Main Material Issue Initiatives in the Value Chain

**Value Creation by the Value Chain** 

3

# **Initiatives in the Value Chain**

Leveraging our unique characteristics, we have built a superior business model and continually create new value by the value chain of our business activities anchored around material issues.









**Quality Management** 

Responsiveness P. 43 >

Globalize Field Engineers and Strengthen Customer

Promotion of High-value-added Services P.44

Sustainability Initiatives in the Value Chain P.45-78

# **Initiatives in the Value Chain**



Ascertaining trends in the market and technologies as well as customer needs early on, we will efficiently promote Research and Development (R&D) covering fundamental technologies to mass-produced products through the utilization of in-house and outside knowledge and global collaboration. We will develop unique technologies with an eye towards the future and create high-value-added next-generation products that contribute to technological innovation in semiconductors.

#### **Key Themes for Medium- to Long-term Value Creation**

Timely development of high-value-added technologies and products through promotion of Shift Left

Further pursuing development efficiency and strengthening human resource development

Development of new products and functions with highest performance through the organic integration of specialized expertise in various fields

Intellectual capital

R&D investment Over five years, beginning in fiscal 2025

Intellectual capital

Human capital

**Human resources** possessing knowledge in a variety of specialized fields related to semiconductor

production equipment

#### **Differentiation Points**

### **Strategic Research and Development**

Global marketing

Management

Resources to Be

Invested

- Ascertaining technological trends and customer needs early on through service support activities to reflect them in product planning and development
- Formulating and implementing short-term as well as medium- to long-term development strategies that are associated with the existing businesses

### **Development Efficiency**

• Pursuit of development efficiency and creation of new values by digital technology utilizing AI through promoting digital transformation (DX)

#### **Collaboration System**

- Close partnerships among our development sites in Japan and overseas, business divisions and Corporate Innovation Division
- R&D with customers with an eye toward several generations in the future
- Diverse collaborations with consortiums, academia and suppliers

#### **Intellectual Property**

 Globally No. 1 number of patents owned in the semiconductor production equipment industry and development of intellectual property management

#### **Value Created**

Innovative, high-value-added unique technologies that contribute to leading-edge semiconductor production

**Equipment highly advantageous** such as in higher throughput, a higher utilization rate and smaller space requirements

**Environmental performance** contributing to the achievement of net zero

**Related Main Risks** 

Risk Management P. 75-76

Risk 2

Research and Development

Risk 9

Intellectual Property Rights

Risk 11

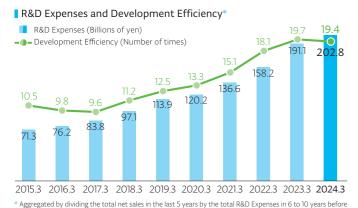
**Human Resources** 

# Main Material Issue Initiatives in Research and Development



#### Strengthening Research and Development Capabilities

To continuously create the high-value-added next-generation products needed for technological innovation in semiconductors and bring them to the market in a timely manner, domestic and overseas development sites, our business divisions and the Corporate Innovation Division take advantage of their respective individuality and collaborate in necessary areas for us to promote technological development and integration. We construct development systems ranging from fundamental technologies to mass-produced products and promote DX that uses AI



will spend more than 1.5 trillion yen for R&D expenses to continue and accelerate these activities. In addition, by monitoring the contribution of the R&D expenses and their deliverables to net sales, we will check our development efficiency using R&D expenses in the past five years and net sales in the next five years to implement activities to further increase our development

technologies in our R&D. In five years starting from fiscal 2025, we

Each development site and business divisions have an eve toward future generations and are engaged in the development of innovative technologies. They also promote R&D related to peripheral technologies. The Corporate Innovation Division is developing cross-functional initiatives in each product area as well as promoting and optimizing R&D with a bird's eye view on the entire development structure. In addition, the division is also engaged in a search for potential growth areas, as well as in R&D of fundamental technologies toward creating value in the future.

For excellent deliverables of research and development in each site of our Group, awards from Global Awarding System as well as Excellence awards of our internal technology conference, Sustainable Technology Award and DX Award are granted to enhance engineers' motivation to create products.

#### Collaboration with Consortiums and Academia

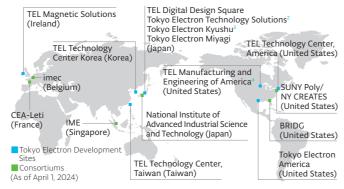
For many years, we have been focusing on joint research and development efforts with domestic and international consortiums and academia (universities). These initiatives help develop the development infrastructure to maximize the benefits of openinnovation-based development in each region. In recent years, we are also making efforts to boost human resource development in the semiconductor industry through collaboration with major universities in Japan and abroad.

We continue our development in various areas from applications to products through efforts such as R&D underway for the front-end and back-end areas at TEL Technology Center, America, participation in a global research hub for hardware development of next-generation AI, leading-edge logic development and quantum computing development, collaboration with imec in the logic process development and for patterning technology in EUV and high-NA EUV ranges, and collaboration with BRIDG, a not-for-profit, public-private partnership. In the semiconductor industry, in which the speed of technological innovation is rapid, developing new technologies in advance is a source of corporate growth. We will not only develop leading-edge exposure technology but contribute to the creation of innovation with new structures/new materials such as CFET and TMDC<sup>1</sup> by extracting and identifying technology change points by conducting

market research with an eye towards ten years ahead.

In our collaboration with the National Institute of Advanced Industrial Science and Technology (AIST), one of Japan's largest public research institutions, we leverage its world-class research environment and personnel to enhance our own research and development capabilities by conducting development of leading-edge fundamental technologies required for diversified semiconductor device production and research in TMDC and 2D materials.

1 TMDC: Transition Metal Di-Chalcogenide, a material used for 2D transistors such as WS2, MoSe2.



- 2 Fujiji Head Office Hosaka Office Tohoku Office
- 3 Koshi Head Office Ozu Office
- 4 Chaska Head Office Chelmsford Office

#### Marketing

Based on the roadmaps of device technology and customer products as well as competitive analysis, marketing departments of business divisions, accounts and the corporate organization play respective roles appropriately and collaborate with each other to realize medium-term and long-term management

Marketing departments of Business Units (BUs) in Business Divisions conduct planning of advanced next-generation products and promotion activities based on it to satisfy the needs of customers in the target market segments of respective BUs. On the other hand, marketing departments of account and corporate organizations conduct planning of integration that

combines next-generation products of business divisions across BUs and planning of advanced new products not included in the product portfolio of business divisions to solve future High Value Problems (HVPs) of the customers. In addition, they propose solutions based on the above planning.

In the semiconductor industry, where business environment changes drastically, companies need the flexibility to change policies in a timely manner as circumstances require. Our marketing departments work together in performing their activities that anticipate market needs and contribute to customers' products as well as help improve our product competitiveness and promote our Shift Left approach.







# New Technologies Development

We are developing new technologies and new products by utilizing and organically integrating our expertise in various fields. As an example, we have developed an innovative etch technology capable of producing memory channel holes in advanced 3D NAND devices with a stack of over 400 layers. The new process developed has brought dielectric etch application to the cryogenic temperature range for the first time, producing a system with exceptionally high etch rates. With this new innovative technology, etching of 10 μm in depth with a high aspect ratio<sup>2</sup> can be formed to be quite well-defined (Figure 2) in a short period of 33 minutes, allowing global warming potential to be reduced by 84% compared with previous technologies. Potential innovations

enabled by this technology will spur the creation of 3D NAND flash memory with even larger capacity

- 1 Memory channel holes: Holes working as memory elements
- 2 Aspect ratio: Depth to width ratio of the pattern formed on the wafer

Figure 1. 3D NAND Figure 2. Image of Hole Pattern (left) and Hole Bottom Cut (right) Amorphous carbon film Memory channel holes formed at the laminated film Copyright 2023

#### Process Development with Al Using Machine Learning

We have been quick to introduce a generative AI system that is available across the Company, as AI has been more and more put to practical use in society. In addition, we are developing generative AI specialized in software for semiconductor production equipment to accelerate product development.

In the development for semiconductor manufacturing process, we use images taken by Scanning Electron Microscope (SEM) and measure the sizes of various microscopic structures such as linewidth and hole diameter to check process results on wafers to determine whether required results are obtained.

For this task, we have developed and used a tool applying machine learning so far, but preparation for measuring new shapes has taken long hours. In fiscal 2024, we developed

a new image length measuring tool that can measure any shape quickly and easily. With this new tool, preparation for measurement is no longer required and engineers involved in the process development can measure shapes on wafers by a simple operation, increasing productivity in process development.

How the Automatic Length Measuring Tool Is Used



2 Area is automatically

3 Sizes are automaticall

### **Initiatives in the Value Chain**

# **Procurement and** Manufacturing



We constantly pursue production innovation based on the themes of safety, high quality and superior reliability, and put together manufacturing operations that are environmentally friendly. We conduct standardization and leveling production so that we can respond swiftly to market fluctuations and are further improving our efficiency through the implementation of Smart Manufacturing. We establish stable production capabilities by building a sustainable supply chain through partnership with our suppliers.

#### **Key Themes for Medium- to Long-term Value Creation**

World-class manufacturing operations through the realization of Smart Manufacturing concepts

Pursuit of efficiency and optimal management resource allocation linked to further improvements in operating margin and ROE

Co-creation of value through solid relationships of trust with suppliers

Manufactured capital/Human capital

#### Many years of know-how (people and products) systems

in semiconductor production equipment business

Management

Resources to Be

Invested

Manufacturing core

that make full use of the latest digital technologies

Manufactured capital

with suppliers

relationships

Social and relationship capital

Strong cooperative working



#### **Differentiation Points**

### **Quality and Reliability**

- Thorough quality focused operations based on the **Quality Policy**
- Utilizing our manufacturing know-how and knowledge, and carrying out thorough quality management in each process

#### **Sustainable Procurement Activities**

- Creation of new value through collaboration with
- Pursue efficiency through ONE TEL\* operations
- Sustainability initiatives including occupational safety and health
- Refers to the Group coming together as a whole to attain the same goals

#### **Pursuit for Efficient Productivity**

- Shift Left practices for operational efficiency
- Advancement of standardization and leveling production
- Implementation of Smart Manufacturing

#### **Initiatives to Achieve Net Zero**

- Activities to reduce environmental impact in plants and offices as well as logistics
- Partnerships across the entire supply chain
- Reduction of CO<sub>2</sub> emissions during use of our products

#### **Value Created**

High-quality and superior-reliability products

incorporating leading-edge technologies

**Shortening of** production lead times

through stable and efficient manufacturing operations

**Contributions to the global** environment preservation

**Related Main Risks** Risk Management P. 75-76 Risk 4 Risk 5 Procurement, Production Quality Safety **Environmental Issues** and Supply

# Main Material Issue Initiatives in Procurement and Manufacturing







#### Sustainable Procurement Strategies

In the semiconductor production equipment business, supply chain management is becoming increasingly important. To conduct business activities effectively and reliably, it is extremely important to strategically carry out sustainable procurement activities.

The Corporate Production Division conducts periodic supply chain BCP assessments, investigations into risk components and systemization of supplier maps to make supply chain risks visible. Furthermore, as part of proactive procurement activities, we are engaged in strengthening supplementary parts systems between manufacturing sites and examining procurement processes as

well as optimizing procurement and parts inventories throughout the entire Group.

In addition, we are working to adjust sales plans with production, procurement and inventory plans by sharing not only short-term, but also medium-term order forecasts between sales and manufacturing divisions, as well as working to ensure stable procurement and both production and start-up process leveling.

Through these efforts, we are seeking to further improve safety, quality and efficiency of equipment production and





#### Communication with Our Suppliers

Based on the belief that smooth communication with suppliers is important, we hold production update briefings, TEL Partners' Day and other events on a regular basis to create opportunities to share market trends, our management policy, business policies and sustainability initiatives with our suppliers. We hold briefing sessions for our suppliers to deepen their understanding of RBA Code of Conduct compliance, our E-COMPASS initiative, etc. We affirm the intent of the "Council on Promoting Partnership Building for Cultivating the Future" pursued by the Cabinet Office,

the Ministry of Economy, Trade and Industry and the Small and Medium Enterprise Agency. We also announced the "Declaration of Partnership Building" to declare that we will work to build mutually beneficial relationships and new cooperation beyond scale and industrial groupings of the entire supply chain and to adhere to a desirable practice for trades with suppliers. We will continue to strive to improve added values in the supply chain by conducting global operations in cooperation with our suppliers.







# World-class Manufacturing Operations

# Production Innovation through Smart Manufacturing

We constantly strive to innovate in production and improve product quality and profitability at manufacturing sites and engage in the development of world-class manufacturing operations through the use of our knowledge and the data we have accumulated over many years.

Tokyo Electron Miyagi is implementing innovations in manufacturing, centered around the Miyagi Technology Innovation Center which began operations in October 2021. Specifically, we are promoting the construction of a Smart Manufacturing Line to manufacture products with consistent quality, while realizing reduced human effort and incidents.

By introducing an automated warehousing system and picking robots into our logistics process, we have increased our productivity by 30%. Going forward, our aim is to dramatically increase productivity by further evolving production technologies through the advancement of integrated innovation in the manufacturing and administrative support processes. We strive to realize and further promote Smart Manufacturing by reforming the manufacturing line as well as product design to create machine operated processes, and by obtaining, analyzing and utilizing various data from those machine operations.





Image of the Smart Manufacturing Line



Automated Machine Evaluation at the Mivagi Technology Innovation Center

#### Standardization and Leveling

To realize our Medium- to Long-term Management Plan, we aim to further increase productivity through advancing standardization of components and the leveling production, which are important themes in each manufacturing process. Specifically, by revising the standards used when selecting different parts in each Group company, we will increase the proportion in which common parts are utilized for existing equipment and equipment to be developed in the future as ONE TEL. Furthermore, operational systems that rely on intuition and experience should be terminated, and we promote standardizing and making operations visible by meticulously organizing BOM<sup>1</sup>, BOP<sup>2</sup> and master data in a database. In addition, productivity and procurement performance will be made visible through methods consistent throughout the Group by confirming database analysis techniques and evaluation standards.

Up to now, we had been carrying out various activities to fit

optimal business models based on production systems for each product in each of the main manufacturing sites. Going forward, by realizing the standardization of components and leveling

production, we aim to become a top-level global manufacturing plant while improving labor-saving and work-life balance.

- 1 BOM: Bill of Materials
- 2 BOP: Bill of Process

Basic Strategy According to Production Area

Achieving Digitalization and Decarbonization

**Smart Factory** 

**ONE TEL Strategy** 

#### Best-in-class Research, Development, Production Capabilities

We strive to increase development and manufacturing sites. As semiconductor manufacturing becomes increasingly complex, keeping up with future technological innovation in semiconductors will be difficult using only conventional technologies and equipment. In addition to existing products, accelerated development of new products is also crucial.

For these reasons, following Tokyo Electron Technology Solutions (Yamanashi and Iwate), Tokyo Electron Miyagi and Tokyo Electron Kyushu (Kumamoto), TEL Manufacturing and Engineering of America in Minnesota, U.S.A. was designated as the fourth development and manufacturing site where we are pursuing activities that aim to establish plant functions at the same level as our domestic sites. Moreover, we own TEL Technology Center, America in New York, as a site for R&D and process integration, as well as Tokyo Electron America, located in California and Texas, which are hubs for semiconductor knowledge. By collecting and utilizing R&D information from

these sites, TEL Manufacturing and Engineering of America strives to reduce lead time from development to production and deliver our equipment even faster to our customers.

As device manufacturing becomes increasingly complex and difficult, Shift Left has become even more important in recent years. At our company, we are strengthening existing products, creating new technologies that do not yet exist, and making efforts to quickly implement them into equipment. We will pursue

best-in-class operations by building a comprehensive system from development to production in the United States in addition to Japan



TEL Manufacturing and Engineering of America





## Initiatives to Reduce Environmental Impact

To achieve net zero in 2040, we are proactively expanding our E-COMPASS<sup>1</sup> activities and implementing a variety of measures at our plants and offices as well as in logistics and the supply chain.

At each plant and office, we continue making energy usage visible, implementing energy efficiency measures and purchasing renewable energy (electricity). In logistics, we are actively implementing modal shifts<sup>2</sup> and packaging materials that reduce environmental impact. These initiatives were recognized and were selected for commendation by the Maritime Bureau Director of the Ministry of Land, Infrastructure, Transport and Tourism. The commendation comes as part of the 2022 Eco-ship Mark Certification program<sup>3</sup>.

We also grant the "Environmental Partners" commendation to suppliers that cooperate in and contribute to our environmental efforts and certify them as "Green Partners."

- 1 E-COMPASS P. 52
- Modal shift: Transitioning from transportation by car and air to rail and ship, which have lower
- 3 Sponsored by the Eco-ship Modal Shift Business Execution Committee

#### **Initiatives in the Value Chain**



We will build strong relationships of mutual trust with our customers by providing the Best Products, Best Technical Service to be their sole strategic partner. By leveraging our strength as a semiconductor production equipment manufacturer with a diverse product lineup and proposing optimal solutions, we will contribute to the creation of further value for our customers.

#### **Key Themes for Medium- to Long-term Value Creation**

- Improving our responsiveness to customers and customer satisfaction
- Increasing mutual profits by providing the Best Products, Best Technical Service
- Maintain and improve our position among our major customers

Intellectual capital

Management

Resources to Be

Invested

# A global sales and service

in which the Account Sales Division, the Global Sales Division, business units and overseas subsidiaries coordinate with one another

Intellectual capital

born from our diverse

product lineup

**Broad-ranging knowledge** and comprehensive technological capabilities

records

Social and relationship capital

#### **Mutual trust with** customers

built through many years of performance



#### **Differentiation Points**

#### **Co-creation with Customers**

- Co-create future technology roadmaps with our customers
- Concurrent evaluation of technologies anticipating four generations and beyond in the future
- Technological development of Shift Left

#### **Global Operations**

- Accurate and timely understanding of customer
- Developments by the Account Sales Division and Global Sales Division

### **Optimal Solutions**

- Equipment for the four sequential key processes in the front-end process
- Provision of equipment geared toward the MAGIC\* market, reengineered equipment, etc.
- Integration of front-end and back-end process technologies

Expansion into the Diversified Semiconductor Market P. 40

#### **Pursuit for Customer Satisfaction**

- Sole strategic partner
- Company's own Customer Satisfaction Survey and improvement activities

#### **Value Created**

#### **High-value-added products**

incorporating innovative technologies through concurrent evaluation of technologies anticipating four generations and beyond in the future

Risk 1

Market Fluctuations

#### **Products and solutions**

responding to a variety of applications

#### **Responsiveness to customers**

through close collaboration throughout the entire Group

**Related Main Risks** 

Geopolitics

Risk Management P. 75-76

Risk 3

Risk 10

Information Security

#### Main Material Issue Initiatives in Sales





#### **Development of Global Operations**

We established the Account Sales Division and the Global Sales Division, and strive to swiftly offer the technology, services and solutions sought by our customers to be the sole strategic partner for our customers. In the Account Sales Division, the needs for next-generation leading-edge technologies in memory, logic devices, foundry and other fields are shared by major semiconductor manufacturers, who are our traditional customers, and the information from this is used for the R&D of new

technologies. The Global Sales Division responds to the needs of domestic and overseas customers that handle products for the rapidly growing Chinese market and the industrial IoT market.

