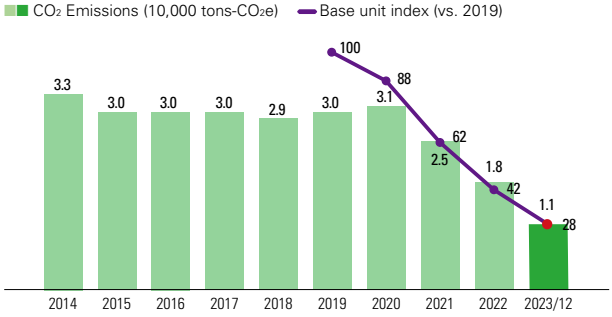



While the current weak yen environment has a generally positive impact on TOK's performance, TOK is also experiencing negative impacts from rising imported material costs, and TOK is focused on minimizing these effects. Specifically, for the control of financial risks due to exchange rate changes and liquidity, TOK now implements risk hedge measures through forward exchange contracts while promoting BS management considering the recent increases in global risks. As part of these efforts, TOK intends to advance global cash management to include adjustment of the balance of cash positions among overseas sites.

# Ten-Year Nonfinancial Highlights

### $CO_2$ Emissions (Converted from Energy Consumption)*

**11,000** t-$CO_2e$ **28** Base unit index



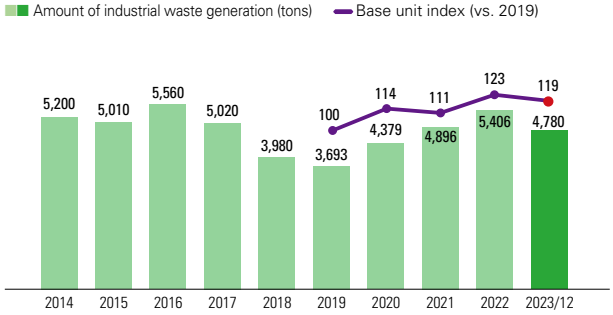

Under the former target, TOK made efforts to reduce energy-related $CO_2$ emissions per base unit of 15 points by FY 2030 (compared to 2019) and envision carbon neutrality by FY 2050. The figure in 2023 decreased by more than 35 points year-over-year because of the shift in February 2023 of 100% of purchased electricity at all key domestic sites to renewable energy.

From 2024, TOK set a new medium-term target to align the growth strategy with the 1.5°C target by 2030 in order to reduce the Group's consolidated absolute emissions (Scopes 1 and 2) by 30% compared to 2019 **(see pages 39, 72–73, 76)**.

* Unconsolidated basis and consolidated domestic subsidiaries in Scopes 1 and 2;

### Volume of Industrial Waste*1

**4,780** tons **119** Base unit index

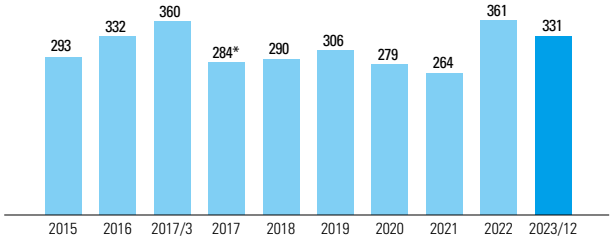



TOK achieved zero emissions*2 for ten consecutive years as the volume of its industrial waste headed to landfill disposal via intermediate treatment remained below 1% of the total. TOK targets a reduction of 15 points in total for industrial waste by 2030 compared to 2019 (per base unit). Although the figure decreased by 4 points year-over-year in 2023 because of production decreases through company efforts to refine and reuse process effluents to internally processed waste, to internally collect waste, and to convert waste into items of value, it was 19 points higher compared to 2019.

*1 Total sum of general industrial waste and specially controlled industrial waste. Unconsolidated basis and consolidated subsidiaries in Japan
*2 Definition of zero emissions: Landfill disposal volume (direct or after intermediate treatment) of less than 1% of industrial waste discharged by business activities.

### Number of patents registrations

**331**
(patents)

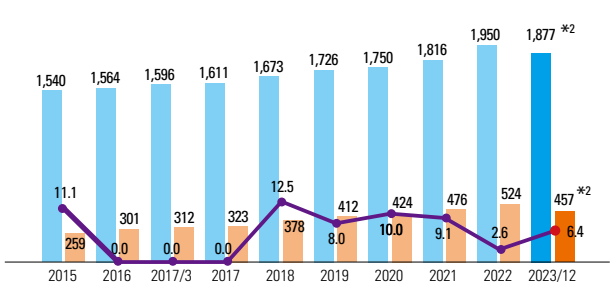



Based on the IP landscape, TOK acquires patents in a strategic manner in the innovative semiconductor segment, new businesses, and new materials. Going forward, TOK will aim for the stable pursuit of business development through new and promising technologies while building barriers to entry by others through patent acquisition for enhanced intellectual capital. TOK will formulate a more effective patent portfolio by selecting open or closed strategies for each case thereby pursuing the enhancement of competitiveness and corporate value **(see pages 12, 58)**.

* Because of the change in the fiscal year-end, results for the fiscal year that ended December 31, 2017, are only for nine months.

### Number of consolidated employees/Number of consolidated foreign employees/Graduate turnover within three years of joining TOK*1

**1,877** **457** **6.4%**

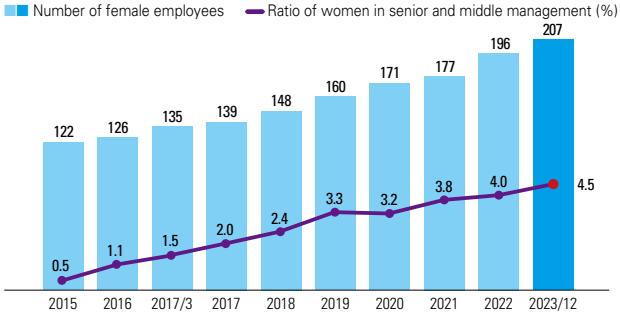



At TOK, the number of foreign employees increased as a result of the expansion of local customer-oriented strategies at overseas sites, an increase in the number of overseas development and production sites, and the emphasis on the merit-based hiring of new graduates (slight reduction in 2023 due to fewer consolidated subsidiaries). Based on a frank and open-minded business culture as part of a management principle, as well as the basic philosophy that human capital is a company asset, TOK expanded the different personnel systems and training programs. As a result, the ratio of new graduate hires who resigned within three years of joining TOK remained at a low rate. In March 2024, TOK was recognized for the 2024 Certified Health and Productivity Management Outstanding Organizations Recognition Program for the sixth consecutive year.

*1 Unconsolidated
*2 The decrease in 2023/12 is due to the restructuring of overseas consolidated subsidiaries.

### Number of female employees*1
### Ratio of women in senior and middle management*2

**207** **4.5%**

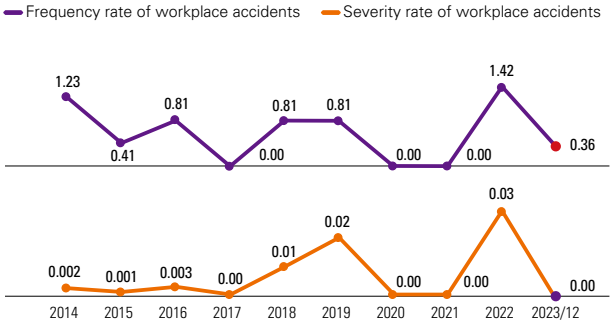



The number of women employees increased as a result of the proactive recruitment of new women graduates, coupled with enhanced support measures to retain women and promote them to senior and middle management. TOK continues to enhance flexible work styles, promote the formation of career plans, provide support for childrearing, and implement other measures. TOK achieved a record-high ratio of women in senior and middle management in FY 2023/12 from the effects of its continued efforts to recruit and retain women as human capital and to promote women to senior and middle management positions. TOK continues to promote the appointment of women as human capital toward the 2030 target (two-fold increase vs. 2020).

*1 Unconsolidated (employees exclude those seconded from other companies to TOK, and include people seconded from TOK to other companies and contract workers)
*2 Unconsolidated (excluding employees who undertake managing jobs but are not in management positions)

### Frequency rate of workplace accidents/ Severity rate of workplace accidents*

**0.36** **0.00**



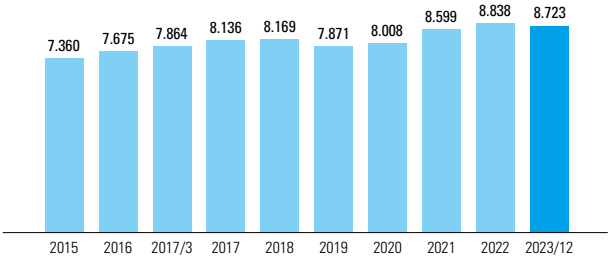

In 2023, while the Koriyama plant obtained RBA-VAP audit gold certification and all domestic sites and Taiwan/Korea sites obtained ISO 45001 certification, the number of workplace accidents increased significantly to 14 (one with lost workdays and 13 without) compared to the past several years. These accidents were mainly due to insufficient risk assessment during non-routine work and violations of safety regulations. TOK is now focused on strengthening safety inspections, further fostering a safety culture, enhancing improvement activities by incorporating internal audits and third-party reviews, and stepping up preventive measures to heighten sensitivity to identify potential risks at each site.