These two divisions work closely with business units, development and manufacturing divisions, service divisions and overseas subsidiaries to develop global operations throughout the Group as ONE TEL, enabling us to further strengthen our responsiveness to our customers.







#### Proposing Customer Solutions Leveraging a Wide Range of Product Lineup

We are expanding the wide range of our product lineup, including equipment for the four sequential key processes of deposition, coater/developer, etch and cleaning in the front-end process, as well as equipment for testing and bonding/debonding processes in the back-end process. By leveraging this product lineup in our proposal activities, we will solve customers' issues and contribute to the manufacturing of highly competitive semiconductors.

In the front-end process, we are undertaking the development of equipment with innovative and extreme processing performance, centered on (1) deposition systems that can handle new materials and structure while utilizing batch, semi-batch and single-wafer characteristics and allow optimal film thickness and film quality control, (2) coater/developers for leading-edge EUV lithography, (3) etch systems that achieve

precision processing of fine structure and processing of deep holes and trenches with high selectivity, and (4) cleaning systems that remove particles and residues—which are causes of lower yields—without causing the collapse of fine patterns. Possessing equipment with four sequential key processes allows us to propose solutions for issues faced by customers from a variety of approaches, including process integration based on an understanding of upstream and downstream processes. Specific proposals include processing methods in the deposition and etch of hard masks necessary for the processing of ultra-fine patterns as well as proposals for cleaning methods according to the residues generated after deep-hole etching and deposition methods—including preprocessing—according to the surface state after cleaning.

#### Our Product Lineup

Front-er	nd								Back-end
	Deposition	1	Coater/Developer	Et	ch	Cleaning	Testing	Bonding/D	ebonding
					[] 	1			lund
TELINDY PLUS™	NT333™	Triase <sup>+™</sup>	CLEAN TRACK™ LITHIUS Pro™ Z	Tactras™	Episode™ UL	CELLESTA™-i	Prexa™	Synapse™ Si	Ulucus™ L

We also possess wafer probers used in wafer testing and bonder/debonder that realizes 3D packaging in the back-end process. In the future, there will be a demand for further improvements in the performance of semiconductors as well as scaling technology using cutting-edge nodes to improve the performance in generative AI services and expand the application range. To achieve this higher performance, the introduction of advanced packaging technology called Chiplet is accelerating, which combines individualized semiconductors. To meet these demands, we will proactively provide solutions for bonding processes necessary for both next-generation scaling technology

and packaging technology, and introduce KGD\* testing equipment, essential for Chiplet.

In addition to these measures, we strive to help customers improve productivity and quality in their development and manufacturing by providing optimal solutions that include remote support systems and software for maximizing equipment utilization rates. We are also continuously working to improve the performance of installed equipment to respond to customer requests for the manufacture of products that span multiple generations.

\* KGD: Known Good Die. Semiconductor chips with guaranteed quality, including reliability

## Expansion into the Diversified Semiconductor Market

In recent years, the semiconductor has been diversifying to meet the needs of various applications, such as the spread of virtual space due to digital technology, EVs and the autonomous driving level of automobiles as well as IoT and devices for communication represented by generative AI, which is driven by digital transformation (DX) and green transformation (GX). We define the diversified semiconductor market as MAGIC (Metaverse, Autonomous mobility, Green energy, IoT & Information, Communications) market, and are strengthening our business by leveraging our leading-edge technologies and experience based on our extensive installation record.

Each business unit within our company has continuously suggested functional revisions with a focus on customers in the 300mm equipment mature (legacy) node market until now. And, to meet further demands, we established the DSS (Diverse Systems and Solutions) BU and strive to continuously enhance corporate value by efficiently allocating management resources to the MAGIC market, which is expected to grow at a high rate in the future. We are working on a variety of functional developments

with our customers by providing optimal equipment groups in anticipation of the shift to 200mm of SiC<sup>1</sup> processes and engaging in new technological development including the Waveguide<sup>2</sup> for the metaverse and dealing with µLEDs.

Furthermore, to respond to the diverse needs of our customers considering the use of existing equipment, we suggest options to increase the productivity of existing equipment and are expanding reengineered equipment that extend the lifecycles of 200mm equipment. In addition to the ALPHA-8SE<sup>TM</sup> i, UNITY<sup>TM</sup> Me+ and NS300+ 200mm Conversion currently on the market, we also began the sale of coater/developer reengineered equipment, the CLEAN TRACK<sup>TM</sup> Act<sup>TM</sup> 8Z in fiscal 2024.



- SiC: a compound semiconductor material consisting of silicon (Si) and carbon (
- 2 Waveguide: a transmission line that communicates using light and is made of material with optical properties

# Initiatives for Improvement of Customer Satisfaction

We are working to build solid relationships of mutual trust with customers by enhancing customer satisfaction, which we have valued highly since our founding. In the semiconductor production equipment industry, in which the speed of technological innovation is rapid, we co-create future technology roadmaps with the semiconductor manufacturers that are our customers, to promote the concurrent evaluation of technologies four generations into the future and beyond and accelerate the technological development of Shift Left. This allows us to offer highly competitive products that help improve customers' productivity by improving the yield rate of devices and maximizing equipment utilization rate.

Furthermore, at customer sites around the world, we are continuously implementing customer-oriented initiatives such as assigning our company engineers to quickly install equipment to operate at maximum performance, proposing solutions to any specific technical issue and providing feedback on next-generation equipment.

In addition to these activities, we conduct our own Customer Satisfaction Survey every year. The information obtained from this survey is analyzed by business unit (product), account (customer) and function (software, development, etc.), and the results are shared with relevant divisions, such as sales,











Our activities were highly evaluated and we received best awards consecutively from many of our customers in fiscal 2024. We will continue to provide the Best Products with innovative technology and Best Technical Service with high added value and strive to further improve customer satisfaction to be the sole strategic partner for our customers.

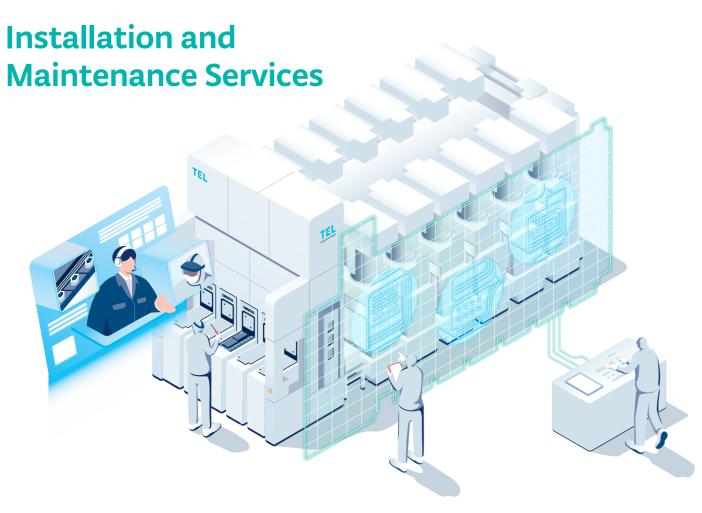
#### PDCA Cycle



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### **Initiatives in the Value Chain**



We make full use of leading-edge digital technology, knowledge management tools and offer the Best Technical Service with high added value to support the stable operation of various generations of equipment for a diverse range of applications. Taking advantage of our world's largest installed base, we are further improving the quality of our services by providing advanced field solutions that solve customers' issues.

#### **Key Themes for Medium- to Long-term Value Creation**

Improving customer satisfaction through the provision of high-value-added services Maximizing service revenues through expanded sales of services such as comprehensive contract-based services Pursuing high-quality and highly efficient services that make full use of digital technologies

Intellectual capital

Service support infrastructure at **87** sites located in

19 countries and regions

of the world

Management

Resources to Be

Invested

Intellectual capital

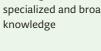
Service database and remote support system

that utilizes digital technologies, knowledge management etc.

Approximately 5,300

Human capital

field engineers with highly specialized and broad



#### **Differentiation Points**

#### **Field Engineer**

- Prompt and efficient service by field engineers who work on a global scale
- Continuing skills improvement programs for engineers

#### **Installed Base**

- Utilization of equipment data from the world's largest
- Relationship of absolute trust with customers based on our reliable technical services

#### **Efficiency through DX**

- Development of Service CRM\* that centrally manages operation history
- Provide advanced field solutions through the use of remote maintenance services and remote support tools
- \* Service CRM: Service Customer Relationship Management

#### **Equipment Life Cycle**

- Support for ongoing equipment operation
- Initiatives for reducing environmental impact

#### **Value Created**

#### **Comprehensive services**

resulting from global expansion that include everything from equipment installation to maintenance

**Contribution toward** the long-term steady operation of equipment

across many generations

**High-quality technical services** contributing to improving customers' productivity

**Related Main Risks** Risk Management P. 75-76 Risk 5 Risk 6 Risk 11 Safety Quality **Human Resources** 

#### Main Material Issue Initiatives in Installation and Maintenance Services







#### Globalize Field Engineers and Strengthen Customer Responsiveness

Amid the expectation for rapid expansion of the scale of business, going forward, it is extremely important to increase field engineers, develop people that can promptly play an active role as well as effectively improve the skills of existing field engineers.

Our company establishes a Group-wide common skills management system that meets the standards of Semiconductor Equipment and Materials International (SEMI) and plans to upgrade skills according to the detailed goals established every year. The system helps us to improve the quality of the services we deliver to customers, by enabling the optimized deployment of human resources that utilize information about engineers' skills which have been managed in this manner.

Furthermore, we are expanding our program to reassign engineers who had undergone training at manufacturing sites in Japan for a fixed period to the field after their return to their companies, as part of our education for expert engineers for overseas subsidiaries. By participating in this program, engineers can not only deepen their understanding of equipment technology but can further improve their communication skills with engineers in the development and manufacturing divisions and business units. In addition, we offer high quality technical support that incorporates customer needs and implement programs to develop leaders in the field who can play an active role globally using high level skills.

In our equipment training geared toward our customers and our company engineers, we have established an environment where even more engineers can take courses by centrally managing information, such as training machines, instructor schedules and a record of training requests to courses taken, in a dedicated system.

We have also assigned engineers to our customers' onsite operations, and created a system where those engineers can be efficiently dispatched to where they are needed, regardless of country. We are proceeding with innovations to effectively implement education that is provided at the optimal time and short in duration, in which the whole structure is transparent, while promptly confirming the certifications and educational situations of our dispatched engineers to ensure high quality

In addition, we are undergoing renewals and expansion at each of our service sites and creating an environment where we can provide quick and efficient support to match the needs of our customers.





#### Support Services that Extend the Life Cycle of Equipment

As part of our efforts to have our customers use our equipment over a long period of time, we provide LEAP\*, a support service that extends the life cycle of our equipment. Support for semiconductor production equipment typically ends seven to eight years after discontinuation of equipment due to the discontinuation of parts or the difficulty in maintaining safety and quality. For this reason, equipment for which support has ended is discarded and replaced with succeeding equipment. We now provide support service that makes the extension of the life cycle of equipment whose production was discontinued over 15 years ago possible

by redesigning discontinued parts and restructuring and strengthening our support system including repairs.

We support customers who have difficulty with replacement with newer equipment due to restrictions on change management of equipment specifications or operations, or who hope to continue using their equipment. Through this support, while implementing initiatives that reduce equipment disposal and environmental impact, we contribute to the continuous operation of customers' equipment over a long period of time.

\* LEAP: Lifecycle Extension and Availability Program

# Promotion of High-value-added Services

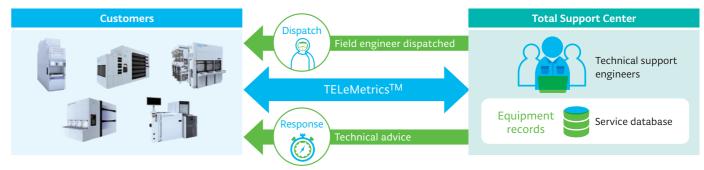
We have built a global support system by highly specialized engineers, establishing Total Support Centers (TSCs) in Japan, the United States, China and Europe.

By accumulating large amounts of operation history, such as equipment support in everyday activities in Service CRM, which is centrally managed globally, as well as creating equipment records and building troubleshooting search tools as knowledge management activities, TSC and onsite field engineers use these tools to provide prompt and high-quality services to our customers. We are also developing a system that centrally manages internal operation procedures created by field engineers onsite to improve the efficiency of procedure creation, quality, and searchability of operation procedures, and are preparing to roll them out globally. In addition, we strive to resolve our customers' various issues through the use of TELeMetrics™, a

remote maintenance service, and remote support tools.

Our company provides several contractual services for the stable operation of equipment, such as services in which our field engineers are stationed at customers' manufacturing sites to maintain their equipment, as well as a comprehensive contractual service (TEL Service Advantage Premium) in which we offer pay-as-you-go or flat-rate maintenance services, supply maintenance/consumable parts and repairs in an integrated

Furthermore, to shorten trouble resolution time and stabilize process performance, we aggregate and analyze data output from equipment, predict the timing of failure of major parts and suggest replacements in advance so that we can continually implement activities that lead to improved equipment utilization



# Global Expansion of Training for Customers

We establish training centers all over the world, mainly at our development and production sites, and provide global training to customers on equipment operation and maintenance so that products can be used safely. With our customers' safety as the priority, we conduct effective training using remote learning and training videos, while flexibly dealing with changes in

Going forward, we will strive to further enhance our training environments, including continuously expanding training equipment lineup and updating the training centers of our overseas subsidiaries.

## Main Training Sites for Customers













# **Sustainability Initiatives in the Value Chain**

Our approach to sustainability initiatives is to practice our Corporate Philosophy through realizing our Vision. We conduct activities for sustainability initiatives that we have organized into the following four frameworks: Governance, Strategy, Risk Management, and Metrics and Targets.

#### Main Initiatives in the Four Frameworks

• Corporate Sustainability Management Department established at headquarters and the sustainability initiatives are promoted throughout the entire Group

#### Governance



- Meetings of the Sustainability Committee, chaired by the executive officer in charge of sustainability, are held twice a year. Corporate Officers, Division Officers and presidents of domestic Group companies and overseas subsidiaries attend the meetings to set short-, medium- to long-term sustainability goals, manage progress, formulate sustainability-related policies and discuss individual themes. Decisions on important matters are made at Corporate Officers Meetings, the highest decision-making body on the executive side
- Group-wide sustainability initiatives are reported on as necessary at meetings of the Board of Directors, and the Board of Directors supervises those initiatives

• Focus on the creation of social and economic value of business activities based on the idea of TSV (TEL's Shared Value), which is the same as CSV, to solve social issues using our unique corporate resources and expertise

#### Strategy



• Identify key items to be worked on with priority as material issues\* and develop the value chain through business activities anchored around material issues while leveraging the strengths built by the driving forces of growth behind our company

• While implementing a range of sustainability initiatives through business activities, contribute to solving issues in industry and society and achieving the SDGs by providing the Best Products with innovative technology, and the Best Technical Service with high added value, and achieve medium- to long-term profit expansion and continuous corporate value enhancement

\* Material issues were revised in fiscal 2024 Material Issues P. 13-14

#### Risk Management\*



- Respond appropriately and promptly to a diverse range of risks related to semiconductors, including geopolitics and market changes, develop a risk management structure for achieving sustainable growth, and carry out enterprise risk management to promote more effective activities
- In addition to minimizing the impact of risks, that may be faced when conducting business, by giving them full consideration from a future perspective, also view them as business opportunities and appropriately address them
- Uncover Group-wide comprehensive risks, identify high-impact and high-probability risks as material risks for the Company, and appoint a risk owner for each risk. Focus on risks that are particular issues in meetings of the CEO and Division Officers, confirm status of related initiates and discuss improvement measures

Risk Management P. 75-76

#### Metrics and Targets



- Set key indicators for continuous corporate value enhancement <sup>1</sup> in our Medium-term Management Plan and annual sustainability goals <sup>2</sup>
- The results and status of the achievement of key indicators and annual goals are reviewed regularly at the review meeting
- Conduct activities to achieve each indicator and goal under the persons responsible for each indicator and goal
- Key Indicators for Continuous Corporate Value Enhancement P. 17-20
- Sustainability goals and results" on our website www.tel.com/sustainability/goals-and-results/index.html

### **Human Resources**

#### Our Corporate Growth Is Enabled by People, and Our Employees Both Create and Fulfill Company Values

We believe that our corporate growth is enabled by people, and our employees both create and fulfill company values. Based on this approach, we provide many opportunities for employees to challenge themselves to achieve high-level goals by making the most of their individual potential. Of particular importance in our human resource management are the TEL Values, motivation-oriented management, and diversity, equity and inclusion.

TEL Values as a Code of Conduct





TEL Values P. 5-6

We looked back at Tokyo Electron's values accumulated since our founding and what it means to be Tokyo Electron. We summarized what we hope to honor in the future as TEL Values. The five TEL Values — pride, challenge, ownership, teamwork and awareness — represent our fundamental approach for management and employees to work together as one to flexibly and rapidly respond to environmental change and to fully harness our potential. We conduct a range of activities to promote awareness of TEL Values, including messages from the CEO and other members of management, and sharing interviews with employees who both experience and embody TEL Values in their daily work. Through these initiatives, we communicate the importance of our employees taking on new challenges without fear of failure, and of various departments and each Group company collaborating to address issues. In our new employee training, we also encourage the understanding and practice of TEL Values upon entry into our company. We do this in a number of ways, including lecture from management, formulation of action plans through group work, and discussions upon defining one's own strengths and distinctive qualities as My Values. The TEL Values are an important set of values that we intend to pass down to future generations, and our employees around the world work hard to put these values into practice.

#### Motivation-oriented Management

We operate in 87 sites in 19 countries and regions, globally. We believe it is important for human resources with different cultural backgrounds, experiences and attributes to share values and work together as one toward value creation. We believe that each of our employees, maintaining a high level of engagement and demonstrating their full potential, will lead directly to our growth as a company. Accordingly, we practice motivation-oriented

management. Specifically, we are implementing important measures in line with the following five points.

#### Five Points for Motivation-oriented Management

- 1 Awareness that our company and work contributes to the development of industry and society
- 2 Dreams and expectations of the Company's future
- 3 Opportunities to take on challenges
- 4 Fair evaluations that recognize employee efforts and globally competitive rewards
- 5 Workplace with an open atmosphere and positive communication

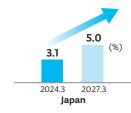
As examples of important measures, we are operating a common global job-based grading system (GTC: Global TEL Career-paths) and clarifying career paths for Individual Contributors (ICs) (TCL: Technical Career Ladder), as well as adopting a performance management system for promoting employee growth and performance enhancement. In these and other ways, we are developing human resource systems for surviving in the middle of global competition, creating opportunities for employees to take on challenges, and actively supporting career development.

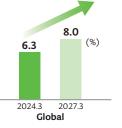
#### Diversity, Equity and Inclusion (DE&I)

With the strong commitment of managements, we actively promote DE&I as one of management pillars that leads to the continuous generation of innovation and increased corporate value. Based on the idea that "ONE TEL, DIFFERENT TOGETHER™" with 3G (Global, Gender, Generation), we have taken on nationality, gender and generation as major themes. Each Group company is implementing various initiatives, such as setting the following goals.

- To enable employees with diverse experiences from around the world (ratio of domestic employees to overseas employees is 55:45) to play an active part, we promote career development and personnel exchange across countries and regions based on a common global human resources system
- Conduct a gender diversity-conscious talent pipeline (plan for developing human resources) for succession planning and achieve the target of increasing the ratio of female managers to 5.0% in Japan and 8.0% globally (by fiscal 2027). Set further future target values upon based on the shifting ratio of female employees







TOKYO ELECTRON Integrated Report 2024 46

- Taking into consideration that many of our employees are engineers, we actively invest in the use of recruiters and employer branding to hire female engineers at a level that is equal to or greater than the general ratio of female engineers<sup>2</sup> in each region
- We plan to hire a total of 10,000 employees globally through new graduates and mid-career hires over the next five years. In addition, in Japan, we revised a post-retirement reemployment system that allow employees to utilize the experience, knowledge and skills they acquired in the Group. Through such initiatives, we will revitalize the organization so that employees over a wide range of generations can maximize their capabilities
- In 2020, we began the "Diversity, Equity and Inclusion Talk (DE&I Talk)" with TEL's project leaders and external experts. We create networking opportunities for employees with similar characteristics and experiences, and hold roundtable discussions about careers before and after taking maternity/ paternity leave and childcare leave
- Include individual contributors and employees reemployed after retirement
- 2 The ratio of females majoring in science or engineering

#### "Diversity, Equity and Inclusion Week (DE&I Week)"

In January 2024, we expanded the scale of the DE&I Talk we had been holding until then and held DE&I Week for Group employees around the world. Specifically, we held a total of 15 events dealing with DE&I from a variety of angles, such as training using VR where employees experienced "If I were in that position, how would I feel and what would I think?" to promote the understanding of DE&I, a conference for women engineers, an event promoting paternity leave and talks about topics such as unconscious bias\*. Through participation in such events, we promote DE&I throughout the entire Group to deepen employees' interest and understanding of DE&I with "ONE TEL, DIFFERENT TOGETHER™" as our slogan.

Unconscious bias: Unconscious prejudice. Distortions and partiality regarding how one perceives and interprets things that the person themself is unaware of.

#### Major DE&I Activities

As a global, borderless company, we are implementing various initiatives as detailed below to leverage the strengths of our diverse human resources and create well-balanced systems and teams

- By creating and publishing reports on the DE&I activities in all of our Group companies, including overseas subsidiaries, we
- make the activities of each site more visible. We also communicate internally and externally through an internal newsletter, intranet, social media and other channels



- We newly launched "DE&I" within our external website in 2024 Under the idea of "ONE TEL, DIFFERENT TOGETHER™", we introduce activities that actively promote DE&I, consisting of four focus areas, including Diverse Work Styles in addition to the 3Gs
- Hold Career Design Seminars for Female employees. With voluntary attendance of about 160 employees, participants acquire basic knowledge of such things as self-leadership skills for independent career planning. Participants explore their career potential at us by learning self-centered career design and personal strength-based leadership, etc.
- Employees have participated in NPO J-Win<sup>1</sup> programs since 2021. By meeting role models and aiming for career advancement through activities with members of other companies in external environments with high levels of diversity, the programs help participants increase their willingness to take on the challenge of positions in management or senior director and above<sup>2</sup>
- We continuously support the Employee Resource Group (ERG) to create networking opportunities for employees with similar characteristics and experiences
- An LGBTQ+ helpline was established in April 2021, and a congratulations and condolences system that includes samegender partners was adopted from October 1, 2022. The aim is to improve and expand systems and facilities going forward to ensure ongoing development of workplaces where everyone, not just the people concerned, can work with enthusiasm and energy
- New graduates and mid-career recruits are continually employed on the basis of whether they will work actively at us, regardless of gender, nationality, generation or other characteristic, by considering such aspects as their expertise, experience, and expectations for their future
- NPO J-Win: Japan Women's Innovative Network was established in April 2007 as a corporate member-based organization with the aim of supporting the promotion and establish management in companies
- 2 Employees of a certain level or position based on the global human resources system

#### **Employee Engagement**

Improving employee engagement is essential to maximize corporate performance and achieve sustainable growth. Recognizing that employees both create and fulfill company values for us, we have been regularly conducting engagement surveys since fiscal 2016 to assess the current state of employee engagement and identify issues.

In the survey implemented in fiscal 2023, employee engagement scores improved by 18 points in nearly all Group companies in Japan and overseas subsidiaries between fiscal 2016 and fiscal 2023. Based on the results of these surveys and on employee feedback, we endeavor to establish better workplace environments and are working to foster a better

corporate culture that empowers all our employees to maximize their individual abilities in an open-minded environment, to engage energetically with their work and to participate in constructive discussions and exchanges of opinions. Specifically, we implement information sharing by holding all hands meetings so that management can incorporate opinions from onsite employees, hold discussions between both management and employees in the entire Group as a whole and strive for revitalized communication. Furthermore, we pursue strengthening and improving the foundations of management by promoting further improvements in operational efficiency through enhanced work-life balance and digital transformation as well as initiatives related to safety, quality and compliance.

Due to these results, our employee retention rate\* reached extremely high levels and in fiscal 2024, was 97.5% globally and 98.8% in Japan. Going forward, we will continuously and efficiently implement various activities.

\* Calculated using data on turnover rate



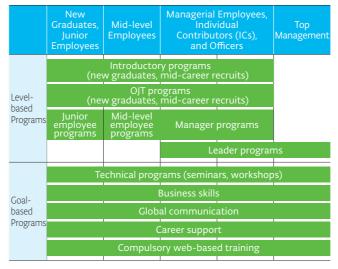
Fostering a workplace environment and culture

#### **Developing Human Resources**

Our company is engaged with the development of human resources that can play an active role on the global stage amid rapidly changing business environments. To maximize the performance of each employee, we place importance on our employees' motivation and are globally developing human resources strategies so that the company and our employees can both continue to grow.

In 2023, with the aim of contributing to the development of individuals capable of leading the technological innovation in semiconductors, we participated in the U.S.-Japan University Partnership for Workforce Advancement and Research & Development in Semiconductors (UPWARDS) for the future.

#### The Overview of TEL UNIVERSITY



TEL UNIVERSITY is our company's internal educational institution established in 2007, which fosters a culture of learning and provides opportunities for self-growth for each individual employee. Through TEL UNIVERSITY, we implement the following initiatives for the development of human resources, which are indispensable for the future development of our company.

#### **TEL UNIVERSITY**

#### TEL Principles of Human Resource Development

- 1. Self-motivation and a sense of responsibility are the basic requirements for developing the talents of employees.
- 2. The workplace supports employee development.
- 3. The company provides employees with opportunities and incentives to learn and must build the necessary platform or

#### Global and On-demand Learning

Since all employees grow in different ways, we provide on-demand education that enables employees to learn what they want, when they want. In response to the diverse ways in which people work, we actively utilize online and remote training to provide a common platform for learning in any location in the world.

#### Support for Career Development

We are expanding our programs to help employees quickly acquire basic skills based on the level and goals of the employee through the global human resources system. We also provide information and tools so that employees can gain a more concrete image of their own career development by learning and building on their experience.

#### Leader Programs

We identify the next generation of future leaders early on and provides systematic training. Through this, we aim to enhance corporate value in the medium- to long-term. The next generation of potential future leaders are provided with opportunities to build networks and develop broader perspectives through participation in external training and receiving 360-degree feedback\*. The management, including outside

directors, also engages in consideration and reviews concerning the systematic assignment of these potential leaders.

We also work to promote human resources development cycles at our business sites; for the managerial employees for potential future leaders, we provide level-based training for various duties, with the goal of improving their skills in a practical manner.

\$360-degree feedback: Process for collecting feedback from the subordinates, peers and supervisors of employees as well as self-assessments by the employees themselve

#### Work-life Balance

#### Leave System

We believe that employees are high productivity when they can properly manage their work hours and take leave. Accordingly, we are working to eliminate long working hours, and to both enhance our leave systems and encourage employees to make use of them. We have set a medium-term target of ensuring that our employees take 80% or more of the paid leave available to them. To this end, we educate employees on how to take leave in a systematic manner, regularly monitor how much leave employees have available and encourage management styles aimed at improving leave usage rates. In fiscal 2024, the rate of employees taking advantage of paid leave was 80%, achieving our medium-term target.

We also operate a unique "refreshment leave system" in different countries around the world, depending on the prevailing circumstances. This system aims to provide both mental and physical refreshment for employees, and so boost their motivation to work. In Japan, employees who have worked at the company for 10 years or more are granted special, supplementary paid leave of between two weeks and one month for every five years of continuous service. In fiscal 2024, 630 employees

in Japan and 827 employees overseas took advantage of refreshment paid leave. We are also working to establish various other leave systems for different life events, including



Refreshment leave (Global)

childcare leave, leave to care for a sick or injured child, childcare support leave<sup>2</sup> and paid leave to provide nursing care. Employees are permitted to extend childcare leave until the day the child reaches three years of age; employees are now also eligible for the reduced working-hours program for childcare until the child graduates from elementary school.

- 1 Usage for employees in Japan
- 2 Leave to care for a sick or injured child: Employees are granted five days of paid leave per year until the child enters elementary school; childcare support leave: employees are granted five days of unpaid leave per year until the child enters junior high school

#### Health and Productivity Management

For our company to continue to grow, it is important that every employee leads a fulfilling life and maximizes their performance. We strive to create a healthy and safe work environment and our approaches were summarized in the "Declaration of Health1" in 2012. We built an effective health management system under the direction of executives in charge of human resources by assigning occupational health physicians and public health nurses in each plant and office.

Specific initiatives concerning health are, in addition to conducting various medical checkups in accordance with the law, offering face-to-face consultations by designated occupational health physicians for employees who work long hours. We also offer counseling opportunities supported by external industrial counselors for those who request them. Furthermore, we organize regular line-care<sup>2</sup> seminars aimed at management, and where necessary, hold liaison meetings with the health officers and health professionals at each Group company in Japan.

Based on the collaborative health<sup>3</sup> concept, in cooperation with the Tokyo Electron Health Insurance Society, we are actively expanding data health<sup>4</sup> initiatives, providing employees health guidance and effective prevention and health promotion according to their individual circumstances while utilizing the examination data from medical checkups.

As a result of these efforts, the entire Group in Japan collectively received recognition as a top 500 company under the 2024 Certified Health & Productivity Management Outstanding Organizations Recognition Program<sup>5</sup> for the fifth consecutive year from fiscal 2020.

Going forward, from the perspective of well-being<sup>6</sup>, we will promote the provision of an environment that is mindful of health so that employees can actively engage in their responsibilities with a sense of purpose and work with enthusiasm.

- Declaration of Health: Promoting various initiatives in response to health issues from the perspectives of eating, resting, walking and talking
- 2 Line-care: Measure for mental health, in which managers and supervisors be mindful of and care for the mental health of their subordinates and team members
- 3 Collaborative health: Situation where a company actively cooperates with an insurer, such as a health insurance society, to effectively and efficiently promote the health of its employees and their families
- 4 Data health: Refers to a more effective and efficient health care program that is implemented in line with the health status of insured persons, by utilizing and analyzing the health and medica information held electronically by the medical insure
- 5 Certified Health & Productivity Management Outstanding Organizations Recognition Program: The program publicly recognizes particularly outstanding organizations that are practicing health-oriented business management, based on initiatives attuned to local health-related challenges and on health-promotion initiatives led by the Nippon Kenko Kaigi
- 6 Well-being: Being in a completely good state physically, psychologically and socially

# **Human Rights**

#### Approach to Human Rights

As the activities of companies expand worldwide, human rights issues are getting serious in society. We believe it is important to eliminate human rights issues throughout the entire supply chain, including us, and to engage in sustainable business activities.

We are conscious of our corporate social responsibility, and we recognize that it is important to conduct ourselves with ethical behavior. We have firmly upheld human rights since our founding, as reflected in the spirit of our Corporate Philosophy and Management Policies. For us, respecting human rights is a

significant undertaking, consisting not only of eliminating the adverse impacts of our business activities on human rights, but also of respecting everyone who supports our business activities and contributing to the realization of a sustainable, dream-inspiring society. We incorporate the concept of respect into every aspect of our business activities, and strive to nurture a dynamic corporate culture where each person can realize their full potential.

#### Human Rights Policy and Promotion Framework

We formulated a Human Rights Policy<sup>1</sup>, referring to the United Nations' Guiding Principles on Business and Human Rights and the International Bill of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work referred to therein, the Ten Principles of the United Nations Global Compact and the RBA Code of Conduct<sup>2</sup>. Our Human Rights Policy specifies five focus areas: Freedom, Equality & Non-Discrimination; Freely Chosen Employment; Product Safety & Workplace Health and Safety; Freedom of Association; and Appropriate Working Hours & Breaks/ Holidays/Vacations. We thoroughly familiarize our executives and employees with the Policy and we demand that our suppliers also conduct their business activities in line with our Policy. We engage in active dialogue with all of our stakeholders, such as shareholders, investors and suppliers, striving to meet the demands and expectations of society. We also increase human rights awareness through internal online training and briefings for suppliers. Through this, we are promoting more effective protection of human rights.

Our Corporate Sustainability Management Department leads the promotion of human rights initiatives and important issues are deliberated by the Sustainability Committee and approved

at the Corporate Officers Meeting attended by the CEO. The executive officers in charge of sustainability report on the status of important human rights-related issues, the results of initiatives and the like at Board of Directors meetings, and the Board supervises these efforts.

Initiatives Which Align with the United Nations' Guiding Principles on Business and Human Rights



Human Rights







**Due Diligence** Declaration of commitment to respecting human rights violations, etc.

Identification assessment, prevention and mitigation of human

**Human Rights** 

Response to human rights violations, etc.

∠ "Human Rights" on our website

2 RBA Code of Conduct: A set of standards established by the Responsible Business Alliance (RBA) for supply chains in the electronics industry, to ensure that labor environments are safe, that workers are treated with respect and dignity, and that companies take responsibility for the environmental impacts

#### Human Rights Due Diligence

We actively conduct human rights due diligence annually to identify the adverse human rights impact (human rights risks) of the entire supply chain, take corrective actions and track the effectiveness of their response.

In fiscal 2024, we conducted a survey based on RBA auditing standards of 12 Group companies in Japan and overseas and approximately 690 suppliers involved in materials, staffing, customs clearance, packaging, etc. Consequently, "policies and procedures," "working hours and consecutive working days," "evacuation drills," "first aid" and "complaint-handling mechanism" were identified as high priority human rights risks. Various

corrective actions are being implemented to reduce these risks throughout the supply chain. Furthermore, of the high priority human rights risks identified in fiscal 2023, the issue of "retention of personal identification documents by the company" was addressed by returning pension booklets to employees, and other improvements were made to "policies and procedures," "first aid" and other risks. We verified the effectiveness of these corrective actions. We are currently verifying the effectiveness of other corrective actions with some issues requiring further improvements.

#### Study Results for Fiscal 2024 Management Systems 3% (2 cases) Management Systems 4% (241 cases) Major Ethics — 1% (69 cases) 2% (12 cases) Priority 1% (5 cases) 5% (1,856 cases) Priority N/A 3.062 cases 4% (25 cases) 1% (424 cases) NI/A 9% (3,545 cases) Minor

Our classifications and definitions of conformance as well as human rights risks based on RBA auditing standards are as follows. Priority: Issues considered particularly serious, which are at significant risk and require immediate priority regnegations.

Major: High-urgency issues which are at significant risk and require immediate remediation Minor: Minor issues and risks recognized in each area which require remediation Conformance: No issues were recognized in each recognized in each property of the p

Conformance: No issues were recognized in each area and requirements are being met N/A: Indicates that the respondent answered that "the question is not applicable."

\* Percentages may not add up to 100 because they have been rounded.

#### Human Rights Due Diligence Steps

Internal

Conformance 87% (607 cases)

ldentify adverse human rights impact Prevent/mitigate adverse human rights impact Track the effectiveness

Suppliers

Conformance 6% (30,126 cases 9% (3.690 cases)

Provide information and

High Priority Human Rights Risks, Corrective Actions, and Status of Improvements

7% (47 cases)

\* Improvements Status 🔘: Significant improvements made 🔝: Some issues remain

Human Rights Risk	Main Issues	Internal	Suppliers	Corrective Actions	Improvements Status*
Labor					
Policies and procedures Forced labor/bonded labor Child labor Pay reduction as disciplinary sanction Religious practices Freedom of association	<ul> <li>Policies and procedures are insufficiently defined</li> <li>Programs for measuring effectiveness have not been implemented</li> <li>Policies and procedures are not available in languages that can be understood by foreign laborers</li> <li>Employees are not made sufficiently aware of policies or procedures</li> </ul>		<b>~</b>	Suppliers  Disseminate the Tokyo Electron Group Human Rights Policy Hold briefings regarding the contents of RBA demands Formulate policies and procedures and translate them into multiple languages Internal dissemination	0
Working hours and consecutive working days	Excessive working hours     Excessive consecutive working days	•	<b>~</b>	Internal  Disseminate the working hours/days  Regularly monitoring to call for attention and confirm effectiveness Suppliers  Weekly working hours management  Regularly monitoring to call for attention and confirm effectiveness	Δ
Health and Safety					
Evacuation drills	Less than 100% of employees take part     Drills are not performed after sunset	<b>~</b>	<b>~</b>	Internal/suppliers  Define procedures  Conduct drills and follow up with people who do not participate in them Plan and conduct drills after sunset  Create and manage drill implementation records, Organize and share information regarding problems	Δ
First aid	First aid procedures have not been defined     There aren't enough first aid personnel		<b>*</b>	Suppliers  Define procedures  Assign an appropriate number of first aid personnel	0
Management Systems					
Grievance mechanism	Grievance mechanisms are not available in languages that can be understood by foreign laborers     Employees are not made sufficiently aware of the grievance mechanisms		<b>~</b>	Suppliers  • Multilingual support  • Internal dissemination	Δ

#### **Addressing Grievances**

We recognize the importance of addressing the harm caused by human rights violations swiftly and appropriately, so we make active efforts to address grievances. We have developed grievance mechanisms that are able to reliably address grievances by leveraging our Internal Reporting System, which is available to all stakeholders.