* Unconsolidated

### Average annual salary*

**8.723 million yen**

(Millions of yen)




Over the past 10 years, TOK continued to increase wages by about 2% to 5% annually, and excluding bonus fluctuations due to performance-linked factors, the average annual salary has consistently risen. Going forward, TOK will continue to create sustainable added value and enhance corporate value by actively investing in technologies that build the value chain and human resources as the source of human connections. TOK set *value creation ability* as an indicator to quantitatively measure the degree of implementation and will monitor its progress.

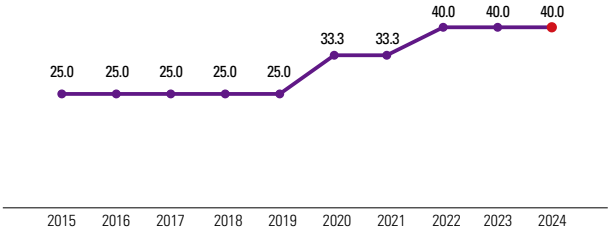
Value creation ability is calculated by dividing added value by personnel expenses. By expanding investment in human capital, which is the denominator, and increasing added value, which is the numerator, TOK will maintain consistently high value creation ability and implement its purpose of *contributing to a sustainable future through chemistry*.

* Unconsolidated

### Ratio of Outside Directors

**40.0%**

(%)




TOK increased the number of outside directors by one each in 2015 and 2020, and one in 2022, to four. Therefore, the ratio of outside directors is now 40.0%. TOK maintains this ratio after its shift to a company with an Audit and Supervisory Committee.

* Based on a resolution adopted at the 93rd general meeting of shareholders that convened on March 30, 2023, TOK shifted to a company with an Audit and Supervisory Committee.

# Trends in Key Data and Analyses

## Changes in Medium-Term Plans and Ten-Year Key Data

**TOK Medium-Term Plan 2015**

**Objectives:**
- Surpass record-high earnings
- Enhance business foundations that support sustainable growth

**Strategies:**
- Build close relationships with regional users
- Reform business portfolios
- Develop global human capital

**TOK Medium-Term Plan 2018**

**Strategies:**
- Reform business portfolios
- Upgrade the customer-oriented strategies
- Develop human capital capable of global operation
- Strengthen management foundation

| Fiscal years ended March 31 until 2017, and the consolidated fiscal accounting years ended December 31 after 2017 | 2015/3 | 2016/3 | 2017/3 | 2017/12*5 |
|---|---|---|---|---|
| **Results of operation:** | | | | |
| Net sales | 88,086 | 89,969 | 88,764 | 92,411 |
| Materials Segment | 84,611 | 87,280 | 86,558 | 90,531 |
| Equipment Segment | 3,475 | 2,689 | 2,205 | 1,880 |
| EBITDA | 17,530 | 18,069 | 16,073 | 15,229 |
| Operating income | 13,253 | 12,438 | 9,954 | 9,194 |
| Income before income taxes | 14,301 | 11,777 | 9,220 | 9,492 |
| Profit attributable to owners of the parent | 8,818 | 7,716 | 6,343 | 6,007 |
| Free cash flow | 3,380 | 7,516 | (925) | 4,169 |
| Investment in plant and equipment | 7,276 | 5,919 | 9,378 | 6,731 |
| Depreciation and amortization | 4,276 | 5,631 | 6,118 | 6,035 |
| R&D cost | 6,903 | 7,015 | 8,207 | 6,921 |
| **Net sales by region:** | | | | |
| Japan | 21,481 | 20,712 | 22,933 | 19,319 |
| Taiwan | 29,928 | 32,509 | 34,331 | 40,469 |
| South Korea | 14,430 | 11,513 | 9,830 | 11,229 |
| The United States | 10,478 | 11,945 | 9,664 | 9,591 |
| China | — | — | — | — |
| Others | 11,767 | 13,288 | 12,004 | 11,801 |
| **Per share data (yen/US dollars):** | | | | |
| Per share basic profit*7 | 65.54 | 59.10 | 48.73 | 46.10 |
| Cash dividends applicable to the year per share | 60.00 | 64.00 | 64.00 | 64.00 |
| Net assets per share*7 | 1,095.27 | 1,099.33 | 1,128.05 | 1,163.66 |
| **Financial condition at year-end:** | | | | |
| Total assets | 174,863 | 167,300 | 174,492 | 178,681 |
| Total noncurrent liabilities | 3,569 | 2,899 | 2,024 | 3,421 |
| Interest-bearing debt | 814 | 534 | 135 | — |
| Net assets | 151,999 | 147,270 | 152,931 | 153,517 |
| **Key performance indicators (%):** | | | | |
| Operating margin | 15.0 | 13.8 | 11.2 | 9.9 |
| ROE | 6.2 | 5.3 | 4.4 | 4.1 |
| Ratio of R&D costs to net sales | 7.8 | 7.8 | 9.2 | 7.5 |
| Equity ratio | 84.3 | 85.1 | 84.6 | 82.2 |
| Debt-to-equity ratio (Times) | 0.00 | 0.00 | 0.00 | 0.00 |
| Payout ratio | 30.5 | 36.1 | 43.8 | 46.3 |
| DOE | 1.9 | 1.9 | 1.9 | 1.9 |
| **ESG-related data:** | | | | |
| Number of employees (consolidated) | 1,540 | 1,564 | 1,596 | 1,611 |
| $CO_2$ emissions (converted from energy consumption) (10,000 t)*6 | 3.0 | 3.0 | 3.0 | 3.0 |
| **Industry trends:** | | | | |
| Worldwide semiconductor market (millions of US dollars)*1 (Year) | 335,168 | 338,931 | 412,221 | 468,778 |
| Worldwide photoresists sales (thousands of US dollars)*2 | 1,230,022 | 1,358,009 | 1,504,224 | 1,504,224 |
| Exchange rate (JPY/USD)*4 | 120 | 112 | 112 | 113 |

*1 Source: World Semiconductor Trade Statistics (WSTS) *2 Source: Calculated by TOK based on data aggregated by SEMI (total sales of ArF and KrF excimer lasers and g- and i-Line photoresists) Because of the change in the fiscal year-end, the same values are indicated for FY 2017/3 and for FY 2017/12.
*3 Forecast-based amount for 2024 *4 As of the end of each fiscal year
*5 Because of the change in the fiscal year-end, the fiscal year that ended December 31, 2017, was an irregular nine-month period in Japan but 12 months overseas.

## TOK Medium-Term Plan 2021

### Long-term vision up to FY 2020/12:

Aim to be a globally trusted corporate group by inspiring customers with high value-added products

### Features:

- Strengthen business portfolio reforms
- Return to a growth trajectory
- Strengthen balance sheet management and introduce a new dividend policy

## TOK Medium-Term Plan 2024

### TOK Vision 2030:

"The e-Material Global Company™" contributes to a sustainable future through chemistry"

### Strategies:

[1] Increase global market shares of cutting-edge photoresists
[2] Acquire and create core technologies for electronic materials and new fields
[3] Secure stable supplies of high-quality products and establish an optimal production system for the Group.
[4] Improve employee engagement and promote people-oriented management
[5] Establish a sound and efficient management foundation

Implement the largest-ever capital investment and R&D investment in preparation for market regrowth from 2024 onwards

| 2018/12 | 2019/12 | 2020/12 | 2021/12 | 2022/12 | Millions of yen 2023/12 | Thousands of US dollars 2023/12 |
|---|---|---|---|---|---|---|
| 105,277 | 102,820 | 117,585 | 140,055 | 175,434 | 162,270 | 1,150,853 |
| 102,621 | 98,986 | 114,773 | 137,725 | 170,329 | 162,270 | 1,150,853 |
| 2,655 | 3,833 | 2,811 | 2,329 | 5,105 | —*8 | — |
| 17,569 | 16,762 | 22,362 | 27,138 | 36,943 | 30,420 | 215,744 |
| 10,505 | 9,546 | 15,589 | 20,707 | 30,181 | 22,706 | 161,041 |
| 9,814 | 8,657 | 15,349 | 25,799 | 30,790 | 21,918 | 155,450 |
| 6,875 | 5,410 | 9,926 | 17,748 | 19,693 | 12,712 | 90,159 |
| 6,298 | (4,542) | 19,472 | 15,182 | 6,608 | 7,831 | 55,544 |
| 5,636 | 14,184 | 5,611 | 8,488 | 14,514 | 15,052 | 106,751 |
| 7,063 | 7,216 | 6,772 | 6,430 | 6,762 | 7,713 | 54,706 |
| 8,526 | 8,879 | 9,545 | 9,800 | 11,038 | 12,658 | 89,773 |
| 24,750 | 24,549 | 24,819 | 29,681 | 31,214 | 28,295 | 200,676 |
| 41,399 | 40,552 | 47,474 | 53,422 | 67,872 | 57,112 | 405,055 |
| 12,286 | 11,659 | 13,747 | 16,529 | 21,864 | 21,989 | 155,950 |
| 10,978 | 9,709 | 10,093 | 11,082 | 14,617 | 14,178 | 100,559 |
| 9,383 | 10,676 | 15,217 | 21,534 | 29,888 | 30,574 | 216,843 |
| 6,478 | 5,672 | 6,232 | 7,803 | 9,978 | 10,119 | 71,767 |
| 54.97 | 43.34 | 79.80 | 143.57 | 163.18 | 105.10 | 0.74 |
| 96.00 | 120.00 | 154.00 | 156.00 | 160.00 | 168.00 | 1.19 |
| 1,153.12 | 1,163.74 | 1,217.06 | 1,293.39 | 1,404.75 | 1,516.99 | 10.75 |
| 182,957 | 186,486 | 201,185 | 217,264 | 238,075 | 251,864 | 1,786,273 |
| 10,723 | 14,437 | 15,997 | 12,416 | 16,333 | 17,756 | 125,932 |
| 10,000 | 11,772 | 11,451 | 11,541 | 11,241 | 11,107 | 78,775 |
| 150,857 | 151,733 | 159,994 | 165,190 | 180,960 | 195,480 | 1,386,384 |
| 10.0 | 9.3 | 13.3 | 14.8 | 17.2 | 14.0 | |
| 4.7 | 3.7 | 6.7 | 11.5 | 12.1 | 7.2 | |
| 8.1 | 8.6 | 8.1 | 7.0 | 6.3 | 7.8 | |
| 78.8 | 77.5 | 75.3 | 71.7 | 71.3 | 72.9 | |
| 0.07 | 0.08 | 0.08 | 0.07 | 0.07 | 0.06 | |
| 58.2 | 92.3 | 64.3 | 36.2 | 32.7 | 53.3 | |
| 2.8 | 3.5 | 4.3 | 4.1 | 4.0 | 3.8 | |
| 1,673 | 1,726 | 1,750 | 1,816 | 1,950 | 1,877 | |
| 2.9 | 3.0 | 3.1 | 2.5 | 1.8 | 1.1 | |
| 412,307 | 440,389 | 555,893 | 574,084 | 526,885 | 611,231*3 | |
| 1,631,851 | 1,679,654 | 2,027,350 | 2,420,373 | 2,589,575 | 2,309,877 | |
| 111 | 109 | 103 | 115 | 132 | 141 | |

Equity ratio:
The equity ratio remained around 85% for a long time; however, TOK is continuing to pursue the optimal balance, which may be decreasing because of stronger balance sheet management.
**(See pages 40–43, "Message from the Executive Officer of Accounting and Finance")**

$CO_2$ emissions:
$CO_2$ emissions have steadily decreased through a variety of reduction measures, including the shift of 100% of purchased electricity at all key domestic sites to renewable energy sources starting in February 2023.
**(See pages 102–103, "Initiatives toward Achieving Carbon Neutrality")**

*6 Unconsolidated basis and consolidated subsidiaries in Japan. Because of the change in the fiscal year-end, the totals for FY 2017/3 also represent the data from January to December. Accordingly, the same values are indicated for FY 2017/3 and for FY 2017/12. *7 TOK conducted a 3-for-1 stock split of common shares on January 1, 2024. Per share basic profit and net assets per share have been calculated assuming that this stock split was conducted at the beginning of FY 2015/3.
*8 Because of the transfer of the equipment business, TOK transitioned to the single segment of materials from FY 2023/12.

# FY 2023/12 Market Trends, Results of Operations, Financial Position, and Next Earnings Forecast

## Business Environment

In the electronics market, which is the main source of demand for products of the TOK Group, during the current period (FY 2023/12), the demand for smartphones and PCs was lower than in the previous fiscal year, and as inventory adjustments by semiconductor manufacturers continued, semiconductor demand was lower than in the preceding year.

The USD/JPY exchange rate, which had been on a yen appreciation trend since October of the previous year, reversed in February because of monetary tightening in the United States and the continuation of easing policies in Japan, and despite a plateau due to verbal intervention by the Bank of Japan, the yen depreciation trend continued until November.

## Net Sales and Operating Income

In the fiscal year ended December 31, 2023, consolidated net sales decreased by 13,164 million yen (7.5%) year-over-year to 162,270 million yen. Net sales in the first half decreased by 7,037 million yen (8.3%) to 77,674 million yen year-over-year. Net sales in the second half decreased by 6,127 million yen (6.8%) to 84,596 million yen year-over-year.

Cost of sales decreased by 7,999 million yen (7.1%) from the previous fiscal year to 104,319 million yen. The cost of sales rose 0.3 percentage points year-over-year to 64.3%. As a result, gross profit decreased by 5,165 million yen (8.2%) to 57,950 million yen.

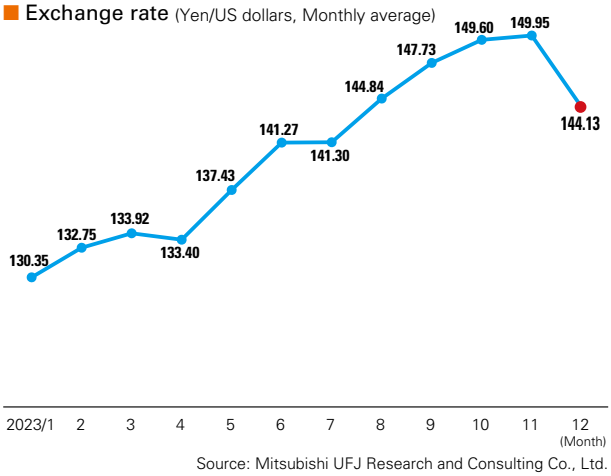
Selling, general, and administrative (SG&A) expenses increased by 2,309 million yen (7.0%) year-over-year to 35,243 million yen.

Operating income decreased by 7,475 million yen (24.8%) year-over-year to 22,706 million yen despite the positive effect of the weaker yen exchange rate because of decreased sales and increased expenses from investments for the future.

## Income before income taxes and profit attributable to owners of the parent

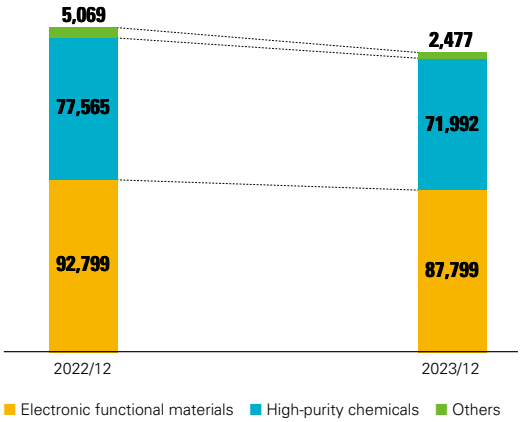
In addition to the loss on the sale of shares of affiliated companies associated with the construction of a global supply chain for high-purity chemicals, TOK recorded business restructuring expenses associated with the transfer of the equipment business, resulting in income before income taxes decreasing by 8,871 million yen (28.8%) year-over-year to 21,918 million yen and profit attributable to owners of parent decreasing by 6,981 million yen (35.4%) year-over-year to 12,712 million yen.

■ Exchange rate (Yen/US dollars, Monthly average)




Source: Mitsubishi UFJ Research and Consulting Co., Ltd.

■ Net Sales by Division Year-Over-Year Comparison (millions of yen)



## Net sales by business and division

Because of the transfer of the Equipment Business (excluding some parts) to Aimechatec Co., Ltd., on March 1, 2023, TOK changed to the single segment of the materials business from FY 2023/12. As a result, TOK does not report business results by business segment but net sales by division as follows.

**Materials business:**

■ Electronic functional materials division

Net sales in this division decreased by 5.4% year-over-year to 87,799 million yen.

■ High-purity chemicals division

Net sales in this division decreased by 7.2% year-over-year to 71,992 million yen.

■ Other

Other net sales decreased by 51.1% year-over-year to 2,477 million yen. Note that net sales from the Equipment Business (excluding some parts) are included in other sales.

## Financial Condition

Total assets at the current year-end (December 31, 2023) increased by 13,789 million yen from the previous year-end to 251,864 million yen.

Total current assets increased by 3,692 million yen from the previous fiscal year-end to 134,328 million yen. This mainly reflected the increase in inventory by 3,076 million yen.

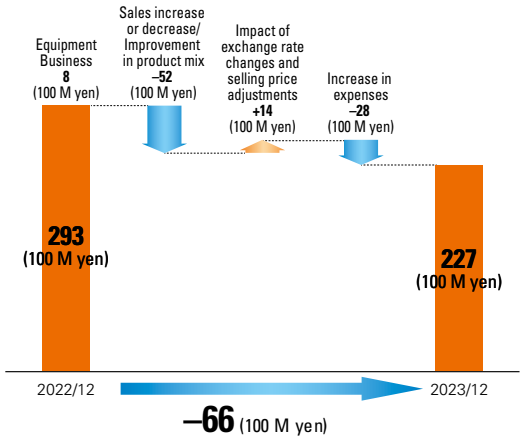
Total noncurrent assets increased by 10,097 million yen from the previous fiscal year-end to 117,536 million yen. This mainly reflected the increase in expenses for the purchase of property, plant, and equipment by 7,224 million yen due to investment in plant and equipment.

Total liabilities at the current year-end decreased by 730 million yen from the previous year-end to 56,384 million yen. This mainly reflected the increase in deferred tax liabilities of 2,620 million yen despite decreases in income taxes payable of 1,916 million yen and trade notes and accounts payable of 1,286 million yen.