One specific measure we have taken is to request corrective

actions of suppliers who we have confirmed to have failed to comply with requirements regarding the bearing of employees' employment-related expenses in fiscal 2024.

Going forward, we will proactively roll out human rightsrelated initiatives based on a high level of ethics, and will continue working to mitigate human rights risks and address grievances within ourselves and across the entire supply chain.

#### Environment

#### E-COMPASS

As an industry leader, we are rolling out the E-COMPASS (Environmental Co-Creation by Material, Process and Subcomponent Solutions) environment-focused initiative. Through E-COMPASS, we will work together with our customers and partner companies to promote semiconductor technological innovation and reduce the environmental impact of semiconductors through our business activities, centering on the three perspectives of semiconductors, production equipment, and business activities. We will supply products and services with technological and social value through our entire supply chain, led by E-COMPASS, and will link this to sustainable growth.



Semiconductors

Pursuing higher device performance and lower power consumption

Achieving both high process and environmental performance

Reduction of CO<sub>2</sub> and equivalent emissions in all business activities



#### Initiatives with Suppliers

We believe we must further accelerate our efforts to preserve the global environment and the data-driven society, which will be a growing reality in the years ahead. To reinforce our partnerships with our suppliers, in March 2024, we held "TEL E-COMPASS Day 2024", a briefing session with all of our suppliers. At this briefing session, which was held using a hybrid approach, both online and in-person, we shared information about the progress we have made in our E-COMPASS activities and our net zero efforts. We also provided detailed explanations of environmentally-focused training materials, support plans, and more. This session, the third of its type, was attended by roughly 900 suppliers, of which roughly 70 attended in person, engaging in lively exchanges of information

In December 2023, we awarded three of our suppliers the status of Environmental Partners at "TEL Partners' Day", in recognition of their tremendous cooperation with the activities of E-COMPASS. In April 2024, we also conducted the "E-COMPASS Survey" to confirm matters including the state of suppliers' eco-friendliness with respect to the products they carry, the

status of their products' compliance with environmental laws and regulations, activities for reducing the environmental burden of their operations and more. Based on the results of the survey, in September, we plan to certify suppliers with an exceptional level of compliance with environmental laws and regulations and who are conducting excellent CO<sub>2</sub> emission reduction activities as Green Partners as an expression of our feelings of respect and gratitude

Achieving net zero\* by 2040 will require not only reductions in CO<sub>2</sub> emissions within Tokyo Electron but also cooperation in reducing emissions by our customers' and suppliers' production lines. We are engaging in discussions with some of our suppliers and fleshing out measures achieving these goals. We are also assigning persons in charge of net zero initiatives at each of our manufacturing sites and developing our internal systems. We will work proactively to preserve the global environment across the entire supply chain through our partnerships with customers and suppliers.

 Achievement of net zero greenhouse gas emissions from Group activities (Scopes 1 & 2) and from activities outside the Group (Scope 3) by 2040

#### **Environmental Management System**

Environmental measures are growing even more crucial. We have established an Environment Promotion Department in our headquarters, headed by our corporate director in charge of the environment. This department oversees multiple boards to promote efforts to address medium- to long-term environmental issues throughout the Group. We also issue reports on the state of progress of these initiatives to management, including the CEO, through the framework of councils set out in Table 1.

In accordance with the ISO 14001 certification that the entire Group (mainly our manufacturing subsidiaries) obtained in March 2017, we have identified environmental impact assessments and useful environmental aspects within this standard, and are executing a standardized group format for environmental management programs and internal audit checklists. To ensure compliance with the environmental laws and regulations of various countries, which undergo frequent revisions, we are making efforts to gather information regarding PFAS\*-related regulations at earlier stages and taking a proactive stance towards compliance. We were once again free from environmental incidents, violations and legal proceedings in fiscal 2024.

\* PFAS: Per and Poly Fluoroalkyl Substances. This is the collective term for perfluoroalkyl and polyfluoroalkyl compounds, a subset of organic fluorine compounds.

#### Table 1

Conference Name	Main Participants	Function	Meeting Frequency
Council for the Regular Reporting of Environmental Activities	CEO, Corporate Officer, manufacturing companies president, corporate director in charge of the environment	Report on matters discussed at the Global Environment Council and the TEL Corporate Environment Council and review items for approval	Quarterly
Manufacturing Companies Presidents' Council*  Manufacturing companies president, corporate director in charge of the environment, etc.			
TEL Corporate Environment Council	The GMs in charge of the environment and vice presidents of department, etc.	The promotion of environmental activities across the entire Group, set company-wide goals	Appropriately
Global Environment Council	Appointed members by the executives at headquarters and the Group companies	Set individual goals related to environmental issues, monitor progress, work to achieve our goals	Twice annually

<sup>\*</sup> At the Manufacturing Companies Presidents' Council, information is shared on business affairs and issues regarding environment, safety, quality, supply chain management, etc.

#### CO<sub>2</sub> Emissions across the Value Chain

Based on our environmental slogan "Technology for Eco Life," we aim to resolve environmental problems through leading-edge technology and reliable services, understand the environmental impact generated throughout our entire value chain and promote business activities to reduce that impact.

Our total CO<sub>2</sub> emissions of Scope 1 and Scope 2 is 43 kilotons,

while Scope 3 as the sum of upstream and downstream activities accounts for a total of 11,829 kilotons, 99.6% of the total. Of this,  $CO_2$  emissions when using products stand at 8,068 kilotons, about 70% of the total. This is why we consider the development of products with low  $CO_2$  emissions during operation to be important.

Upstream	3,692 kilotons	Scope 3 Upstream Not from our Grou	TE	Scope 1, 2 Own emissions	Down stream	8,137 kilotons	Scope 3 Downstream Not from our Group
Category 2 Ca Category 3 Fuel- and ener Category 4 Upstream trans Category 5 Waste generate Category 6 Bu	pital goods  gy-related ac  portation and d  d in operations	3,239 kil 366 kil tivities 31 kil distribution 12 kil 27 kil nuting 15 kil	Sco lotons Sco lotons Sco lotons	21 kilotons	Categor Use of so	y 11  y 12	65 kilotons

Direct greenhouse gas (GHG) emissions from use of fuel and gas we owned or controlled

Scope 2:
Indirect GHG emissions from use of electricity, steam and heat we purchased

Scope 1:

Scope 3: Emissions from corporate value chains (excluding Scope 1 and 2 emissions), such as product transportation, employee business travel and major outsourced production processes. Scope 3 is divided into

Scope 3 is divided into upstream activities, which include emissions associated with purchased or procured products and services, and downstream activities, which include emissions associated with sold products and services

In December 2023, we moved up the target year of our net zero target for 2050 by a decade, to 2040. We recognize dealing with climate change as a pressing global issue. We will implement various new measures, based on newly set targets. Through this, we will strive to preserve the global environment and actively

lead efforts to achieve net zero as a company of global excellence.

In October 2023, we received SBT\* certification, recognizing that the greenhouse gas reduction targets we had set for fiscal 2031 were scientifically based.

\* SBT: Science Based Targets. SBTs are targets that are set by companies for 5 to 15 years in the future and that match the standards required by the Paris Agreement.

Targets recognized as SBTs

- Reducing absolute Scope 1 and 2 GHG emissions 70% by fiscal 2031, using fiscal 2019 as a baseline
- Increasing active annual sourcing of renewable electricity from 2% in fiscal 2019 to 100% by fiscal 2031
- Reducing Scope 3 GHG emissions caused from the use of sold products by 55% per wafer processed by fiscal 2031, using fiscal 2022 as a baseline

#### **Environmental Goals and Progress**

 $\bigcirc$ : Exceeded target  $\bigcirc$ : Proceeding well  $\triangle$ : Need to accelerate to achieve the goal

Item	Scope	Target	Target Year	Fiscal 2024 Results	Evaluation
	Total CO <sub>2</sub> emissions	70% reduction	Fiscal 2031	75% reduction	0
Plants and	Renewable energy (electricity)	100%	Fiscal 2031	90%	0
offices	Energy consumption (per-unit basis)	1% year-on- year reduction	Maintain each year	Achieved by 2 out of 11 plants and offices	Δ
	Water consumption (per-unit basis)	Maintain base year level	Maintain each year	Achieved 10 out of 13 targets	0
Products	CO <sub>2</sub> emissions per wafer	55% reduction	Fiscal 2031	24% reduction	0
Logistics	CO <sub>2</sub> emissions	30% reduction	Fiscal 2027	18.4% reduction	0
Logistics	Switch from wooden crates to STW <sup>1</sup>	50%	Fiscal 2024 <sup>2</sup>	22.4% over full year period (26.4% in fourth quarter)	Δ

<sup>1</sup> STW: Strong Triple Wall. Reinforced cardboard made up of three layers. 2 Target period extended to fiscal 2025

### ■ Initiatives Concerning Own Emissions (Scope 1 and 2)

We aim to reduce total  $CO_2$  emissions from plants and offices by 70% (compared to fiscal 2019 levels) and use renewable energy for 100% of our power by fiscal 2031. By fiscal 2041, we plan to achieve net zero. The ratio of renewable energy used in all companies in fiscal 2024 was 90%. As a result of this, and assisted also by energy-saving activities, we have reduced total  $CO_2$  emissions from our plants and offices by 75%, enabling us to reach our target ahead of schedule. From fiscal 2025, we will change our target to a reduction of 85% and further promote initiatives to reduce  $CO_2$  emissions.

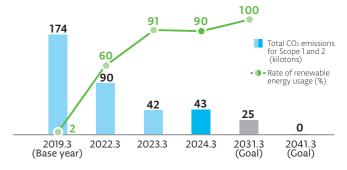
# Initiatives Concerning Emissions Not from Our Group (Scope 3)

We aim to reduce  $CO_2$  emissions per wafer by 55% compared to fiscal 2022 levels by fiscal 2031. We also seek to achieve net zero by fiscal 2041. As of fiscal 2024, we have reduced  $CO_2$  emissions per wafer by 24% compared to the base year.

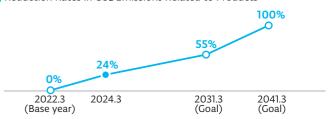
#### Logistics Initiatives

In fiscal 2024, we proactively promoted the adoption of STW and bringing about modal shifts in transportation. STW is lightweight, which is expected to reduce CO<sub>2</sub> emissions from transportation. It is also recyclable and has a lower environmental impact than wood. By fiscal 2024, we had aimed to have a switchover rate from wooden crates to STW of 50% or above, but the actual switchover rate was 22.4%. We will work to standardize STW packaging and promote its use with customers. Additionally, we will extend the target achievement period for fiscal 2025 and promote our activities. In addition, CO<sub>2</sub> emissions from logistics were reduced by 18.4% as a result of modal shifts (including greatly increased usage of ferries between Osaka and Fukuoka) and joint delivery. In recognition of these efforts, we were chosen for commendation by the Maritime Bureau Director of the Ministry of Land, Infrastructure, Transport and Tourism as part of

#### CO<sub>2</sub> Emissions Reductions from the Introduction of Renewable Energy, etc.



#### Reduction Rates in CO<sub>2</sub> Emissions Related to Products



the 2022 Eco-ship Mark Certification program sponsored by the Eco-ship Modal Shift Business Execution Committee.

#### ■ Initiatives for Product Development

We are working proactively on the development of products with reduced environmental impact. We are promoting the development of devices with high levels of environmental performance that leverage our technologies, such as etch technologies for 3D NAND use that are exceptionally fast yet an 84% lower global warming potential and laser separation technologies that contribute to technological innovation in state-of-the-art 3D device mounting and require no pure water for laser processing.

#### Initiatives Related to Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

Based on the TCFD recommendations, we examine the risks and opportunities that climate change poses to our business and take various response measures as we endeavor to make disclosures high in transparency. In fiscal 2024, we are considering the

contents of IFRS S2<sup>1</sup> and are disclosing them to the extent possible. In addition, we moved the net zero goals ahead of schedule from 2050 to 2040 and are actively pursuing initiatives to attain these goals.

#### Status of Initiatives Related to Recommendations of the TCFD

Items	Contents
Governance	<ul> <li>We have established the Environment Promotion Department and the Corporate Sustainability Management Department at our headquarters, and are pursuing initiatives for the TCFD under the entire Group</li> <li>Our responses to climate-related risks and opportunities and progress toward our goals have been reported on and deliberated at the Sustainability Committee, and approved at the Corporate Officers Meeting attended by the CEO</li> <li>The executive officers in charge of the environment and sustainability issues report on these initiatives to the Board of Directors, with the Board undertaking supervision</li> <li>At the Global Environmental Council, comprised of members appointed by executives of the headquarters and Group companies, goals are set, progress is monitored, and the achievement of these goals is promoted</li> </ul>
Strategy	<ul> <li>•We are conducting analysis that takes into account the following points in order to identify medium- to long-term risks and opportunities that climate change poses for our business</li> <li>• Location of plants and offices</li> <li>• Occurrence of natural disasters caused by climate change and status of damages</li> <li>• Demands from customers, investors, NGOs and local communities</li> <li>• Government policies and regulations and taxation</li> <li>• Technological and market trends relating to renewable energy and energy saving</li> <li>• Climate change scenarios predicted by external agencies and research results</li> <li>• Under the 1.5°C scenario, we identified transition risks including rising energy costs associated with fuel and energy taxes, and under the 4°C scenario we identified physical risks such as the impact of abnormal weather. On the opportunity side, we identified advanced initiatives to address climate change through technological development</li> <li>• Risks manifest upstream, in direct operations and downstream, while opportunities manifest and are analyzed in direct operations and downstream in the value chain</li> <li>• In response to these risks and opportunities, we are implementing the findings from our scenario analyses into our business strategies and are undertaking initiatives aimed at reducing greenhouse gas emissions across the entire supply chain and achieving our medium- to long-term environmental goals, through introducing renewable energy and providing innovative manufacturing technologies that will contribute to lower power consumption in electronic products. We will increase our resilience (responsiveness to climate change) as a company by periodically reviewing the identified risks and opportunities and our responses thereto</li> </ul>
Risk Management	<ul> <li>We have utilized enterprise risk management<sup>2</sup> to identify a wide range of risks arising in business activities, and have classified "Environmental Issues" including climate change as a key risk having high impact and probability of manifestation, and developed initiatives relating to this risk</li> <li>We have formulated and executed measures to minimize the risks of these "Environmental Issues," and are monitoring the effect of said measures, working to understand the status of risk control and implementing the PDCA cycle for management</li> <li>Short-, medium- to long-term company-wide risk management initiatives that are recommended by relevant divisions and councils are being undertaken at the facilities and divisions of the Group companies, after approval by the Manufacturing Companies Presidents' Council, which includes the corporate director in charge of the environment</li> <li>For Scope 1 and 2 CO<sub>2</sub> emissions, in addition to implementing measures to reduce CO<sub>2</sub> emissions at our key manufacturing sites in Japan with high emissions, we are pursuing the adoption of renewable energy on a global scale</li> <li>For Scope 3 emissions, we are focusing on the development of a range of environmental technologies and reducing CO<sub>2</sub> emissions in our suppliers' operations, based on recognition of the importance of providing products that generate lower CO<sub>2</sub> emissions because about 70% of the emissions in our entire value chain are generated during use of products after sale</li> <li>We have formulated BCPs in anticipation of natural disasters caused by abnormal weather and other factors, and are working with our suppliers to implement measures to ensure that business operations can be maintained. We have conducted analysis of the risk of natural disasters at our key manufacturing sites in Japan, and confirmed such risks to be low</li> </ul>
Metrics and Targets	<ul> <li>We are pursuing E-COMPASS initiatives<sup>3</sup> to help develop a data-driven society and preserve the global environment across the entire supply chain</li> <li>With our semiconductor production equipment technology, we are contributing to enhancing the performance and lowering the power consumption of semiconductor devices being used around the world</li> <li>We are delivering achievements in both process performance and environmental performance for semiconductor production equipment</li> <li>We are reducing CO<sub>2</sub> emissions in all of our business activities<sup>4</sup></li> <li>Initiatives for our medium- to long-term environmental goals<sup>5</sup></li> <li>Moved Scope 3 net zero goals ahead of schedule to 2040 based on the world situation and market trends</li> <li>Considering offsetting carbon credit certificates for emissions which are difficult to reduce in terms of net zero goals</li> <li>Disclosures concerning IFRS GHG emissions<sup>4</sup></li> </ul>

IFRS S2: International Financial Reporting Standards (IFRS) Sustainability Standards of Disclosure S2 Climate-related disclosures

TCFD" on our website www.tel.com/sustainability/management-foundation/environment/index.html

Risk Management P. 75-76 3 E-COMPASS P. 52

Environmental Goals and Progress" on our website www.tel.com/sustainability/management-foundation/environment/index.html

Environmental Goals and Progress P. 54

#### Anticipated Risks and Opportunities of Climate Change Impact and Our Response

Timeline: Short-term = five years or less; medium-term = 2030; long-term = 2050 Scenarios used: 1.5°C scenario (1.5°C temperature increase), 4°C scenario (4°C temperature increase) Scope: The entire Group as well as the entire value chain including upstream and downstream