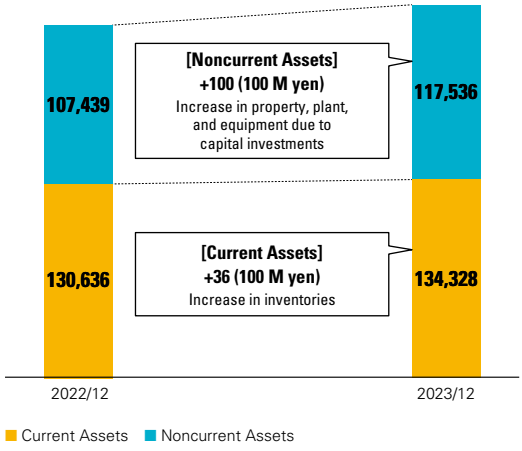
Total equity as of December 31, 2023, increased by 14,520 million yen from the previous fiscal year-end to 195,480 million yen. This mainly reflected the increases in retained earnings of 6,079 million yen and other securities valuation difference of 4,479 million yen.

As a result, the equity ratio stood at 72.9% at the end of the current fiscal year.

■ Breakdown of change in operating income




■ Total Assets Year-over-year Comparison (millions of yen)



## Cash Flows

Net cash provided by operating activities during the current fiscal year decreased by 1,781 million yen year-over-year to 17,210 million yen. This mainly reflected the decreases in income before income taxes and changes in inventories.

Net cash used in investment activities decreased by 3,005 million yen year-over-year to 9,378 million yen. This mainly reflected expenses for the purchase of property, plant, and equipment.

Net cash used in financial activities decreased by 1,234 million yen year-over-year to 7,376 million yen. This mainly reflected dividend payments.

As a result, the balance of cash and cash equivalents increased by 1,931 million yen to 42,788 million yen from the previous year-end.

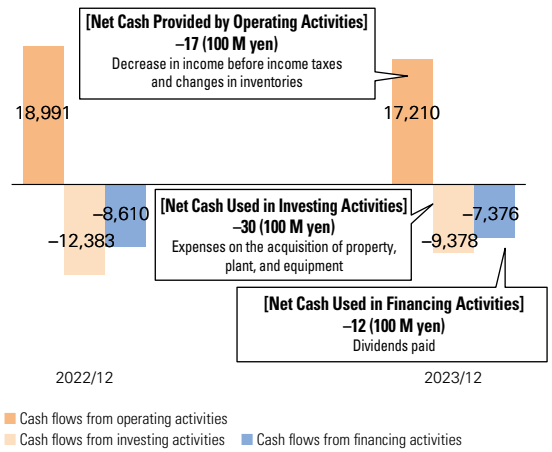
## FY 2024/12 Performance Outlook*

Net sales in FY 2024/12 are estimated to increase by 10.4% compared to FY 2023/12 to 179.2 billion yen in consideration of the status of the adoption of our products and market recovery effects.

Operating income is estimated at 26.8 billion yen with an increase of 18.0% because of the increased sales of high value-added products. The profit attributable to owners of the parent is estimated at 17.6 billion yen with an increase of 38.4% in consideration of the absence of the impact of business restructuring expenses and the increase in operating income.

* Figures announced on February 13, 2024

■ Cash Flows Comparison (millions of yen)




■ Next earnings forecasts*

(millions of yen, %)

| | FY 2023/12 | FY 2024/12 Forecast | | |
|---|---|---|---|---|
| | | | Change | % |
| Net sales | 162,270 | **179,200** | +16,929 | +10.4 |
| Operating income | 22,706 | **26,800** | +4,093 | +18.0 |
| Profit attributable to owners of the parent | 12,712 | **17,600** | +4,887 | +38.4 |
| EBITDA | 30,420 | **35,100** | +4,679 | +15.4 |
| ROE | 7.2% | **9.3%** | +2.1 | — |

* Figures announced on February 13, 2024

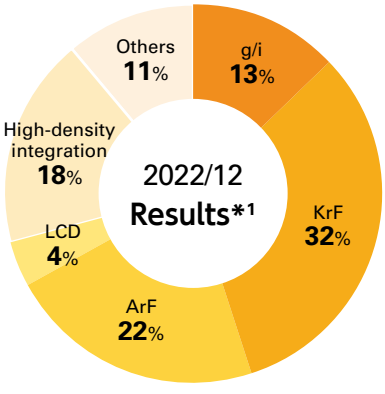
# Reference: Information Related to Electronic Functional Materials and Semiconductor Photoresist

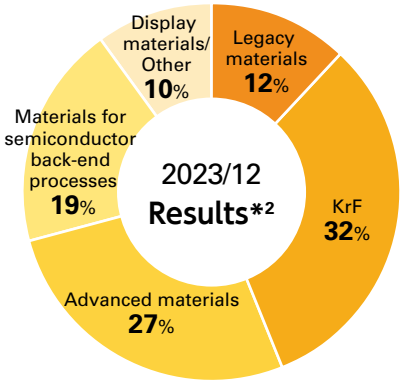
## TOK photoresists are compatible with a variety of line widths along the semiconductor miniaturization spectrum

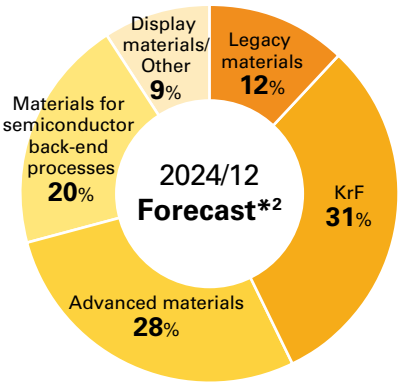
| | i-Line photoresists | KrF excimer laser photoresists | ArF excimer laser photoresists | EUV photoresists |
|---|---|---|---|---|
| |  |  |  |  |
| Light source for lithography | i-Line | KrF (krypton fluoride) excimer lasers | ArF (argon fluoride) excimer lasers | EUV (Extreme Ultraviolet) |
| Wavelength of light source | 365 nm (i-Line) | 248 nm | 193 nm | 13.5 nm |
| | Long | | | Short |
| Semiconductor process nodes* | 350 nm > – ≧ 250 nm | 250 nm > – ≧ 130 nm | 130 nm > – ≧ 10 nm | 10 nm > – |
| | Wide | | | Narrow |
| Main applications and end products | SiC/GaN<br>Next-generation power semiconductors<br>Power semiconductors<br>Sensors<br>LEDs | Smartphones<br>High-performance servers<br>Game consoles | Generative AI<br>Smartphones<br>Wearable devices<br>High-performance servers | Generative AI<br>Cutting-edge smartphones<br>Next-generation servers<br>Next-generation supercomputers<br>Next-generation communications systems |

* Only rounded figures for primary ranges are shown.

## Changes in Sales Composition of Electronic Functional Materials by Type




*1 EUV photoresists are classified under "Other"
High-density integration: packaging materials and MEMS materials
*2 The figures from FY 2023/12 are calculated based on the new segments.
Legacy materials: g-/i-Line and other photoresists
Advanced materials: ArF/EUV and other photoresists
Materials for semiconductor back-end processes: Photoresist for package, MEMS material, WHS-related material, and other materials
LCD materials: classified as display/others

# Consolidated Financial Statements

## Consolidated Balance Sheet

TOKYO OHKA KOGYO CO., LTD., and consolidated subsidiaries
2023 and as of December 31, 2022

| ASSETS | Millions of yen 2023 | 2022 | Thousands of US dollars 2023 |
|---|---|---|---|
| CURRENT ASSETS: | | | |
| Cash and deposits | ¥ 41,788 | ¥ 39,856 | $ 296,371 |
| Time deposits | 15,027 | 15,514 | 106,581 |
| Trade notes receivable | 916 | 911 | 6,498 |
| Accounts receivable | 32,982 | 34,900 | 233,919 |
| Securities | 3,999 | 3,999 | 28,368 |
| Inventories | 33,083 | 30,006 | 234,631 |
| Prepaid expenses and other current assets | 6,604 | 5,535 | 46,840 |
| Allowance for doubtful accounts | (74) | (89) | (528) |
| Total current assets | 134,328 | 130,636 | 952,682 |
| PROPERTY, PLANT, AND EQUIPMENT: | | | |
| Land | 10,687 | 10,570 | 75,800 |
| Buildings and structures | 90,161 | 83,665 | 639,440 |
| Machinery, equipment, and vehicles | 69,382 | 68,318 | 492,073 |
| Tools, furniture, and fixtures | 26,669 | 26,873 | 189,142 |
| Right-of-use assets | 759 | 1,060 | 5,384 |
| Construction in progress accounts | 5,653 | 3,565 | 40,094 |
| Subtotal | 203,313 | 194,054 | 1,441,936 |
| Accumulated depreciation | (130,078) | (128,044) | (922,539) |
| Net property, plant and equipment | 73,235 | 66,010 | 519,397 |
| INVESTMENTS AND OTHER ASSETS: | | | |
| Intangible assets | 1,389 | 1,295 | 9,852 |
| Investment securities | 20,777 | 16,097 | 147,360 |
| Investments in and advances to an unconsolidated subsidiary and associated companies | 1,996 | 7 | 14,158 |
| Investments in capital | 88 | 100 | 629 |
| Assets pertaining to retirement and severance benefits | 4,267 | 3,682 | 30,262 |
| Deferred tax assets | 1,299 | 1,176 | 9,218 |
| Long-term deposit | 12,000 | 18,000 | 85,106 |
| Other assets | 2,482 | 1,069 | 17,605 |
| Total investments and other assets | 44,301 | 41,429 | 314,193 |
| ASSETS TOTAL | ¥251,864 | ¥238,075 | $1,786,273 |

| LIABILITIES AND EQUITY | Millions of yen 2023 | 2022 | Thousands of US dollars 2023 |
|---|---|---|---|
| **CURRENT LIABILITIES:** | | | |
| Trade notes and accounts payable | ¥ 20,331 | ¥ 21,617 | $ 144,192 |
| Short-term loans payable | 486 | — | 3,450 |
| Construction and other arrears | 8,259 | 8,114 | 58,579 |
| Income taxes payable | 1,391 | 3,308 | 9,869 |
| Accrued expenses | 2,314 | 2,720 | 16,414 |
| Allowance for doubtful receivables | 2,733 | 3,322 | 19,385 |
| Other current liabilities | 3,110 | 1,698 | 22,063 |
| Total current liabilities | 38,627 | 40,781 | 273,955 |
| **NON-CURRENT LIABILITIES:** | | | |
| Long-term loans payable | 10,000 | 10,222 | 70,921 |
| Deferred tax liabilities | 3,704 | 1,084 | 26,273 |
| Liabilities pertaining to retirement and severance benefits | 809 | 853 | 5,737 |
| Asset retirement obligation | 81 | 80 | 576 |
| Other noncurrent liabilities | 3,161 | 4,092 | 22,423 |
| Total non-current liabilities | 17,756 | 16,333 | 125,932 |
| **EQUITY:** | | | |
| Common stock<br>—Common shares<br>—Total number of shares authorized: 197,000,000 shares (2023 and 2022)<br>—Total number of shares issued: 42,600,000 shares (2023 and 2022) | 14,640 | 14,640 | 103,832 |
| Capital surplus | 15,315 | 15,303 | 108,623 |
| Retained earnings | 143,630 | 137,551 | 1,018,658 |
| Treasury stock—2,245,134 shares (2023), 2,321,258 shares (2022) | (10,940) | (11,276) | (77,590) |
| Accumulated other comprehensive income | | | |
| Other securities valuation difference | 9,759 | 5,280 | 69,213 |
| Foreign currency translation adjustment | 11,603 | 8,877 | 82,291 |
| Adjustment cumulative total pertaining to retirement and severance benefits | (354) | (630) | (2,514) |
| Subtotal | 183,654 | 169,745 | 1,302,515 |
| Stock acquisition right | 140 | 174 | 997 |
| Non-controlling interest | 11,684 | 11,039 | 82,871 |
| Net assets total | 195,480 | 180,960 | 1,386,384 |
| TOTAL | ¥251,864 | ¥238,075 | $1,786,273 |

* The Company conducted a three-for-one stock split of common shares on January 1, 2024. The above number of shares is stated as the number of shares before the stock split.

# Consolidated Profit and Loss Statement

TOKYO OHKA KOGYO CO., LTD., and consolidated subsidiaries
2023 and consolidated accounting year ended December 31, 2022

| | Millions of yen | | Thousands of US dollars |
|---|---|---|---|
| | 2023 | 2022 | 2023 |
| NET SALES | ¥162,270 | ¥175,434 | $1,150,853 |
| COST OF SALES | 104,319 | 112,319 | 739,855 |
| Gross profit | 57,950 | 63,115 | 410,997 |
| SELLING, GENERAL, AND ADMINISTRATIVE EXPENSES | 35,243 | 32,934 | 249,956 |
| Operating income | 22,706 | 30,181 | 161,041 |
| OTHER INCOMES/EXPENSES: | | | |
| Interest receivable | 353 | 150 | 2,506 |
| Dividend receivable | 599 | 494 | 4,248 |
| Investment income based on equity method | 6 | — | 43 |
| Exchange profit (loss) | 198 | 280 | 1,407 |
| Interest expense | (81) | (73) | (580) |
| Loss on valuation of derivatives | (69) | (326) | (492) |
| Gain on the sale of fixed assets | 220 | 14 | 1,563 |
| Gain on the sale of investment securities | 103 | 243 | 735 |
| Loss on impairment | — | (195) | — |
| Loss on the retirement of fixed assets | (147) | (239) | (1,043) |
| Loss on sale of shares of affiliated companies | (837) | — | (5,937) |
| Loss on business transfer | (1,720) | — | (12,199) |
| Others | 586 | 260 | 4,158 |
| Other incomes/expenses | (788) | 608 | (5,591) |
| INCOME BEFORE INCOME TAXES | 21,918 | 30,790 | 155,450 |
| CORPORATE INCOME TAX, RESIDENT TAX, AND BUSINESS TAX: | | | |
| Current fiscal year | 5,332 | 7,537 | 37,820 |
| Deferred | 532 | 97 | 3,777 |
| Corporate income tax total | 5,865 | 7,634 | 41,597 |
| NET INCOME BEFORE NON-CONTROLLING INTERESTS | 16,053 | 23,155 | 113,852 |
| NON-CONTROLLING INTERESTS IN NET INCOME | 3,340 | 3,461 | 23,692 |
| PROFIT ATTRIBUTABLE TO OWNERS OF THE PARENT | ¥ 12,712 | ¥ 19,693 | $ 90,159 |

| | Yen | | U.S. dollars |
|---|---|---|---|
| PER SHARE OF COMMON STOCK | 2023 | 2022 | 2023 |
| Basic earnings per share | ¥105.10 | ¥163.18 | $0.74 |
| Diluted earnings per share | 104.97 | 162.93 | 0.74 |
| Cash dividends attributable to the year | 168.00 | 160.00 | 1.19 |

# Consolidated Statement of Comprehensive Income

TOKYO OHKA KOGYO CO., LTD., and consolidated subsidiaries
for the fiscal years ended December 31, 2023 and 2022

| | Millions of yen | | Thousands of US dollars |
|---|---|---|---|
| | 2023 | 2022 | 2023 |
| NET INCOME BEFORE NON-CONTROLLING INTERESTS | ¥16,053 | ¥23,155 | $113,852 |
| OTHER COMPREHENSIVE INCOME: | | | |
| Unrealized gain on available-for-sale securities | 4,479 | (1,571) | 31,766 |
| Foreign currency translation adjustment | 3,410 | 3,649 | 24,185 |
| Remeasurements of defined benefit plans | 276 | (1,153) | 1,959 |
| Other comprehensive income total | 8,165 | 923 | 57,911 |
| COMPREHENSIVE INCOME | ¥24,218 | ¥24,079 | $171,764 |
| (Breakdown) | | | |
| Owners of the parent | ¥20,193 | ¥20,226 | $143,219 |
| Non-controlling interests | 4,024 | 3,852 | 28,544 |

# Consolidated Statement of Changes in Equity

TOKYO OHKA KOGYO CO., LTD., and consolidated subsidiaries
2023 and consolidated accounting year ended December 31, 2022

| | Thousand shares | Millions of yen | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Accumulated other comprehensive income (loss) | | | | | | |
| | Number of shares of common stock outstanding | Share capital | Capital surplus | Retained earnings | Treasury stock | Other securities valuation difference | Foreign currency translation adjustment | Remeasurements of defined benefit plans | Subtotal | Subscription rights to shares | Non-controlling interest | Total equity |
| (AS OF JANUARY 1, 2022) | 40,160 | ¥14,640 | ¥15,207 | ¥124,806 | ¥(11,818) | ¥ 6,851 | ¥ 5,618 | ¥ 522 | ¥155,829 | ¥215 | ¥ 9,146 | ¥165,190 |
| Profit attributable to owners of the parent | — | — | — | 19,693 | — | — | — | — | 19,693 | — | — | 19,693 |
| Cash dividends paid | | | | | | | | | | | | |
| Previous fiscal year-end: 94 yen | — | — | — | (3,794) | — | — | — | — | (3,794) | — | — | (3,794) |
| Q2-end: 78 yen | — | — | — | (3,153) | — | — | — | — | (3,153) | — | — | (3,153) |
| Purchase of treasury stock | 0 | — | — | — | (0) | — | — | — | (0) | — | — | (0) |
| Disposal of treasury stock | 118 | — | 95 | — | 542 | — | — | — | 638 | (40) | — | 598 |
| Net change in items other than shareholders' equity during the year | — | — | — | — | — | (1,571) | 3,258 | (1,153) | 533 | — | 1,893 | 2,426 |
| (AS OF DECEMBER 31, 2022) | 40,278 | ¥14,640 | ¥15,303 | ¥137,551 | ¥(11,276) | ¥ 5,280 | ¥ 8,877 | ¥ (630) | ¥169,745 | ¥174 | ¥11,039 | ¥180,960 |
| Profit attributable to owners of the parent | — | — | — | 12,712 | — | — | — | — | 12,712 | — | — | 12,712 |
| Cash dividends paid: | | | | | | | | | | | | |
| Previous fiscal year-end: 82 yen | — | — | — | (3,315) | — | — | — | — | (3,315) | — | — | (3,315) |
| Q2-end: 82 yen | — | — | — | (3,317) | — | — | — | — | (3,317) | — | — | (3,317) |
| Purchase of treasury stock | 0 | — | — | — | (2) | — | — | — | (2) | — | — | (2) |
| Disposal of treasury stock | 76 | — | 12 | — | 338 | — | — | — | 350 | (34) | — | 316 |
| Net change in items other than shareholders' equity during the year | — | — | — | — | — | 4,479 | 2,726 | 276 | 7,481 | — | 645 | 8,126 |
| (AS OF DECEMBER 31, 2023) | 40,354 | ¥14,640 | ¥15,315 | ¥143,630 | ¥(10,940) | ¥ 9,759 | ¥11,603 | ¥ (354) | ¥183,654 | ¥140 | ¥11,684 | ¥195,480 |