	Risk or	Timeline of	Anticipated Risks or Oppor-		Impact	e entire value chain including upstream and downstream
Type (Scenario)	Opportunity Items	Manifestation	tunities	Impact on Tokyo Electron	Evaluation	Our Response
Transition Risks (1.5°C scenario)	• Carbon tax <sup>2</sup> and increased energy costs	Short- to medium- term	It has been projected that the following levels of carbon tax will be levied: Fiscal 2026: Approx. 10,875 yen/t-CO2 Fiscal 2041: Approx. 29,725 yen/t-CO2 Soaring electricity/ fuel costs	Assuming that our greenhouse gas (GHG) emissions and renewable energy usage levels remained at the levels of fiscal 2024, the carbon tax burden would rise as follows: Fiscal 2026: Increase of 0.5 billion yen/year Fiscal 2041: Increase of 1.2 billion yen/year     Increased transportation costs     Increased procurement costs (energy costs would be passed on to suppliers)	Low	• Promote energy-saving and adopt renewable energy at plants and offices in order to achieve the medium-term environmental goals. Achieved 100% renewable energy usage at all plants and offices in Japan (90% globally) by fiscal 2024. Furthermore, the increased burden due to the introduction of a carbon tax calculated based on the level for fiscal 2024 will be reduced by 1.1 billion yen for fiscal 2026 and 3.1 billion yen for fiscal 20126 and 3.1 billion yen for fiscal 2021. The risk evaluation has been changed from "Low~Middle" to "Low"
	Responses to environmental challenges including climate change and environment- related laws and regulations	Short- to long-term	Poorer evaluations among customers, investors, nongovernmental organizations (NGOs) and local communities Delays in our responses to need to meet customers' requirements and demands and energy-related regulations	Increased reputational risks Increased costs of capital investment/ R&D expenses Decreased net sales Legal proceedings and fines if regulations are violated	Low~ High	Develop activities to achieve medium- to long-term environmental goals through E-COMPASS activities in the supply chain     (1) Develop semiconductor production equipment technology that contributes to enhanced performance of semiconductor devices and lower power consumption     (2) Achieving both the process performance and environmental performance of equipment (development of technology to achieve reduction of CO <sub>2</sub> emissions per wafer during the use of our products, etc.)     (3) Reducing CO <sub>2</sub> emissions in all business activities (promotion to save energy in the supply chain and adoption of renewable energy, etc.)     Respond appropriately and promptly to environmental laws and regulations revised in each country     Conducting risk management, leveraging TCFD framework and our support for the TCFD     Promote disclosure of information on the above activities through integrated reports, our websites, etc.
Physical Risks (4°C scenario)	Abnormal weather	Short- to medium- term	• Impacts on us, our customers and suppliers (supply chain disruptions, production/shipping delays, operation stoppages and other factors)	<ul> <li>Increased procurement costs</li> <li>Decreased net sales</li> <li>Increased insurance premiums</li> </ul>	High	Pursue the updating of our business continuity planning (BCP) based on future planning within our business continuity management (BCM), and carry out periodical BCP drills in line with the plans Implementation of risk response through suppliers' BCP assessments <sup>3</sup> . Survey and evaluate risks and confirm the level of response to flood/landslides based on hazard maps of floods/landslides for suppliers as part of our surveying processes, and undertake follow-up of responses to such risks when necessary Set out standards for a company-wide response to storm/flood damage (heavy rain, typhoons etc.), while implementing online training for all employees on responding to storm/flood damage in fiscal 2024 Maintain a database of suppliers' production sites to promptly identify impacted suppliers and quickly collaborate in recovery efforts Enroll in insurance in preparation for disasters resulting from abnormal weather
	Higher temperatures Medium- to long-term		Increased usage of air conditioning and chillers in clean rooms and others with rising temperatures	• Increased energy costs	Low	Develop activities to achieve medium- to long-
Opportunities (Common)	Improved operational efficiency relating to the environment	Short- to medium- term	Higher productivity	Reduced energy costs	High	term environmental goals through E-COMPASS activities in the supply chain (Refer to (1), (2) and (3) above for contents)  • Generate innovations in environmental technology when responding to climate change,
	Initiatives that aim to respond proactively to climate change and generation of added value to products and services through technological innovation		<ul> <li>Promote innovation toward development of low-GHG products and services, and accelerate efforts by creating new value, such as by developing equipment and technologies that contribute toward the manufacture of lower power consumption devices</li> </ul>	• Increased net sales	Middle ~High	and to environmental regulations across the supply chain Globally promote the latest in research and development to continually supply the Best Products with innovative technology in a timely manner The development of etch technology for next-generation and beyond 3D NAND to realize an 84% reduction in the global warming potential and the development of debonding technology
	Building resilience in our global operations		<ul> <li>Establish competitive superiority and business opportunities, by creating new value, including the development of equipment and technologies that contribute toward the manufacture of lower power consumption devices</li> </ul>			that does not require grinding upon wafer bonding, which contribute to a large reduction of deionized water consumption and reduction of CO <sub>2</sub> upon wafer procurement

<sup>1</sup> Impact evaluation: Sets out the findings of evaluations of the impact of risks or opportunities within Tokyo Electron.

<sup>2</sup> Carbon tax: We referred to the International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario for the increase in tax associated with GHG emissions. 1 U.S. dollar was converted as 145 yen.

<sup>3</sup> Suppliers' BCP assessments: Surveys have been conducted since fiscal 2014 for suppliers accounting for more than 80% of our procurement spend (more than 85% of our procurement spend from fiscal 2023).

#### **Biodiversity and Forest Conservation**

In fiscal 2023, we formulated commitments to biodiversity and forest conservation. In fiscal 2024, in affirmation of the philosophy of the Taskforce on Nature-related Financial Disclosures (TNFD), we joined the TNFD Forum, which supports the TNFD's efforts. Furthermore, based on our fundamental understanding of the TNFD as a whole and the LEAP approach advocated by the TNFD, we identified high priority areas and organized information about their status. We also conducted interviews with suppliers to confirm the status of their TNFD support and their awareness regarding it.

In order to become more nature-positive<sup>2</sup>, we are investigating the impact that our business activities have on nature and the risks posed to our business by the loss of nature, and we are striving to disclose information appropriately. We will collaborate with our stakeholders in initiatives related to natural capital and biodiversity across our entire value chain.

- 1 LEAP approach: Locate, Evaluate, Assess and Prepare approach
- "Environment" on our website | www.tel.com/sustainability/management
- 2 Nature-positive: Stopping and reversing harm to biodiversity in order to put nature back on a recovery course

#### Initiatives to Reduce Waste

To reduce waste, we are striving to curb the amount of waste we generate and to recycle waste. In addition to using an electronic manifest system<sup>1</sup> to properly manage waste, we are confirming statistical data regarding waste and performing on-site equipment confirmation to assess waste production trends and their causes. We are identifying buildings, processes and equipment which generate particularly large amounts of waste and implementing measures to reduce the waste they generate. These measures include separating waste and adding new processes. Specifically, to raise recycling rates and cut the amount of waste, we are thoroughly separating waste, thoroughly preventing the wasting of resources, rationalizing parts inventories, using reusable boxes for deliveries, reusing cushioning material and contracting with waste operators capable of performing recycling. Through these efforts we are reducing the

amount of waste that is sent to landfills or incinerated without recovering energy. We are also renovating our waste storage sites to increase their capacity while reducing the frequency of collection. Through this, we are striving to not only cut waste processing costs but also to reduce environmental impact.

Through these efforts, in fiscal 2024 we produced 234 tons of waste to be incinerated without recovering energy or buried in a landfill and achieved a recycling rate<sup>2</sup> of 98.8%. This marked the 18th consecutive year, starting in fiscal 2007, that we have met our target of a recycling rate of 97% or above. We also maintained a high recycling rate at our overseas sites of 92.9%.

- 1 Electronic manifest system: A system in which, instead of using printed manifests to manage industrial waste, the flow of industrial waste products is managed through a communications network that connects information processing centers, waste generating enterprises, waste collection enterprises and waste disposal enterprises
- 2 Recycling rate: (Recycled amount/Amount of waste generated)  $\times$  100

# Safety

#### Approach to Safety

Under the "Safety First" slogan, everyone at Tokyo Electron, from top management to field representative, is actively and continuously improving safety, giving safety the highest priority when carrying out all kinds of operations such as development,

manufacturing, logistics, installation and maintenance.



### TEL Incident Reporting System (TIRS)

In the event of an incident, we quickly share information with all the people concerned in the Group involved in safety including management, confirm the incident response by operating TIRS and relevant departments lead the implementation of measures to prevent reoccurrence and to check effectiveness.

#### **Product Safety Design**

Taking the entire product life cycle into consideration, we carry out product risk assessments as early as possible in the development phase. We implement inherently safe design to reduce the risks posed to humans by incorporating the assessment results in the design. We conduct global surveys of increasingly strict laws and regulations and conduct compliance checks through third-party assessment bodies to ensure conformity with international safety standards and SEMI

Standards<sup>2</sup> on the product we ship. We have also established a system to comply with safety regulations of the regions where our product is delivered while working with overseas subsidiaries.

- 1 Inherently safe design: A design concept that eliminates the cause of the machine's harm to humans through the safety design of the machine
- 2 SEMI Standards: SEMI Standards are regulations formed by SEMI, an international industry body which serves manufacturers of semiconductor production equipment, flat panel display production equipment, materials and the like, to unify all of these international industrial standards.

#### Safety Training

To help increase employees' awareness concerning safety and to create a safe workplace, we developed two main training programs (safety foundation training and safety technical training) to be used worldwide, with target employees required to undergo this training.

The aim of safety foundation training is for all employees to learn the basics of safety to enable them to carry out operations safely in the workplace. We carry out introductory training for new hires, and are working to improve employees' retention of safety awareness by providing refresher training once every three years.

In the second year after entry into the Group, we conduct safety foundation training for employees in their second year with the aim of supplementing safety foundation training. Based on safety foundation training, the training focuses on preventing accidents due to falling and lower back pain due to lifting heavy objects, which are areas in which a particularly high number of accidents occur. Combined with the implementation of hazard prediction training, we work to improve our sensitivity to safety.

Safety technical training is a more specialized type of program aimed at engineers who work on production lines and in cleanrooms and is provided in the form of refresher training each year. In addition, we provide training on safety rules, laws and regulations in various countries for overseas transferees.

As a result of these ongoing initiatives in relation to reinforcing safety training and product safety design, our TCIR\* reached 0.15 in fiscal 2024, which is top class in the semiconductor production equipment industry. We will make further efforts toward achieving the target in our Medium-term Management Plan of 0.10 or less.



\* TCIR: Total Case Incident Rate. The number of workplace incidents per 200,000 work hours.

#### **Incident Prevention Initiatives**

We deploy the activities below with the aim of creating a safer work environment.

#### Comprehensive Safety Inspections

We carry out regular safety inspections of the entire Group based on the safety inspection items that we have prepared relating to the various services and equipment installation work carried out at customers' onsite operations, work on our own production sites and the internal management of our equipment.

By revealing issues in work safety, training methods, safety management methods for equipment and the like, these regular inspections assist each Group company with their voluntary activities for maintaining and improving their safety environments

#### Feedback on Safety Specifications

If changes relating to safety specifications are requested by customers, or if an incident occurs as a result of equipment design, we provide the information to the Production Design Department as feedback as quickly as possible and work to improve the organizational structures that will move forward with the necessary discussions.

#### Safety Activities for Suppliers

When we ask our suppliers to carry out work, we work to promote safety activities with our suppliers upon sharing written material that set out things such as our basic work safety rules and customers' rules in advance and gaining their understanding.

# Quality

#### Efforts for Quality Improvement

In order for each employee to correctly understand and practice quality assurance activities, it is important to clearly define the goals to be achieved, and to create an environment and foster a culture in which those goals are widely understood. From the ideal form, we established "Our Approach to Quality" and "Quality Policy" and communicate the importance of quality to our employees to increase their quality awareness. Furthermore, we review regulations and basic education on quality as appropriate and implement the most recent contents. Also,

through making quality information visible, employees constantly acknowledge their own roles and goals, and by encouraging the implementation of proactive quality activities in work, we strive to bolster the prevention of product quality issues. Employees confirm each other's quality in various situations thoroughly, leading to improvement and growth of business processes. We strive to provide high quality products and services that exceed customer expectations.

#### Approach to Quality

We define our approach to quality as follows.

"The Tokyo Electron Group seeks to provide the highestquality products and services. This pursuit of quality begins at development and continues through all manufacturing, installation, maintenance, sales and support processes. Our employees must work to deliver quality products, quality services and innovative solutions that enable customer success."

In addition, we established the Quality Policy as follows, and are striving to practice this policy.

#### **Quality Policy**

#### 1. Quality Focus

Focusing on quality to satisfy customers, meet production schedules and reduce required maintenance even with temporary cost increases.

#### 2. Quality Design and Assurance

Building quality into products and assure in-process quality control, from the design and development phase throughout every process.

#### 3. Ouality and Trust

When a quality-related problem occurs, working as a team to perform thorough root cause analyses and resolve problems as quickly as possible.

#### 4. Continual Improvement

Ensuring customer satisfaction and trust by establishing quality goals and performance indicators and by implementing continual improvement using the PDCA cycle.

#### 5. Stakeholder Communication

Listening to stakeholder expectations, providing timely product quality information and making adjustments as needed.

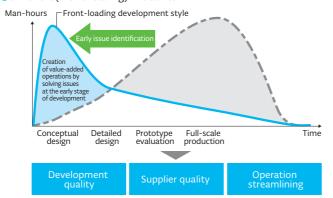
We have established regulations based on our companywide quality policy compiled in the TEL Manual (TM) and the TEL Guidelines (TG) for each major business category, such as development, design, manufacturing and service, and we are using these regulations in the entire Group including manufacturing sites, and in our suppliers.

Furthermore, each manufacturing site builds a quality management system based on the TM and the TG. In addition to attaining ISO 9001: 2015, the international standard for quality management systems, we are striving for continuous improvement by efficiently operating the PDCA cycle through repeated internal audits and third-party organization audits at each of our manufacturing sites. The Quality Assurance Division, centered in the headquarters, sets quality goals every year based on the results of the previous term, and regularly reviews the progress of achievement of those goals.

In addition, by implementing self-process assurance, we conduct strict quality-related risk management and development/design inspections from the development stage, and strive to thoroughly verify customers' operations using simulations. Through these activities of self-process assurance, we work to improve the accuracy of each process and reduce the reworking costs<sup>2</sup>, and we enable employees to create time to focus on high-value-added work in the upstream processes while also practicing "Shift Left" (front-loading).

- Self-process assurance: Comprehensive measures that prevent non-conformance in each process and prevent such products from passing through to subsequent processes
- Reworking costs: Costs incurred by going up the chain of processes and reworking when there is

#### Shift Left (Front-loading) Initiatives



# Supply Chain Management

#### Principles and System of Supply Chain Management

To build a supply chain that is sound and sustainable, Tokyo Electron has formulated a procurement policy based on the laws, regulations and social norms of each country, as well as the RBA Code of Conduct, and together with its suppliers, is implementing activities based on this policy.

We work to build relationships of trust with our suppliers, including materials suppliers that handle parts and raw materials, staffing suppliers that provide services and logistics suppliers that handle physical distribution operations,

who support our business as partners. Through ongoing communication with our suppliers, we identify issues in the supply chain from a variety of perspectives, such as labor, health and safety, the environment and ethics. These issues are shared among the relevant departments which then work on improvement measures, under the supervision of the CEO. We will continue to strive to create value across the supply chain by working with our suppliers to deploy our operations in compliance with global standards.

#### Initiatives in the Supply Chain

#### Sustainability Operations

In accordance with RBA auditing standards, our company has conducted an annual sustainability assessment on suppliers involved in materials, staffing, logistics\* etc. in areas such as labor, health and safety, the environment and ethics since fiscal 2014. In fiscal 2024, we held a briefing for our suppliers about the sustainability assessment where we explained the results of the most recent assessment, remediation points for each item and also requested that remediation activities be made. Furthermore, we request remediation activities individually for suppliers who had discrepancies in recruitment fees, leading to improvements. To ensure that all people in our supply chain can work of their own free will, we have expressly stipulated our zero-tolerance policy for forced labor and bonded labor, and have communicated this to our major suppliers.

In addition to conducting such assessments, we will work together with suppliers to further ensure compliance with the RBA Code of Conduct by carrying out RBA audits in the future in our major manufacturing sites in Japan and overseas.

\* Materials suppliers: Assessments have been conducted for suppliers accounting for more than 80% of our nent spend (85% from fiscal 2023), staffing suppliers: Assessments have been conducted since fiscal 2019 on 100% of employment agencies and contracting companies (internal contractors), logistics suppliers: Assessments have been conducted since fiscal 2019 on 100% of customs-related operators

#### Responsible Procurement of Minerals

We see taking action against conflict minerals obtained through illegal exploitation, which lead to human rights violations and poor working conditions, as our corporate social responsibility. Our resolute goal is to eliminate the use of raw materials made from these conflict minerals, as well as any parts or components containing them. In alignment with this way of thinking, we conduct a responsible mineral procurement survey in accordance



with the OECD<sup>1</sup> Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. In fiscal 2024, we conducted our tenth annual survey on potential conflict minerals using the CMRT<sup>2</sup> with 3TG<sup>3</sup> as out target mineral. As a result, we were able to identify 238 smelters conformant with RMAP4 (one of the standards used for determining that minerals are not connected with conflict). In addition, none of the materials we procured were found to contain 3TG involved in conflict. We shared the results of the survey with our suppliers and implemented due diligence activities such as adding cobalt to the target minerals from fiscal 2025.

- 1 OECD: Organisation for Economic Co-operation and Development
- 2 CMRT: Conflict Minerals Reporting Template. Survey format for reporting on conflict minerals provided by the Responsible Minerals Initiative (RMI) established in accordance with international guidelines on conflict minerals
- 3 3TG: Tantalum, tin, tungsten and gold
- 4 RMAP: Responsible Minerals Assurance Process. A program promoted and led by the RMI for auditing smelters/refiners to validate that they do not use conflict minerals

#### Procurement BCP

As part of our business continuity plans, we collaborate with suppliers on ongoing disaster preparation. To appropriately grasp the increasingly complex supply chain, while making it visible with the use of IT systems, we maintain a database of suppliers' production sites so that if a crisis arises, we can promptly identify impacted suppliers and quickly collaborate in recovery efforts. There are now approximately 32,000 registered production sites as of fiscal 2024, and post-disaster impact assessments (conducted when disasters occur) have been implemented three times. In addition, we conduct BCP assessments on our suppliers and analyze their responses to provide them with feedback to promote improvements in areas of concern.

Supply Chain Sustainability Process



# Continuous Improvement of Business Operations and Creation of New Values

#### Initiatives of Digital Transformation (DX)

Based on the idea that DX initiatives are a means and an opportunity to achieve our management vision and management plan, and to create corporate value, in January 2021, we formulated the TEL DX Vision and the TEL DX Grand Design. Through digital technologies, we will promote product transformation and business transformation\* to accelerate and

strengthen business activities associated with important material management issues.

Product transformation: Contributing to customer value creation in a variety of situations, from development to mass production, Business transformation: Improving capital efficiency in a variety of situations, from the product planning stage to maintenance.

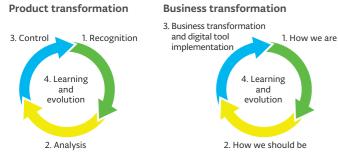
#### TEL DX Grand Design



In product transformation, we will solve high-level issues while repeating the processes of (1) Recognition (sensing and monitoring), (2) Analysis and prediction, (3) Control and (4) Learning and evolution (autonomous), while aiming to improve customer value.