* The Company conducted a three-for-one stock split of common shares on January 1, 2024. The above number of shares and dividend per share are stated as the number of shares and amount before the stock split, respectively.

| | Thousands of US dollars | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Accumulated other comprehensive income (loss) | | | | | |
| | Common stock | Capital surplus | Retained earnings | Treasury stock | Unrealized gain on available for-sale securities | Foreign currency translation adjustment | Remeasurements of defined benefit plans | Subtotal | Subscription rights to shares | Non-controlling interest | Total equity |
| (AS OF DECEMBER 31, 2022) | $103,832 | $108,536 | $ 975,542 | $(79,972) | $37,447 | $62,957 | $(4,474) | $1,203,870 | $1,240 | $78,295 | $1,283,405 |
| Profit attributable to owners of the parent | — | — | 90,159 | — | — | — | — | 90,159 | — | — | 90,159 |
| Cash dividends paid: | | | | | | | | | | | |
| Previous year-end: USD 0.58 | — | — | (23,514) | — | — | — | — | (23,514) | — | — | (23,514) |
| Q2-end: USD 0.58 | — | — | (23,529) | — | — | — | — | (23,529) | — | — | (23,529) |
| Purchase of treasury stock | — | — | — | (19) | — | — | — | (19) | — | — | (19) |
| Disposal of treasury stock | — | 87 | — | 2,401 | — | — | — | 2,488 | (242) | — | 2,246 |
| Net change in items other than shareholders' equity during the year | — | — | — | — | 31,766 | 19,333 | 1,959 | 53,059 | — | 4,576 | 57,636 |
| (AS OF DECEMBER 31, 2023) | $103,832 | $108,623 | $1,018,658 | $(77,590) | $69,213 | $82,291 | $(2,514) | $1,302,515 | $ 997 | $82,871 | $1,386,384 |

**Positioning of *Integrated Report* (Japanese version)**
The *Integrated Report* (Japanese version) is prepared and is consistent with the English version. The Consolidated Financial Statements in the Japanese version are translated into Japanese from the Financial Statements (English version). For more details of the Consolidated Financial Statements and the financial remarks, see the separate PDF file on our website. **https://www.tok.co.jp/ir/library/annual**

# Consolidated Statement of Cash Flows

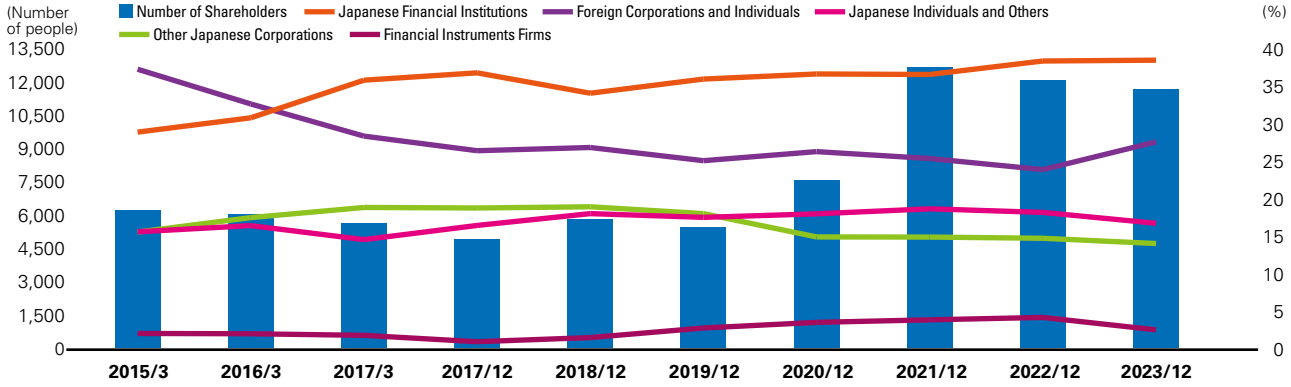
TOKYO OHKA KOGYO CO., LTD., and consolidated subsidiaries
2023 and consolidated accounting year ended December 31, 2022

| | Millions of yen | | Thousands of US dollars |
|---|---|---|---|
| | 2023 | 2022 | 2023 |
| CASH FLOWS FROM OPERATING ACTIVITIES: | | | |
| Income before income taxes | ¥ 21,918 | ¥ 30,790 | $ 155,450 |
| Adjustments for: | | | |
| Depreciation and amortization | 7,713 | 6,762 | 54,706 |
| Impairment loss on long-lived assets | — | 195 | — |
| Decrease in allowance for doubtful receivables | (10) | (31) | (77) |
| Increase (decrease) in provision for bonuses | (557) | 593 | (3,955) |
| Decrease in provision for officer bonuses | (18) | (401) | (134) |
| Increase in assets pertaining to retirement and severance benefits | (170) | (371) | (1,208) |
| Decrease in liabilities pertaining to retirement and severance benefits | (74) | (77) | (525) |
| Interest receivable and dividend receivable | (952) | (644) | (6,755) |
| Interest expenses | 81 | 73 | 580 |
| Foreign exchange gain—net | (725) | (1,066) | (5,145) |
| Loss on valuation of derivatives | 69 | 326 | 492 |
| Investment income based on equity method | (6) | — | (43) |
| Gain on the sale of fixed assets | (218) | (14) | (1,552) |
| Loss on the retirement of fixed assets | 147 | 239 | 1,043 |
| Gain on the sale of investment securities | (103) | (243) | (735) |
| Loss on sale of shares of affiliated companies | 837 | — | 5,937 |
| Loss on business transfer | 1,720 | — | 12,199 |
| Increase in trade receivables | (262) | (858) | (1,862) |
| Increase in inventories | (4,887) | (7,510) | (34,663) |
| Increase in trade notes and accounts payable | 140 | 1,870 | 997 |
| Increase in advance received | 752 | 66 | 5,336 |
| Interest and dividend receivables | 951 | 646 | 6,747 |
| Interest paid | (81) | (73) | (580) |
| Corporate income tax paid | (7,558) | (8,557) | (53,605) |
| Others | (1,493) | (2,721) | (10,589) |
| Cash flows from operating activities | 17,210 | 18,991 | 122,057 |
| CASH FLOWS FROM INVESTING ACTIVITIES: | | | |
| Expenses on the acquisition of securities | (12,000) | (12,000) | (85,106) |
| Income on the redemption of securities | 12,000 | 12,000 | 85,106 |
| Expenses on the acquisition of property, plant, and equipment | (14,712) | (10,698) | (104,346) |
| Income on the sale of property, plant, and equipment | 238 | 10 | 1,694 |
| Expenses on the acquisition of intangible assets | (516) | (752) | (3,666) |
| Expenses on the acquisition of investment securities | (372) | (2,082) | (2,641) |
| Income on the sale of investment securities | 133 | 371 | 948 |
| Net decrease in fixed-term deposits | 595 | 982 | 4,221 |
| Expenses on the deposit of long-term deposits | (6,000) | (14,000) | (42,553) |
| Income on the refund of long-term deposits | 12,000 | 14,000 | 85,106 |
| Income on business transfer | 682 | — | 4,838 |
| Expenses on sale of shares of subsidiaries resulting in change in scope of consolidation | (2,012) | — | (14,271) |
| Others | 586 | (214) | 4,156 |
| Cash flows from investing activities | (9,378) | (12,383) | (66,513) |
| CASH FLOWS FROM FINANCING ACTIVITIES: | | | |
| Income on short-term loans payable | 482 | — | 3,421 |
| Income on long-term loans payable | — | 3,900 | — |
| Expenses on the payment of long-term loans payable | (222) | (4,289) | (1,576) |
| Income on the issuance of shares | — | 184 | — |
| Income on the sale of treasury stock | 316 | 769 | 2,246 |
| Expenses on the acquisition of treasury stock | (2) | (0) | (19) |
| Dividend paid | (6,628) | (6,941) | (47,009) |
| Dividend paid to non-controlling shareholders | (1,163) | (2,160) | (8,248) |
| Others | (159) | (71) | (1,128) |
| Cash flows from financing activities | ¥ (7,376) | ¥ (8,610) | $ (52,312) |
| CONVERSION DIFFERENCE PERTAINING TO CASH AND CASH EQUIVALENTS | 1,475 | 1,389 | 10,467 |
| DECREASE IN CASH AND CASH EQUIVALENTS | 1,931 | (612) | 13,699 |
| INITIAL BALANCE OF CASH AND CASH EQUIVALENTS | 40,856 | 41,469 | 289,763 |
| YEAR-END BALANCE OF CASH AND CASH EQUIVALENTS | ¥ 42,788 | ¥ 40,856 | $ 303,463 |

# Stock Information

## Ten-year Trends of Shareholder Composition

### Changes in the number and composition (shareholding ratio) of shareholders




(Note) Treasury stock is included in "Japanese Individuals and Others."

## Major Shareholders (Top 10)

(As of December 31, 2023)

| Shareholder | Numbers of shares held (Thousand shares) | Ratio of shareholding (%) |
|---|---|---|
| The Master Trust Bank of Japan, Ltd. (Trust Account) | 5,656 | 13.98 |
| Custody Bank of Japan, Ltd. (Trust Account) | 2,717 | 6.72 |
| Meiji Yasuda Life Insurance Company | 1,826 | 4.51 |
| BNYM AS AGT/CLTS NON TREATY JASDEC | 1,528 | 3.78 |
| MUFG Bank, Ltd. | 1,207 | 2.98 |
| The Bank of Yokohama, Ltd. | 1,026 | 2.54 |
| Tokyo Ohka Foundation for the Promotion of Science and Technology | 984 | 2.43 |
| Mitsubishi UFJ Trust and Banking Corporation | 953 | 2.36 |
| Mitsubishi UFJ Capital Co., Ltd. | 860 | 2.13 |
| Tokio Marine & Nichido Fire Insurance Co., Ltd. | 857 | 2.12 |

Notes: (1) The Company owns 2,140,000 shares of treasury stock, which are excluded from the above major shareholders.
(2) The ratio of shareholding is calculated from the number of shares (40,459,866 shares) obtained by subtracting the number of shares of treasury stock from the total number of shares issued.

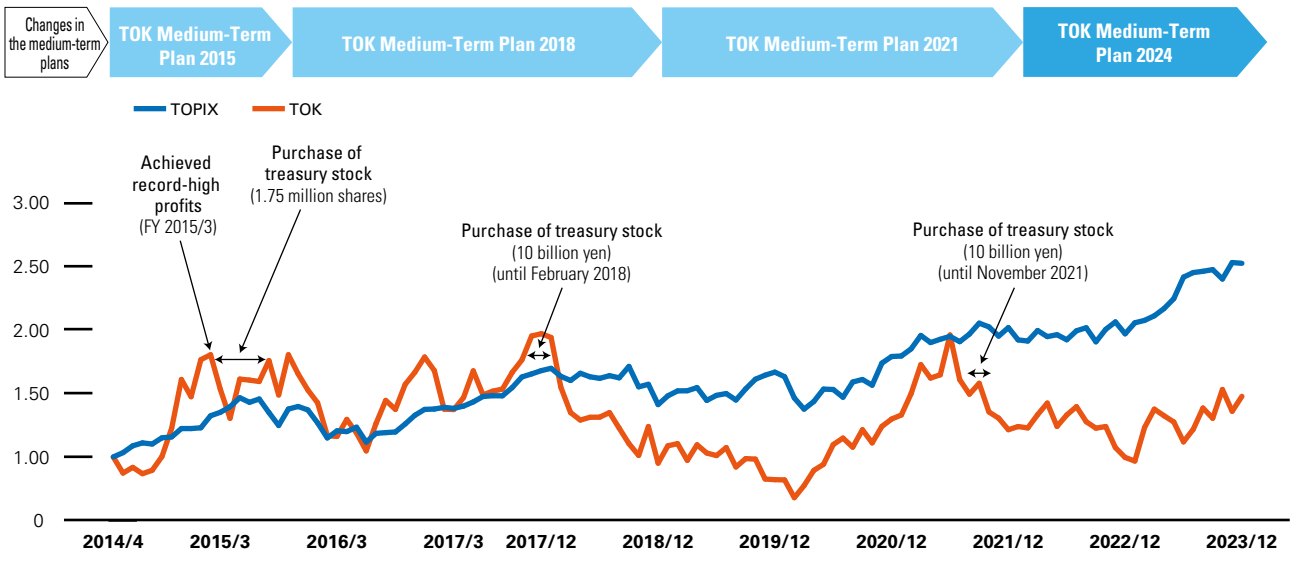
## Basic Stock Information

| | |
|---|---|
| Stock listing | Prime Market, Tokyo Stock Exchange, Inc. |
| Category of industry | Chemicals |
| Securities code | 4186 |
| Share unit number | 100 |
| Accounting period | January 1 to December 31*1 |
| Dividend record date (Year-end) | December 31 |
| Dividend record date (Interim) | June 30 |
| Total number of shares authorized | 197,000,000 shares (As of December 31, 2023)*2 |
| Number of shares issued | 42,600,000 shares (As of December 31, 2023)*2 |

*1 The Company changed its fiscal year-end from March 31 to December 31 effective as of fiscal year 2017.
*2 The Company conducted a 3-for-1 stock split of common shares on January 1, 2024. The above number of shares is stated as the number of shares before the stock split.

## Ten-year Trends of TOK TSR

Relative comparison with April 2013 being 1 (monthly, closing price basis)



# Global Network




## Tokyo Ohka Kogyo Co., Ltd.

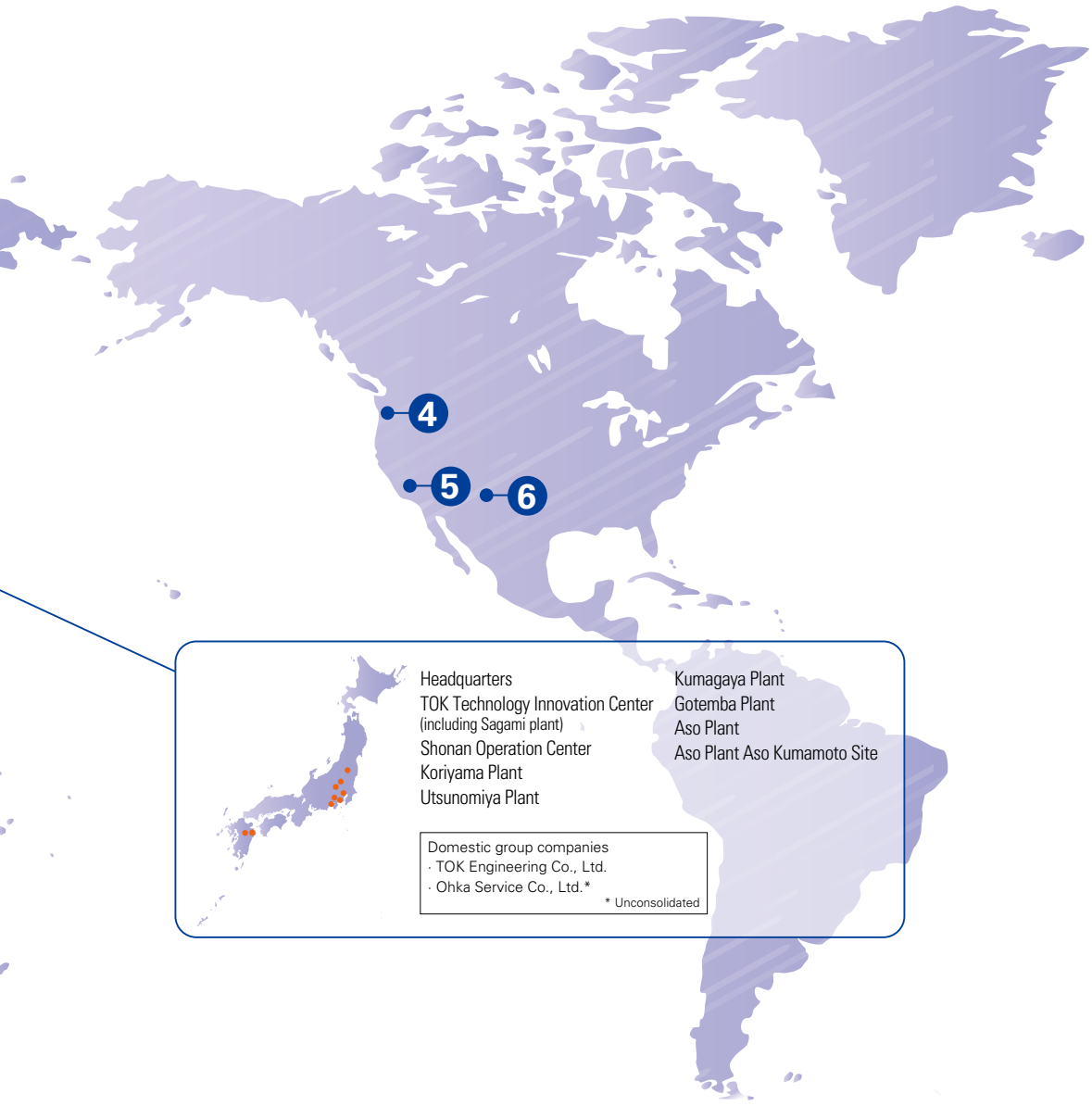
1. Headquarters
   - TOK Technology Innovation Center (including Sagami plant)
   - Shonan Operation Center
   - Koriyama Plant
   - Utsunomiya Plant
   - Kumagaya Plant
   - Gotemba Plant
   - Aso Plant
   - Aso Plant Aso Kumamoto Site
2. Singapore Office
3. Europe Branch