In addition, in business transformation, we will grasp the current state of internal business while envisioning how work should be, and change our work processes by using digital tools, to improve our capital efficiency. We are also promoting the use of digital technology in our management foundation and business support departments, which are necessary to realize these transform initiatives.

Digital Technology-based Product Transformation and Business Transformation



To develop DX human resources, we define the human resources necessary for promoting DX (DX engineers), and formulate a training plan to acquire skills. We also create a data platform and data governance, and work to cultivate a digital culture, so that not just DX engineers, but all employees can utilize data in their daily operations. Specifically, this means that we invite outside DX and AI experts to give presentations and hold various digital-related events internally.

To enable our DX initiatives to lead to the creation of corporate value, we opened the TEL Digital Design Square in Sapporo in November 2020 as the home base for out DX activities. We are also developing leading-edge software technologies needed for semiconductor production and leading-edge digital technologies such as generative AI.

In May 2023, our headquarters was also recognized as a DX-certified business operator under the Digital Transformation Certification initiative established by the Ministry of Economy, Trade and Industry.

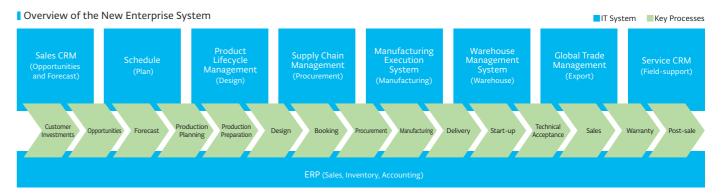


#### Continuous Improvement of Business Operations

We are implementing a new enterprise system (ERP\*) to further improve productivity and quality. The purpose of the system is to (1) significantly improve operational efficiency, (2) make management decisions that respond quickly to changes and (3) create new value by utilizing globally integrated information with an eye toward overall digital transformation.

In addition to the headquarters, where the system has already been implemented, we first completed the implementation of this system at overseas subsidiaries and manufacturing sites in Japan in fiscal 2024. Going forward, we will make maximum use of the knowledge we have gained through the process so far, and will proceed with the implementation of the system to subsequent sites. In addition, we will work with our partner companies to realize a globally integrated system by developing functions and others to improve operational efficiency and further enhance system performance.

 ERP: Enterprise Resource Planning. A system that integrates the core business operations of an enterprise, such as accounting, personnel, production, logistics and sales, for better efficiency and centralized information.



# Intellectual Property Management

We are promoting intellectual property (IP) management under the fundamental tenet of contributing to an increase of corporate profits by supporting our business activities through IP protection and its utilization.

To achieve sustainable growth in the semiconductor industry where the growth is driven by technological innovation, we are globally expanding our R&D activity including industry-academia collaborations. Our IP department collaborates with R&D departments and business departments at each of our R&D and production sites, and with the marketing department at headquarters. The aim is to provide appropriate protection for innovations created based on development seeds and market needs, and to build an IP portfolio that is compatible with our R&D strategy and its Shift Left focus.

In 2023, the number of inventions created in Japan was 1,186 and 303 overseas. We have maintained the global patent application rate approximately 75% for 5 consecutive years, and the allowance rate\* of the filed patents has reached 81% in Japan and 80% in the United States. Furthermore, various inventions have been created through collaboration with domestic and overseas business partners, consortium and academia, and we have jointly filed patent applications on 61 inventions in the past three years.

Consequently, the number of active issued patents as of March 31, 2024 is 23,249, which is the largest number in the semiconductor production equipment industry, and we are building our competitive edge in the intellectual property field on a global level.

Our patent portfolio has also been rated highly for aspects such as impact on other companies and improved technological value over recent years. As in 2023, we have again been selected in the Clarivate Top 100 Global Innovators 2024 and the LexisNexis Innovation Momentum 2024: The Global Top 100.

Top 100
Global
Innovator
2024

We consider IP to be an important asset

for improving medium- to long-term corporate value. We will therefore continue striving to improve the competitiveness of our products through differentiation of our technologies by building a competitive IP portfolio in terms of both quantity and quality.

\* Figures calculated in 2023

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# Corporate Governance

#### **Basic Stance**

To achieve success in global competition and realize sustainable growth, we believe it is important to build corporate governance system that support this. To that end, we have built a structure which utilizes to the maximum the worldwide resources we possess and have worked to incorporate a wide range of opinions to strengthen our management foundation and technology base,

establishing a governance structure capable of ensuring that we attain global-level earnings power. We have established the Corporate Governance Guidelines\* and outlined the corporate governance structures that we have developed and reinforced to date, in advance of other companies.

\* Corporate Governance" on our website www.tel.com/about/cg/

### **Hybrid Governance Structure**

We have enhanced the independence of the Board of Directors and strengthened its supervisory function by having outside directors make up the majority of the board, while ensuring an auditing function by the Audit & Supervisory Board, which is independent of the Board of Directors. We have also established a Nomination Committee and a Compensation Committee, both of which are chaired by outside directors, and in which outside directors make

up the majority of each. Furthermore, we have also introduced a Corporate Officer system, and through the appropriate delegation of authority, we are working to establish a strong execution system with quick decision-making and agile business execution. In this way, we have established an effective, hybrid type of governance system that utilizes the advantages of the Audit & Supervisory Board system and also incorporates elements of the Company with Three Committees.

#### Characteristics of Our Corporate Governance

#### A Board of Directors that is Independent and Diverse

- Majority of outside directors (4 outside directors, 3 inside directors)
- Two of the seven directors are womenOutside directors make up majorities in the
- Outside directors make up majorities in the Nomination Committee and Compensation Committee, including their respective chairpersons

# Strengthening the Functions of the Executive Side

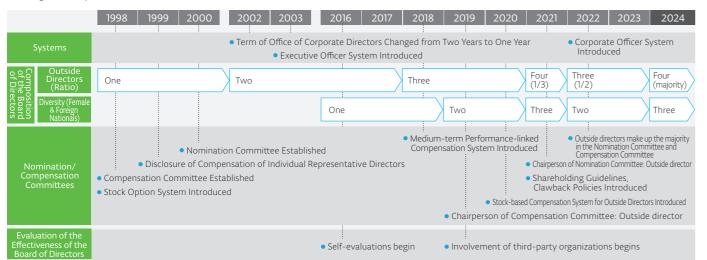
- Introduction of a Corporate Officer system with corporate officers as the highest-level officers on the executive side of the Group
- Establishment of the Corporate Officers
  Meeting as the highest decision-making
  body on the executive side of the Group, and
  delegation of authority from the Board of
  Directors to the executive side

#### Advanced Initiatives Taken Ahead of Other Companies

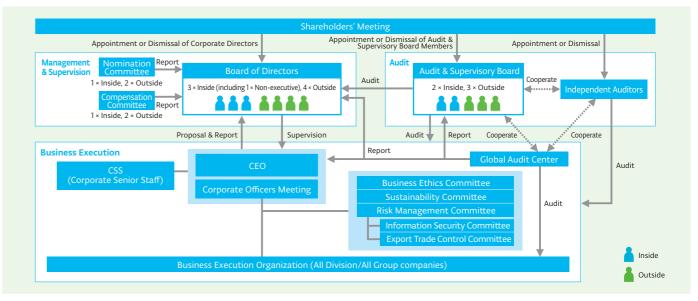
- Introduction of stock-based compensation system for outside directors
- Introduction of Shareholding Guidelines<sup>1</sup> for corporate directors, corporate officers and executive officers and Clawback Policies<sup>2</sup> for executive directors and corporate officers
- Introduced for the purpose of better ensuring continuous improvements to corporate value, and definitive sharing of profits with stakeholders (effective as of July 1, 2021; revised on April 30, 2024 for CEO and for inside directors and corporate officers). We have set goals to, after these Guidelines are revised or within five years of inauguration, retain TEL shares equivalent to the values described below.

  <CEO> 6 × fixed basic compensation (annual amount), <Inside Directors, Corporate Officers> 1 × fixed basic compensation (annual amount).
- Effective as of July 1, 2021. Demands the return of performance-linked compensation if major corrections of financial figures are deemed necessary due to intentional misconduct of Executive Directors and Corporate Officers. The compensation that will be subject to return will be the excess portion of performance-linked compensation received during the fiscal year in which the misconduct was discovered, as well as such compensation received during the preceding three fiscal years.

#### Changes in Corporate Governance (Since CY1998)



#### Corporate Governance Framework



\* Purpose of Committees on the Executive Si

Business Ethics Committee (Twice annually): Verifies the status of practice in accordance with the Code of Ethics; proposes and supports training and educational programs relating to business ethics; confirms compliance promotion activities

Sustainability Committee (Twice annually): Considers and formulates sustainability-related policies; sets and manages sustainability goals; implements company-wide projects (the environment, human rights, RBA, etc.) Risk Management Committee (Twice annually): Performs and shares information on company-wide risk management; establishes systems and mechanisms to investigate and counter risk scenarios for individual risk items in collaboration with risk owners

Information Security Committee (Twice annually): Spreads awareness of information security strategies and policies; shares the current status of information security plans, etc. Export Trade Control Committee (Annually): Promotes export compliance activities

Export flade control committee (Almaany). Fromotes export compilance activities

#### Main Topics for the Board of Directors and Off-site Meetings

CEO	Reports on status of business execution by CEO (each meeting)     Sharing of CEO missions
Medium- to Long-term Growth Strategies	Market environments over the medium to long term and our growth plans     Medium-term Management Plan and beyond growth strategies     Financial strategies, capital policy, human resource strategies     Expansion and reinforcement of development and production facilities in Japan and overseas     Business innovation projects     Production Innovation, Proactive procurement strategies     Strengthen the frontline
Sustainability	Review of material issues Initiatives for environment and net zero Initiatives for DE&I Investment in human capital and intellectual property

Risk/ Compliance	Risk management     Legal affairs and compliance     Information security     Geopolitical risks
Corporate Governance	Reports on internal audits Status of investment targets and cross-shareholdings Status of IR activities Status of the activities of the Nomination Committee and Compensation Committee Status of progress of successor development plan Confirmation of progress on issues in evaluation of the effectiveness of the Board of Directors Review of Corporate Officer system Closed session on evaluation of representative directors (members of the Board of Directors excluding the representative directors)

#### CSS (Corporate Senior Staff)

For the purpose of fostering common understanding of management strategies throughout the Group and promoting strategy execution efficiently and forcefully by managing the progress on management plans and reviewing additional measures from a global, cross-organizational perspective and a medium- to long-term management perspective, without being encumbered by short-term perspectives of each area of responsibility, we have established Corporate Senior Staff (CSS), consisting of our executive officers and senior management of overseas subsidiaries. CSS members meet four times a year.



Meeting held in Taiwan in March 2024

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#### Corporate Officer System

As a leading company in the semiconductor production equipment industry, we introduced our unique Corporate Officer system in June 2022 to further strengthen governance and implement quick decision-making and agile business execution. Corporate officers are the highest-level officers on the executive side within the Group and are responsible for the management of the entire Group, taking the same perspective as the CEO. In addition, corporate officers attend Board of Directors meetings, where they give briefings on business execution. This is beneficial for the Board of Directors to properly supervise the executive side and for discussions at Board of Directors meetings to be put to use appropriately and speedily in business execution, and also contributes to the promotion of proactive management.

We have also established the Corporate Officers Meeting as the highest decision-making body on the executive side.

Sessions of the Corporate Officers Meeting are held once a month as a basic principle, with inside directors and inside Audit & Supervisory Board members (who are not corporate officers) taking part in addition to the corporate officers. The meetings contribute to the realization of agile business execution by quickly deliberating and making decisions on key items on the executive side, including those items for which authority has been delegated from the Board of Directors to the executive side.

Furthermore, effective July 2024, we have renamed the position of division general managers (the head of each divisional organization) and established the position of division officer. Division officers are responsible for the global operations of their respective divisions and are in charge of developing and executing effective strategies and promoting "offense × offense governance," including risk management.

Highest position on the executive side within the Group	Has responsibility for execution of the entire company's management, taking the same perspective as the CEO
Members of the Corporate Officers Meeting	Realizes agile business execution by quickly deliberating and making decisions on key items on the executive side
Attendance at Board of Directors meetings (without voting rights)	Utilizes discussions at Board of Directors meetings appropriately and speedily for business execution

### Corporate Officer's Message



Tatsuya Nagakubo Corporate Officer Executive Vice President & General Manager

#### 1 Effect of Introducing the Corporate Officer System

The Corporate Officer system has become an established structure that has gained in significance within the Company. Each corporate officer is now even more aware of their role of taking the same perspective as the CEO, and as such they are engaging actively from a broader perspective at meetings of the Board of Directors. The Corporate Officers Meeting, which functions as the highest decision-making body on the executive side, also conducts timely and lively discussions on various topics, including matters for which authority has been delegated by the Board of Directors. I feel that this body has evolved over the two years since the system was introduced. Items discussed at the Corporate Officers Meeting are also shared with the Board of Directors which plays a role in supervision of the Board's business execution as well.

#### 2 Challenges for the Future

We recognize that there is an urgent need to recruit and develop successors for each corporate officer position to ensure we can strongly promote important matters aimed at medium- to long-term growth strategy and corporate value enhancement. Our corporate officers are all spending time discussing this subject and they are making steady progress in developing succession plans. In this way, corporate officers who share the same perspective as the CEO will be able to focus on higher-level management issues.

#### Establishment of the Director Compensation System

#### Basic Policy on Director Compensation

Our Group emphasizes the following points in its basic policies on compensation for corporate directors and Audit & Supervisory Board members.

- 1 Levels and plans for compensation to secure highly competent management personnel with global competitiveness
- 2 High linkage with business performance in the short term and mediumto long-term increase of corporate value aimed at sustainable growth
- **3** Securement of transparency and fairness in the decision process of compensation and appropriateness of compensation

#### Compensation Structure

Regarding compensation for inside directors, in fiscal 2024, the ratio of stock-based compensation in annual performance-linked compensation was increased, with a portion of it being made non-performance-linked compensation (stock-based compensation). As a result, compensation for inside directors consists of fixed basic compensation, annual performance-linked compensation, medium-term performance-linked compensation and non-performance-linked compensation (stockbased compensation). The following table sets out an overview of our policies and decision-making methods for each type of compensation.

Type of Compensation		Recipient			
		Inside Directors	Outside Directors	Audit & Supervisory Board Members	Overview of Compensation
Fixed Basic Compensation		0	0	0	<ul> <li>Monthly compensation is determined within the limit of total fixed basic compensation, which has been resolved at the Shareholders' Meeting</li> <li>For inside directors, amounts are determined according to the scale of job responsibilities by making reference to the job grade frameworks of an external expert organization (Willis Towers Watson)</li> </ul>
Annual Performance -linked	Cash Bonuses	0	_	_	Amount to be paid is linked to business performance in each fiscal year, with a view to motivating recipients to contribute to improving the business performance in each fiscal year Consisting of cash bonuses and stock compensation-based stock options The ratio of cash bonuses to stock compensation-based stock options of the annual performance-linked compensation and non-performance-linked compensation total is set roughly from 3:7 to 4:6, commensurate with job responsibility Specific amounts, number of stock options granted shall be commensurate with the Company's business performance and the results of individual performance evaluations in the relevant fiscal year For indicators of corporate business performance, net income attributable to owners of parent and consolidated ROE are adopted, and the result of the comparison with competitors in terms of operating
Compensation	Stock Compensation- based Stock Options	0	_	_	margin and operating margin growth ratio is reflected on the amount of payment  Individual performance evaluation items include contribution to short- and medium-term management strategy targets including ESG  Profit-sharing type compensation commensurate with business performance in each fiscal year is paid, therefore no policy is in place for the payout proportion of fixed basic compensation  Stock compensation-based stock options are subject to a three-year exercise restriction period from the granting of rights, with the aim of motivating recipients to share a sherholder perspective, while contributing to increasing corporate value over the medium- to long-term
Medium-term Performance -linked Compensation	Performance Share (Stock-based Compensation)	0	_	_	Paid to motivate recipients to contribute to medium-term business performance improvement If the payout rate is 100%, the payment amount is set at around 30% to 100% of the fixed basic compensation, commensurate with the scale of job responsibility The number of shares delivered is determined depending on the level of achievement of performance goals for the covered period (three fiscal years) Consolidated operating margin and consolidated ROE are adopted as performance indicators
Non- performance	Stock Compensation- based Stock Options	0	-	_	Paid to motivate recipients to contribute to medium- to long-term business performance improvement Payment amount is set to a range of two to three times the fixed basic compensation, commensurate with job responsibility Set a three-year exercise restriction period from the granting of rights with the aim of motivating recipients to share a shareholder perspective and increasing corporate value over the medium- to long-term
-linked Compensation	Restricted Stock Units (Stock-based Compensation)	_	0	_	The remuneration system is designed to be more consistent with the expected role of giving advice to the management from the perspective for increasing corporate value over the medium- to long-term  Payment amounts is set at around 50% to 60% of the fixed basic compensation to ensure an adequate balance between cash compensation and stock-based compensation  The Company shares shall be delivered after the expiration of the applicable period (three fiscal years)

# Changes Associated with the Introduction of Non-performance- ■ Composition of CEO Compensation linked Compensation (Stock-based Compensation) ■ Composition of Cash Bonuses and Stock Compensation -based Stock Options



Before change Medium-term Performance Medium-term Performance on-based Stock Op Annual Performance-linked Annual Performance-linked Compensation (Cash Bonus) Fixed Basic Compensation Fixed Basic Compensation

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

#### Overview of Evaluations of Effectiveness

To further enhance our governance and the effectiveness of the Board of Directors, we have conducted annual evaluations of the effectiveness of the Board since fiscal 2016 and have disclosed summaries of the results.

#### Evaluation of the Effectiveness of the Board of Directors for Fiscal 2024

#### Scope of Evaluation

Board of Directors overall (including details of the activities of the Nomination Committee and Compensation Committee)

#### Process

In light of the results of analysis by external experts based on questionnaires and individual interviews, we conducted a self-evaluation following extensive discussion at meetings of the Board of Directors and at meetings for the exchange of opinions by outside directors and outside Audit & Supervisory Board members.

#### Evaluation Items

The main evaluation items for evaluating effectiveness are as follows.

- Overall evaluation
- Composition of the Board of Directors
- Preparation in advance of Board of Directors
- Board of Directors operations
   Deliberations by the Board of Directors
- Roles and operational status of the Nomination Committee and
   Commensation Committee
- Roles of Audit & Supervisory Board members
- Corporate Officer system

#### State of Response to Issues in the Previous Fiscal Year's Effectiveness Evaluation

Issues	State of Responses
Aiming to become the top company globally in the medium- to long-term we will continue to work on each of the following matters to further strengthen the supervisory function of the Board of Directors and the management and execution functions of the executive side and will further enhance its effectiveness by regularly reviewing its progress	The corporate organizational structure was discussed at an off-site meeting, and the current policy of continuing with the Audit & Supervisory Board model was confirmed Progress and issues related to each item were discussed at a Board of Directors meeting and at an off-site meeting
The Company will systematically set agendas in line with medium- to long-term strategies and issues for growth, and will enhance discussions from a long-term perspective	A list of annual agenda items was presented Illinois related to medium to long-term strategies were discussed at off-site meetings, there is still room for further deepening and concretizing efforts towards realization of our Vision
The Company will enhance the effectiveness of the Corporate Officers Meeting, the highest decision-making body on the executive side	<ul> <li>Efforts are being made to optimize decision-making processes, including reviews of meeting bodies</li> <li>The Board of Directors is provided with the explanatory materials and minutes of the Corporate Officers Meeting, and the content of deliberations is reported on periodically at the Board of Directors meetings</li> </ul>
The Company will conduct an analysis of the decision making of the Board of Directors, clarify the points of deliberation, and enhance opportunities for sharing information with outside directors and outside Audit & Supervisory Board members on occasions other than board meetings and off-site meetings	While continuous efforts are being made to improve the granularity of materials and information, there is room for further improvement to be addressed in order to reduce the time needed to explain things and to have a complete discussion     Free discussions were held between the Chairman of the Board of Directors, outside directors and outside Audit & Supervisory Board members, information exchange meetings were held regularly between the CEO, outside directors and outside Audit & Supervisory Board members, and factory tours were conducted in conjunction with off-site meetings

#### • Overview of Fiscal 2024 Evaluation Results

The Company's Board of Directors believes that the Board of Directors is very effectively ensuring that the key roles and obligations of the Board of Directors are being fulfilled, and that the Board, including the Nomination Committee and the Compensation Committee are functioning effectively.

The results of analysis and evaluation by external experts also confirmed that our Board of Directors operates effectively and engages in free and open-minded discussion, and that there has been a positive trend toward improvement with regard to issues raised in the previous fiscal year. In addition, it was pointed out that the Company has entered a stage where discussions at the Board of Directors should focus on the overarching perspective of being a "leading global company," and that as a prerequisite to that, the role expected of the Board of Directors is being looked into.

Based on the results of the external experts' analysis and evaluation, discussion at the Board of Directors will continue on the functions and roles that it should play in light of the Company's desired vision for sustainable growth, and the necessity to further strengthen its management and execution functions has been recognized.

#### Future Initiatives

In light of the results of this evaluation, the Company will engage in the initiatives below, and carry out periodic progress reviews to further increase efficacy in those areas.

#### Role and function of the Board of Directors

- Working backward from the future outlook for sustainable growth, the medium- to long-term perspective for the Company will be shared at the Board of Directors meetings and off-site meetings, and the functions and roles that the Board of Directors should play, and the state of its governance system will continually be discussed.
- From the perspective of increasing the Company's corporate value, the Board of Directors' agenda will continue to be set appropriately, while working to align its perspective on medium- to long-term growth strategies and further enhance strategy discussions.

# Further strengthening of operational systems and acceleration of succession planning

• The existing system of Corporate Officers that also serve as division managers will be revised and a Division Officer system will be newly introduced. As a result, the system will be that Corporate Officers who share the same perspective as the CEO will focus on higher-level management issues, while Division Officers, which are composed mainly of next-generation management personnel, will supervise business execution in each division.

# Messages from Newly Appointed Outside Directors and Outside Audit & Supervisory Board Member

It is an honor to join the Board of Directors of Tokyo Electron, a leader in the semiconductor production equipment industry. Tokyo Electron's Vision and TEL Values resonate very much with me and are principles and values that I can be proud of. I am fully committed to supporting the management team's growth strategy, technological innovation and value creation efforts. I will also endeavor to be constructive and proactive in my supervisory and advisory role as a director.

Global enterprises are facing unprecedented geopolitical risk, information security, industrial competition, activism and social responsibility challenges.

I have been involved in international finance for nearly 40 years, and as part of that experience, I have reflected on the macroeconomy, security, monetary and fiscal policy, and the political situation between the United States and Japan. I will fulfill my responsibilities as a director in good faith for the development of the Company and to meet the expectations of employees and all stakeholders.



Joseph A. Kraft Jr.
Newly appointed
Outside Director

Tokyo Electron embraces an important mission of driving technological innovation in semiconductors and supporting the sustainable development of society. I respect its corporate culture of effecting change by viewing it as an opportunity—a culture that has supported Tokyo Electron's innovation—and as a member of the Board of Directors, I will actively support taking on new challenges and sound risks.

In an environment of increasing uncertainty, I recognize that management requires increasingly diverse perspectives. In the past, I was in charge of brand business and DE&I in a completely different industry. Drawing on the different nature of my career, I hope to help reduce any blind spots in Tokyo Electron's vision and to contribute to the development of organizational capacity that supports innovation, that is, a corporate culture that leverages diversity.

To meet stakeholder expectations, I will strive to improve Tokyo Electron's management foundation and corporate value with a steady eye to the future through constructive discussions with fellow directors and the executive leadership team.



Yukari Suzuki
Newly appointed
Outside Director

I am honored to be appointed as an outside Audit & Supervisory Board member at Tokyo Electron, a company that continues to pioneer the frontier of the semiconductor industry. Since its founding as a trading company specializing in technology, Tokyo Electron has consistently worked with its customers to remain at the forefront of innovation, transforming and developing its business model while steering its way through many adversities to reach the position it holds today. I believe that Tokyo Electron's voracious frontier spirit and flexibility in thought—even after more than 60 years in business—is a distinctive quality of the Company and is the source of its competitiveness.

Having lived through a period of upheaval and change in the financial world—from rapid economic growth, to collapse of the bubble economy and financial difficulty, to reform of financial and capital markets, and responses to innovation in financial technology—I have keenly felt the importance and difficulty of maintaining a balance between the maintenance and improvement of entrepreneurial spirit and the establishment of effective governance.

Leveraging that experience, the lessons learned and my knowledge as a financial expert, I will do all I can to contribute to the realization of dynamic and effective corporate governance from a position of integrity and fairness, which in turn will contribute to sustainable growth and the enhancement of corporate value over the medium to long term.



Yutaka Endo
Newly appointed
Outside Audit & Supervisory
Board Member

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#### **Skills Matrix**

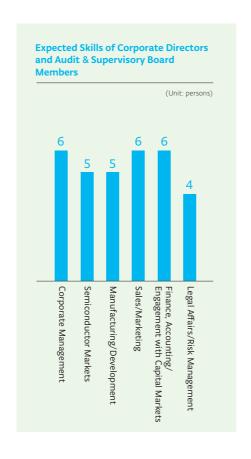
We will realize medium- to long-term profit expansion and continuous corporate value enhancement through each corporate director and Audit & Supervisory Board member, who

have demonstrated their skills in Global Business, Governance, Sustainability, and others listed below as determined by the Nomination Committee and the Board of Directors.

		Expected Skills							
Name			Corporate Management	Semiconductor Markets	Manufacturing/ Development	Sales/Marketing	Finance, Accounting/ Engagement with Capital Markets	Legal Affairs/Risk Management	
Corporate Directors	Toshiki Kawai	Re appointed			•	•	•		
	Sadao Sasaki	Re appointed		•	•	•	•		
	Yoshikazu Nunokawa	Re appointed			•	•	•	•	
	Michio Sasaki	Re appointed	Outside	•		•	•		
	Sachiko Ichikawa	Re appointed	Outside					•	•
	Joseph A. Kraft Jr.	Newly appointed	Outside					•	•
	Yukari Suzuki	Newly appointed	Outside	•			•		
Audit & Supervisory Board Members	Kazushi Tahara			•	•	•	•		
	Yutaka Nanasawa				•			•	
	Kyosuke Wagai		Outside					•	•
	Ryota Miura	Re appointed	Outside						•
	Yutaka Endo	Newly appointed	Outside	•				•	

#### Definition of Expected Skills and Reasons for Nomination

Corporate Management	Experience of corporate management (experience serving as a representative director or chairman/president) is necessary to fulfill the supervisory function of the Board of Directors and achieve "offense × offense" governance.
Semiconductor Markets	Knowledge of the semiconductor markets is necessary to further promote aggressive management in the semiconductor production equipment industry which is characterized by rapid technological innovation and dynamically changing market.
Manufacturing/ Development	Knowledge/experience in manufacturing and development at TEL and other manufacturers are necessary to strengthen research and development capabilities based on technological trends and customer needs, and to establish environmentally considerate and efficient manufacturing operations.
Sales/Marketing	Knowledge/experience in sales and marketing at TEL and other manufacturers are necessary to be the sole strategic partner for our customers and contribute to further value creation through proposing optimal solutions.
Finance, Accounting/ Engagement with Capital Markets	Knowledge in financial accounting and M&A, or knowledge/experience in engagement with capital markets are necessary to formulate and execute growth and financial strategies, improve capital efficiency, and further enhance shareholder value through shareholder returns.
Legal Affairs/Risk Management	Knowledge of legal affairs, compliance, and risk management is necessary to appropriately respond to increasingly complex and diverse risks throughout the Group as opportunities for business growth.



#### Directors, Audit & Supervisory Board Members and Corporate Officers (As of July 1, 2024)

#### Directors



**Toshiki Kawai**Representative Director
President & CEO
Corporate Officer



Sadao Sasaki
Representative Director
Senior Executive Vice President
Corporate Officer
Chairman & Representative
Director, Tokyo Electron
Technology Solutions Ltd.



Yoshikazu Nunokawa Corporate Director Chairman of the Board of Directors



Michio Sasaki
Outside Director
Director and Vice President,
SHIFT Inc.

Joseph A. Kraft Jr.

CEO, Rorschach Advisory Inc. Outside Director, Sony Group Corporation

Outside Director



Sachiko Ichikawa
Outside Director
Partner, Tanabe & Partners
Outside Director, OLYMPUS
CORPORATION
Outside Director, Azbil
Corporation
Director, The Board Director
Training Institute of Japan



Yukari Suzuki
Outside Director
Outside Director, SECOM
CO.,LTD.

Audit & Supervisory Board Members



**Kazushi Tahara** Audit & Supervisory Board Member



Yutaka Nanasawa Audit & Supervisory Board Member



Ryota Miura
Outside Audit & Supervisory
Board Member
Partner, Miura & Partners
Legal Profession Corporation
Outside Director (Audit &
Supervisory Committee
Member), TECHMATRIX
CORPORATION
Outside Director, Eisai Co., Ltd.



Yutaka Endo
Outside Audit & Supervisory
Board Member

#### Corporate Officers



Tatsuya Nagakubo



Seisu Ikeda



Yoshinobu Mitano



Takeshi Okubo



Keiichi Akiyama



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# Value Creation by the Value Chain

Roundtable with the Chairman and Outside Directors











Outside Director Nomination Committee Chairperson Compensation Committee Chairperson

# Sachiko Ichikawa

Outside Director Nomination Committee Member

#### Yoshikazu Nunokawa

Chairman of the Board of Directors

Nomination Committee Member Compensation Committee Member

## Ryota Miura

Outside Audit & Supervisory Board Member

### Kyosuke Wagai

Outside Audit & Supervisory Board Member

At Tokyo Electron, corporate governance is regarded as important for achieving success in global competition and realizing sustainable growth. The Chairman of the Board of Directors and outside directors discussed about the evaluation of initiatives for "offense  $\times$  offense and governance," the effectiveness of the Nomination Committee, and issues toward further corporate value enhancement.

# How would you rate "offense × offense governance"?

Nunokawa While many companies see governance as a defense and business strategies as offense, we are one step ahead and strategically implement governance aggressively. We call this approach "offense × offense governance" and are working to improve its effectiveness. In fiscal 2024, we undertook activities and generated results that sought to entrench awareness among the management and employees regarding safety, quality, compliance, Diversity, Equity and Inclusion (DE&I) and engagement with our employees and stakeholders. Endless improvement and structural enhancement are important for risk management, which includes information security. In particular, we convey Safety, Quality, and Compliance with emphasis within Tokyo Electron, and ensure thoroughness in confirmation and reporting. For example, we explain to all employees the significance of the target value of 0.10 or lower for the number of workplace incidents per 200,000 work hours (total case incident rate, or TCIR) and get their acceptance to spread understanding at our sites.

Regarding the entrenchment of awareness, communication from top management is undertaken repeatedly, such as through employee meetings that include overseas sites, management meetings, and Medium-term Management Plan progress meetings held every three months. Amid extremely rapid changes, the future issue would be to enhance our sensing capabilities for understanding the ever-changing situation—such as research that predicts changes in the external environment and the method of distributing weightage for key fields—to make correct decisions and create an organization that can flexibly respond according to the changes.

Wagai The mindsets of our employees form the basis for various measures to function. We should acknowledge the aggressive organization reforms being undertaken to agilely implement "offense × offense governance," including the establishment of a Corporate Officer system separate from the Board of Directors with clear functions for responsibility over execution; the organizational restructuring of corporate departments and establishment of new corporate departments; and the appointment of division officers.

Ichikawa We can highly rate the initiatives for "offense × offense governance." As security and compliance issues may occur in unexpected areas, we need an even more aggressive stance. We must take our responses one step further without remaining on the extension of current efforts and also actively respond to new issues.

Miura As an Audit & Supervisory Board Member, I collaborate daily with various parties relevant to the Group, including our independent auditor and legal, intellectual property and other departments. I think there is no issue with our system and management. However, we need a more aggressive stance as governance and risk management are efforts that require continuous hard work with no final goal. For example, in regard to bad news first, I think we are comparatively fast in providing information, but I look forward to a system that allows even faster notifications.

# What are the achievements of the Nomination Committee and its issues?

Committee meetings and mainly discussed repeatedly about the CEO succession plan and outside director candidates.

Regarding the CEO succession plan, we discussed candidates and development plans that also considered the timeline. I cannot say it is adequate and we need a systematic and continuous approach. As for the two outside director candidates this time, we selected candidates from the perspective of experience in corporate management, capital markets, risk management and management at a global scale.

Ichikawa During the previous evaluation of the effectiveness of the Board of Directors, the Nomination Committee pointed out the lack of transparency in the CEO succession plan and the inadequate number of outside director candidates. This is proof of effective governance, and we accept the pointers with appreciation. With this in mind, we sorted out the concept for our skills matrix, and defined the list creation method and filtering procedures to enhance the list of candidates being developed by the Nomination Committee. We also confirmed the detailed timelines for the selection of management candidates.

Miura

The securing and development of human resources is a common issue that becomes a major theme for any company's board of directors. In particular, the CEO succession plan is the most difficult issue for a company. There are things that can and cannot be shared by the Nomination Committee, but it would be good if specific information about matters such as recruitment and development processes and results could be shared with members of the Board of Directors. The issue is how to carry out information collaboration as executives perform their three respective roles of nomination, compensation, and audit.

# What are the issues for further enhancement of corporate value?

Ichikawa The semiconductor industry is achieving significant growth globally, and we take pride in our steady performance in a market with high barriers to entry. However, our competitors are extremely strong in an oligopolistic market, and it is expected that competition will become even more intense going forward. Furthermore, the speed of technological innovation is fast, and we may see the sudden appearance of a game changer. Under such circumstances, it is necessary for us to refine our ability to discern in developmental fields and actively incorporate new technologies in M&A and other aspects. We also need to secure highly skilled human resources from other industries and build an organizational structure with diversity that applies their capabilities.

Sasaki
It is important to invest in new technologies and business in our long-term strategy. To give birth to technological innovations that cannot be imitated by others, we need to discuss concentration and distribution with ultra-long-term prospects and taking into consideration changes in the external environment. The key is to carry out flexible investment decisions in distributed technological development and concentrate on promising technologies.

Miura
We understand that whether we can manufacture products with high added value sought by semiconductor manufacturers—our customers—will affect our growth.
Therefore, the selection of recipients for investment in research and development as well as the securing and development of human resources are issues for enhancement of our corporate value. It is important to strike a balance between having a view of ultra-long-term prospects and properly working on the tasks at hand

Wagai As a leading global company, it is our mission to simultaneously achieve both enhancement of corporate and social value and create sustainable circulation. Therefore, it is important to steadily work on key indicators based on our material issues and disclose the results of such efforts.

Nunokawa Net zero and sustainability initiatives will drive further enhancement of corporate value. Making semiconductors consume lower power will be crucial in limiting the increase in global electricity demand. As a leader in the semiconductor production equipment industry, we will aim for net zero emissions together with all stakeholders. Our outside directors have a proper understanding of Tokyo Electron, and I am happy to hear their opinions based on thought given to our future. I look forward to your continued support.

# **Engagement with Capital Markets**

Our management actively engages in IR (Investor Relations) and SR (Shareholder Relations) activities to contribute to our sustainable growth and increase corporate value over the medium to long term.

In terms of IR activities, the CEO and each company's executive appear at quarterly financial announcement and the Medium-term Management Plan briefings to share our business strategies and growth story with stakeholders and institutional investors. We have also established the IR Department, within the Corporate Strategy Division, to enable deeper discussions with our investors. In fiscal 2024, we established an IR brunch in New York, which increased opportunities for face-to-face dialogue

with investors in North America and increased awareness of us and Japan's semiconductor production equipment industry.

As a part of our SR activities, company executives play a central role in constructive dialogue with our major investors and proxy advisory firms. In addition to explaining the Shareholders' Meeting agenda in advance, we engage in repeated dialogue throughout the year on a wide range of topics, including policies on corporate governance and sustainability, and initiatives for the environment, human rights and DE&I, and we work to deepen mutual understanding. Opinions gathered from dialogues with investors are regularly reported to management and the Board of Directors.

#### Main Activities

Engagement with Capital Markets <sup>1</sup>	IR Activities	<ul> <li>Individual meetings for institutional investors:         809 times in total (528 times at Tokyo headquarters, 201 times at our New York site, and 80 times<sup>2</sup> elsewhere)     </li> <li>Overseas IR road shows<sup>3</sup>: 10 countries and regions</li> <li>Tours of plants: 13 times</li> </ul>		
	SR Activities	• Individual meetings for institutional investors: 23 times		
Provision of Information	Financial Announcement Medium-term Management Plan Announcements	<ul> <li>Broadcasting using simultaneous interpretation and subtitles</li> <li>Broadcasting of archives from announcements/conferences within one business day; disclosure of Q&amp;A within two business days</li> </ul>		
	Shareholders' Meeting	Posting of convocation notices on the website and dispatch of convocation notices at an early stage		
Disclosure of Materials IR-related		<ul> <li>Consolidated Financial Statements, Integrated Report, Fact Book (each once per year)</li> <li>Quarterly Report, Earnings Release, Financial Announcement Materials, Corporate Update (each 4 times/year)</li> </ul>		

1 Fiscal 2024 2 Including tours of plants and overseas IR road shows 3 Overseas IR road shows: IR activities presented directly to shareholders and investors

# Compliance

#### Approach to Compliance

As an industry leader, we regard business ethics and compliance as important values. Compliance—like safety and quality—is the basis for corporate reliability and sustainable growth. It requires a strong sense of ethics and integrity in individual and organizational behavior, not to mention compliance with laws

and regulations. In addition to strengthening systems for raising awareness about compliance and changing behavior in order to prevent compliance violations, we promote effective programs. These efforts will support the enhancement of our corporate value.