## (Tokyo Ohka Kogyo America, Inc.)

Established: April 1989

Business: Manufacture and sales of photoresists, and the development, manufacture, and sales of photoresist-related chemicals

4. Headquarters/Oregon Plant (Oregon)
5. Sales Office (California)
6. TOKCCAZ, LLC. (Arizona)




## (Tok Taiwan Co., Ltd.)

Established: January 1998

Business: Manufacture and sales of photoresists, and the development, manufacture, and sales of photoresist-related chemicals

**7** Headquarters (Hsinchu City)
Tongluo Plant (Miaoli County)

## (TOK Advanced Materials Co., Ltd.)

Established: August 2012

Business: Development, manufacture, and sales of photoresists and related chemicals

**8** Headquarters / Incheon Plant (South Korea)

## (TOK China Co., Ltd.)

Established: January 2021

Business: Marketing of photoresists for semiconductor and display production and of related high-purity chemicals in China

**9** Headquarters (China)

# Corporate Information/External Evaluation

## Corporate Information

(As of December 31, 2023)



Headquarters

| | |
|---|---|
| Corporate Name | Tokyo Ohka Kogyo Co., Ltd. |
| Established | October 25, 1940 |
| Headquarters | 150 Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012 JAPAN |
| Number of Employees | 1,877 (Consolidated) |
| Paid-in capital | 14,640,448,000 yen |
| Website | https://www.tok.co.jp/eng |
| Stock listing | TSE Prime Market |
| Investor Relations Contact for this report | Public Relations Section, Corporate Communication Department<br>150 Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012 JAPAN<br>TEL. 044-435-3000 FAX. 044-435-3020 |

## External Evaluation

### Selected or recognized for indices

- Sompo Sustainability Index (Constituent stock in fiscal 2024, selected for 13 consecutive years)
- FTSE Blossom Japan Sector Relative Index (2022 to 2024)
- S&P/JPX Carbon Efficient Index (As of June 19, 2023)
- JPX Nikkei Index 400 (2023)
- Certified Health & Productivity Management Outstanding Organizations Recognition Program 2024 (2018 to 2020, 2022 to 2024)
- MSCI ESG Rating (2018 to 2023)
  Tokyo Ohka Kogyo Co., Ltd., was rated A in the MSCI ESG rating.
- MSCI Japan ESG Select Leaders Index (2024)
- MSCI Japan ESG Select Leaders Index (Selected for five consecutive years in FY 2024)

(Note) The inclusion of Tokyo Ohka Kogyo Co., Ltd., in any MSCI index and the use of MSCI logos, trademarks, service marks, or index names herein do not constitute a sponsorship, endorsement, or promotion of Tokyo Ohka Kogyo Co., Ltd., by MSCI or any of its affiliates. The MSCI indexes are the exclusive property of MSCI. MSCI and the MSCI index names and logos are trademarks or service marks of MSCI or its affiliates.

- SX Brands 2024 (2024)

### Evaluations and commendations for various activities

- Intel Corporation
  Preferred Quality Supplier Award (2016, 2018, 2020, 2021)
  EPIC Distinguished Supplier Award (2022)



- Micron Technology
  "Micron Supplier Award" (2022)




- Texas Instruments Inc.
  Supplier Excellence Award (2018 and 2022)
- Global Niche Top Companies Selection 100 (Ministry of Economy, Trade and Industry) (2014 and 2020)
- Nikkei Integrated Report Award
  Grand Prize (third session, 2023)
  Semi-Grand Prize (second session, 2022)

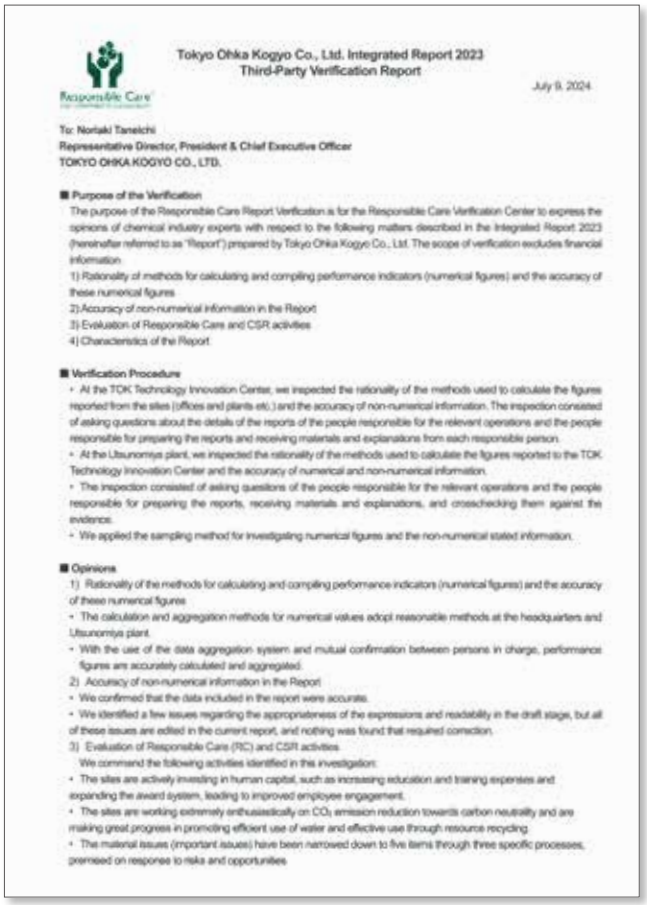


- Nikkei Annual Report Award
  Special Prize (22nd session, 2020)
  Excellence Prize (23rd session, 2021; 20th session, 2018; and 18th session, 2016)



- WICI Japan Integrated Report Award
  Bronze Award (2020, 2021, and 2023)
- Excellent Integrated Report and Report with Substantial Improvement (2020 and 2021)
  Selected by the contract operator of the domestic stocks of Government Pension Investment Fund (GPIF)

# Third-Party Verification Report



Tokyo Ohka Kogyo Co., Ltd. Integrated Report 2023
Third-Party Verification Report

July 9, 2024

To: Noriaki Taneichi
Representative Director, President & Chief Executive Officer
TOKYO OHKA KOGYO CO., LTD.

■ Purpose of the Verification

The purpose of the Responsible Care Report Verification is for the Responsible Care Verification Center to express the opinions of chemical industry experts with respect to the following matters described in the Integrated Report 2023 (hereinafter referred to as "Report") prepared by Tokyo Ohka Kogyo Co., Ltd. The scope of verification excludes financial information.

1) Rationality of methods for calculating and compiling performance indicators (numerical figures) and the accuracy of these numerical figures
2) Accuracy of non-numerical information in the Report
3) Evaluation of Responsible Care and CSR activities
4) Characteristics of the Report

■ Verification Procedure

- At the TOK Technology Innovation Center, we inspected the rationality of the methods used to calculate the figures reported from the sites (offices and plants etc.) and the accuracy of non-numerical information. The inspection consisted of asking questions about the details of the reports of the people responsible for the relevant operations and the people responsible for preparing the reports and receiving materials and explanations from each responsible person.
- At the Utsunomiya plant, we inspected the rationality of the methods used to calculate the figures reported to the TOK Technology Innovation Center and the accuracy of numerical and non-numerical information.
- The inspection consisted of asking questions of the people responsible for the relevant operations and the people responsible for preparing the reports, receiving materials and explanations, and crosschecking them against the evidence.
- We applied the sampling method for investigating numerical figures and the non-numerical stated information.

■ Opinions

1) Rationality of the methods for calculating and compiling performance indicators (numerical figures) and the accuracy of these numerical figures
- The calculation and aggregation methods for numerical values adopt reasonable methods at the headquarters and Utsunomiya plant.
- With the use of the data aggregation system and mutual confirmation between persons in charge, performance figures are accurately calculated and aggregated.

2) Accuracy of non-numerical information in the Report
- We confirmed that the data included in the report were accurate.
- We identified a few issues regarding the appropriateness of the expressions and readability in the draft stage, but all of these issues are edited in the current report, and nothing was found that required correction.

3) Evaluation of Responsible Care (RC) and CSR activities
We commend the following activities identified in this investigation:
- The sites are actively investing in human capital, such as increasing education and training expenses and expanding the award system, leading to improved employee engagement.
- The sites are working extremely enthusiastically on $CO_2$ emission reduction towards carbon neutrality and are making great progress in promoting efficient use of water and effective use through resource recycling.
- The material issues (important issues) have been narrowed down to five items through three specific processes, premised on response to risks and opportunities.
- By continuing occupational accidents prevention activities steadily over a long period, the Utsunomiya plant maintains a high level of safety, and this is the result of the concerted efforts of everyone working in the plant.

4) About the characteristics of the report
- Accelerating investment in human capital and intellectual capital, contributing to the creation of further social impact, is very informative for readers as an indication of the direction Tokyo Ohka Kogyo Co., Ltd. should take. (Pages 16, 17)
- The numerical tables on DE&I initiatives and indicators related to the participation of female employees, wage differences between men and women are useful reference for readers. (Pages 64, 65)

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