#### **Compliance System**

In order to effectively promote compliance programs that are expected of a global company, we have appointed a Chief Compliance Officer (CCO) and established a dedicated Compliance Department at our headquarters. We have also appointed Regional Compliance Heads at key overseas sites, and have established a framework for direct reporting to the CCO and Compliance Department.

#### **Compliance Initiatives**

#### Business Ethics and Compliance

To more effectively instill and promote business ethics and compliance, we have formulated the Tokyo Electron Group Code of Ethics as a code of conduct for all executives and employees and established the Business Ethics Committee. We have set up the Disciplinary Committee as a subordinate organization of the Business Ethics Committee to ensure the implementation of reasonable and appropriate disciplinary action and proper procedures. In addition, through regular meetings with each of the Group companies, we discuss and implement measures to promote compliance.

We have also set up an award system for employees who have engaged in particularly excellent activities relating to business ethics and compliance, to raise awareness within the Group and fostering a compliance-oriented culture.

#### Initiatives for Anti-bribery and Corruption and for Competition Laws

We have globally established the Basic Policy on the Prevention of Bribery and Corruption and the Guidelines for Gift, Hospitality and Entertainment in the area of anti-bribery and corruption, and the Basic Policy on Competition Law Compliance and Guidelines in the area of competition laws. To prevent violations, we regularly conduct activities to foster awareness, and we are committed to promoting understanding and instilling these Policies and Guidelines.

#### Internal Reporting System

We have established an internal reporting system that allows employees to safely and securely raise concerns and seek redress outside the chain of command, and to report and discuss any behavior that is, or may be, in violation of laws, regulations, or business ethics. This system ensures complete confidentiality, anonymity and the prohibition of retribution and unfavorable treatment. An internal leniency system has also been introduced, whereby any disciplinary action may be reduced or exempted in the event that an employee involved in a compliance violation has made a report or sought advice on their own volition. This encourages employees to proactively provide information and leads to problems being discovered and resolved at earlier stages.

As part of this internal reporting system, we have established

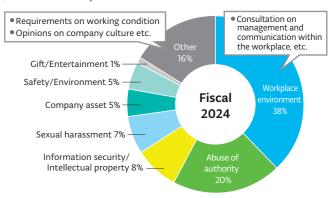
and are operating the Tokyo Electron Group Ethics & Compliance Hotline—a global common internal point of contact that uses a third-party system and is also accessible to our suppliers and retirees—as well as an external point of contact that allows direct consultation with an outside law firm. The internal point of contact can be accessed via phone or a dedicated website 24 hours a day, 365 days a year, and accommodates all languages used by employees.

Reports and consultations received via these points of contact are handled with sincerity and investigations are undertaken in accordance with internal regulations. If a compliance violation is found, disciplinary actions in accordance with the Rules of Employment, corrective measures such as improvements to the workplace environment and preventive measures are implemented as necessary.

In fiscal 2024, a total of 110 reports and consultations were received via the internal reporting system, of which 16\* were recognized as compliance violations. The reports and consultations primarily related to the workplace environment, including harassment. Based on the results, we continue to conduct regular education programs for our employees with the goal of preventing harassment, and we provide thorough follow-up with those concerned or involved. The CCO also provided compliance training for managers, which included the importance of establishing an open work environment.

There were no reports or cases of violations of laws/ regulations in our operations that could have had a serious impact on our business or on local communities.

#### Breakdown of Report/Consultation Contents



#### Global Response to Internal Reports



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<sup>\*</sup> There were no cases filed or prosecuted by the authorities

# Risk Management

#### Approach to Risk Management

Our Group has built and developed a risk management system to respond effectively and promptly to various risks, such as geopolitical and market changes in the semiconductor industry, and to ensure sustainable growth. We believe that it is important

not only to minimize the impact of potential risks that may arise during business operations, but also to view these risks as potential business opportunities and address them in a manner that earns the trust of society.

#### Risk Management System and Implementation

In April 2024, we established the Corporate Project & Risk Management Office (CPRO) at the head office as a strategic department directly reporting to the CEO to promote more effective risk management. We are actively working toward advancing enterprise risk management<sup>1</sup>.

To address major risks in our business activities, we have implemented the following PDCA cycle throughout the entire Group.

- 1. The CPRO and the departments responsible each business activities, together to comprehensively identify various risks in our business activities, such as related to compliance, human resources and labor, and business continuity, based on their degree of impact on the Group and likelihood, identify 12 risk items, and appoint risk owners for each.
- 2. The 12 identified risk items are discussed and shared at the Risk Management Committee, which includes each risk owner.
- **3.** Recognizing that mitigating risks directly presents opportunities for improving business performance, quarterly review meetings involving the CEO and each division officer are held to review the progress of efforts on issues that are particularly problematic among the 12 risk items and discuss improvement measures.

The Group's risk management activities are regularly reported

to the Board of Directors, which oversees various initiatives implemented by each risk owner. To continue practicing autonomous and highly effective risk management, we will carry out group-wide agile operations.

Additionally, we are also continuing to focus on the revision and operational improvement of our BCP for all Group companies, and we regularly conduct BCP drills and disaster drills to foster the practical ability to ensure the continuation of business operations in the event of an emergency.

Furthermore, we are actively promoting digital transformation in our risk management activities, and have been introducing GRC tools<sup>2</sup> that utilize digital technology since fiscal 2023. This introduction has made it possible to visualize the assessment of risks and response measures across the entire Group as well as to conduct global, cross-sectional information sharing between each owner and each responsible department.

To continue practicing autonomous and highly effective risk management, each owner will implement activities to further strengthen risk management for the 12 risk items across the entire Group.

- 1 Enterprise risk management: Group-wide systems and processes related to risk management activities
- 2 GRC tools: A system that contributes to managerial decision-making in a timely manner by systematically organizing multi-layered and complex corporate management functions and rmation collected through the integration of Governance, Risk and Compliance (GRC) measures related to corporate activities

#### Risk Management Initiatives

We have begun assessing the current risk management state, identifying and examining mitigation measures for not only known and unknown risks that may surround the Company in the future, but also emerging risks from a medium- to long-term perspective. As for fiscal 2024, the 12 risks identified to date

were reviewed and reevaluated from the perspective of their potential to have a significant impact on our operating results, financial condition and cash flow. We then pushed forward risk management initiatives for each identified risk even further.

12 Risks							
Item	Main Potential Risks	Main Risk Management Initiatives					
1 Market Fluctuations	A rapid contraction of the semiconductor market could lead to overproduction or an increase in dead inventory A sharp increase in demand could lead to an inability to supply customers with products in a timely manner, resulting in lost opportunities	Periodically review market conditions and orders received at the Board of Directors and other important meetings, and appropriately adjust capital investments, personnel/inventory planning and other aspects of business  Establish a dedicated division to work closely with a wide range of customers around the world and to quickly identify their needs and capital spending trends. Through these efforts and others, we strive to strengthen our sales framework and further improve our customer responsiveness					
2 Research and Development	Delays in the launch of new products or the mismatch of such products with customer needs could lead to a decline in the competitiveness of products	Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division     Provide highly competitive next-generation products ahead of competitors by collaborating with research institutions and sharing a technology roadmap that span multiple generations with leading-edge customers					
3 Geopolitics	<ul> <li>Geopolitical tensions and regional conflicts that influence international order and global macroeconomic conditions can affect the national security, diplomatic, industrial or environmental policies of countries and regions. This could in turn lead to supply chain disruptions or deterioration of the macroeconomic environment, restricting the Company's ability to operate business</li> </ul>	Carefully monitor the international situation as well as the diplomatic and security measures and industrial policy trends in each country and region     Analyze the implications on our business of regulations concerning product exports and imports and technological development and changes in the macroeconomic environment while actively engaging in dialogues with the policy-making authorities, industry groups and experts in various fields, and consider countermeasures in advance					
Procurement, 4 Production and Supply	<ul> <li>Interruptions in the Company's production due to natural disasters, delays in component procurement stemming from deterioration of suppliers' business conditions, increased demand that exceeds suppliers' supply capacities, changes in laws and regulations, a shrinking working population or other factors, and strains on domestic or international logistics networks could lead to delays in the supply of products to customers</li> </ul>	Develop BCP, such as by establishing alternate production capabilities, seismically reinforcing our plants, promoting production leveling, maintaining backups of information systems, developing multiple sources of important components, and maintaining an appropriate level of inventory     Share forecasts based on demand projections for semiconductors with suppliers and build a system for the stable supply of products					
5 Safety	Safety problems with the Company's products or serious accidents resulting in workplace injuries could lead to damage to customers, liability for damages and a decline in public trust and confidence in the Company's safety initiatives	Based on the "Safety First" approach, we implement thorough safety design at the product development phase with risk reduction in mind     By conducting risk assessments such as frontline workers' hazard prediction meetings, we implement company-wide efforts such as identifying potential risks and implementing preventative or mitigation measures, promoting safety through in-house competency qualification and safety training programs that are designed according to job requirements and developing an accident reporting system					
6 Quality	The occurrence of a product defect could lead to liability for damages, costs for countermeasures and a decline in the Group's brand and credibility	Promote continuous education on quality to employees and suppliers to establish a quality assurance system and a world-class service system Resolve technical issues from the product development and design stage Thoroughly investigate the cause of any defects and implement measures to prevent the same or similar defects from occurring Monitor the quality status of suppliers, conduct audits and provide support for improvement					
7 Environmental Issues	<ul> <li>The inability to respond appropriately to each country's climate change policies, environmental laws and regulations, and customer needs could lead to additional related costs such as for developing new products or changing specifications, as well as to reduced product competitiveness and diminished public confidence in the Company</li> </ul>	To achieve industry leading medium- to long-term environmental goals that include the net zero target, implement measures such as reducing greenhouse emissions from the use of our products, increase the rate of renewable energy usage at plants and offices, reduce overall power consumption, review packaging materials, and promote a model shift  Provide technologies, etc., that contribute to higher performance and energy efficiency of semiconductor devices through implementation of our E-COMPASS initiative					
8 Laws and Regulations	Violations of the laws and regulations of the countries and regions where the Company operates could lead to diminished public confidence in the Company, fines, liability for damages or restrictions on business activities	Monitor compliance activities at key sites in and outside Japan under the direction of the Chief Compliance Officer     Have assessments conducted by external experts and report identified issues to the CEO, the Board of Directors and the Audit & Supervisory Board for swift and effective action					
9 Intellectual Property Rights	<ul> <li>The inability to obtain exclusive rights to proprietary technologies could lead to reduced product competitiveness</li> <li>Infringement of the intellectual property rights of third parties could lead to restrictions on the production and sale of products as well as liability for damages</li> </ul>	Advance the intellectual property strategy, business strategy and R&D strategy in an integrated manner to build an appropriate intellectual property portfolio     Reduce the risk of infringement of other companies' patents by continuously monitoring other companies' patents and establishing a system to take appropriate measures in cooperation with the business and R&D departments					
10 Information Security	Cyberattacks, internal fraud and other incidents against the Company or suppliers that cause data breaches or service disruptions could result in a loss of our competitiveness or technological superiority, interruptions of our manufacturing and other operations, diminished public confidence in us and damage claims	We strive to properly manage and protect our information assets through establishing a global security policy, educating and training employees to increase awareness, while implementing cybersecurity solutions, security monitoring, and safeguards against internal fraud and other technical and operational measures     We have established an Information Security Committee to strengthen our Group-wide security posture and are working to further enhance the effectiveness of our information security measures, including through internal audits and assessments by external agencies					
11 Human Resources	The inability to recruit and retain necessary human resources on an ongoing basis or the inability to create an environment where people with diverse values and expertise can play an active role could lead to diminished product development capability or customer support quality	Make continuous improvements to work environments and promote diverse work styles as well as health and productivity management (e.g., sharing our visions by management, establishing training plans for human resource who will lead the future, visualizing career paths for employees and offering attractive remuneration and benefits)     Fostering semiconductor talent through collaborative efforts between industry, government, and academia as well as strengthening our partnerships with academic institutions globally					
Other Risks Such as Infectious Diseases and Natural Disasters	<ul> <li>In addition to economic conditions, financial and stock markets, and foreign exchange rates, earthquakes, typhoons, heavy rains, floods and other natural disasters, and pandemics could cause the Company's business activities to stagnate and the global economy to deteriorate</li> </ul>	<ul> <li>In addition to taking appropriate measures against each risk, in case of a potential impact on the continuation of the business, establish an Emergency Task Force headed by the CEO and implement measures to minimize the impact</li> </ul>					

# Information Security

We view the assurance of information security as an important managerial issue, and appropriately protect confidential information primarily concerning information on our customers and suppliers as well as information on leading-edge technology. In addition, we strive to strengthen information security to ensure the stable operation of the entire supply chain.

#### Main Activities

#### **Information Security Systems**

We designate Information Security GMs, Managers, and Promoters at the Head Office and each Group company in Japan and overseas. We are working to strengthen security by collaborating through multiple discussions internally in each company, or according to each function, so that the entire Group will hold a common recognition of the issue.

#### **Information Security Countermeasures**

For fiscal 2024, we have redefined information security risks, built a company-wide framework called the Security Development Goals, and set Medium-term Management Plan goals for information security.

#### **Information Security Management**

We identify information assets each year and implement risk assessments for each department, evaluate risks and undertake improvement activities for technological, human, organizational and physical security measures. Furthermore, we strive to improve awareness about information security by conducting security education and phishing email training regularly for all executives and employees, and through the distribution of a newsletter. Furthermore, from fiscal 2025, we will gradually aim to obtain ISO/IEC 27001 certification, an international standard for information security management.

#### **Cyber Security Countermeasures and Internal Fraud Countermeasures**

We established and operate a monitoring and incident response system and implemented industry-standard cybersecurity solutions to defend against cyberattacks such as ransomware and combat internal fraud, including industrial espionage. In fiscal 2024, we implemented measures such as strengthening network security, conducting penetration tests<sup>1</sup> for our external websites, introducing endpoint security<sup>2</sup> solutions, and bolstering monitoring levels.

#### Security at Manufacturing Sites and in Products

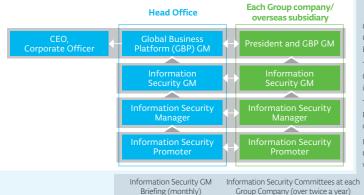
We are strengthening security at our manufacturing sites through operations such as the introduction and monitoring of necessary solutions to ensure the safe and stable operation of the manufacturing sites. Furthermore, we will strive to ensure product security that contributes to the stable operation of our customers' plants by implementing security measures based on industry standards, including cybersecurity standards E187/E188 defined by SEMI, and the laws and regulations of each country, such as the EU Cyber Resilience Act, for the products we deliver to our customers.

#### **Supply Chain Security**

We conduct risk assessments on our suppliers and work on enhancing security in the entire supply chain by making improvements with our suppliers on identified issues.

#### Collaboration with External Security Organizations and Strengthening Human Resources

Organized by SEMI, the Semiconductor Manufacturing Cybersecurity Consortium was established in December 2023 with the participation of information security departments from companies in the semiconductor industry. In addition to being selected as a member of the steering committee, we participated in discussions in various working groups and gave a talk at SEMICON Japan. In the future, we also plan to give talks and participate in meetings at overseas events. While working to increase the number of employees with information security qualifications through technical training and recruitment of specialized personnel to strengthen the organization's human resources, we are participating in the Nippon CSIRT Association<sup>3</sup> to further study information security.



#### Committee Name

Quarterly review meeting, Corporate Officers Meeting etc. (explained in the Business Execution Meeting)

TEL Group Information Security Committee (decision making of important issues, twice a year)

TEL Group Information Security Promotion Committee (annual plan consensus building, over twice a year)

Information Sharing Meeting with Each Company (resolution of everyday issues

- Penetration test: A test method for verifying vulnerabilities in networks PCs, servers and systems
- 2 Endpoint security: Security measures to protect terminals connected to the Internet, internal LANs, and virtual environment terminals from cyberattacks
- 3 Nippon CSIRT Association: The Nippon Computer Security Incident Response Team Association, an organization that promotes close cooperation between teams and

# Evaluation from Third-party Institutions

Our sustainability initiatives have allowed us to continue to be selected as a constituent stock under leading global ESG indices. Some examples are, the Dow Jones Sustainability™ Asia/Pacific Index, FTSE4Good Index Series<sup>1</sup>, MSCI ESG Leaders Indexes<sup>1</sup>, Euronext Vigeo World 120 Index and STOXX Global ESG Leaders indices. We were evaluated as a Low Risk company in Sustainalytics' ESG Risk Ratings<sup>2</sup>, continuing from the previous year. In April of 2024, we were also selected as an SX Brand<sup>3</sup> as a progressive company that engages in long-term and sustainable corporate value.

The Tokyo Electron Integrated Report 2023 was selected again as an "Excellent Integrated Report" by the Government

Pension Investment Fund (GPIF)'s external asset managers entrusted with domestic equity investment for the third consecutive year, and we were selected for the Excellence Award at the Third NIKKEI Integrated Report Award.

1 Logo's disclaimer

Third-party Recognition" on our website www.tel.com/sustainability/review.html

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- 3 SX Brands: Brands established by the Ministry of Economy. Trade and Industry and the Tokyo Stock















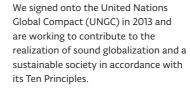


# Participation in Global Initiatives

We actively participate in a variety of global initiatives and practice sustainability in our business activities.

# **WE SUPPORT**



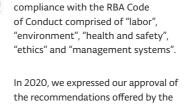


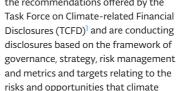
We joined the Responsible Business

Alliance (RBA) in 2015, and we work

together with suppliers to ensure







change presents to our overall business.



We concur with the vision of the Taskforce on Nature-related Financial Disclosures (TNFD) and in 2023, joined the TNFD Forum, which appropriately evaluates risks and opportunities related to natural capital and biodiversity.



We joined a global industry association, SEMI<sup>2</sup> which aims for the global development of the semiconductor industry, in 1978 as a member company, and engage in the promotion of the establishment and standardization of international guidelines as well as the promotion of sustainability.

Initiatives Related to Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) P. 55-56

2 SEMI: Semiconductor Equipment and Materials International