Tokyo Electron is building a superior business model that takes advantage of its characteristics and is continuing to create new value through sustainability initiatives and the development of value chains in its business activities.

**Initiatives in the Value Chain**

**Overview**
- Development of unique technologies for creating high-value-added, next-generation products that contribute to technological innovation in semiconductors
- Continuous development that looks into the future based on the prompt comprehension of market and technological trends, as well as customer needs

**Differentiation Points**
- Promotion and optimization of development through close collaboration among the Corporate Innovation Division, business divisions and development sites in Japan and overseas
- Development of leading-edge technologies through various types of collaboration with consortia, academia and suppliers in Japan and overseas
- Pursuit of development efficiency and new value creation by promoting digital transformation (DX)

**Value Created**
- Innovative, high-value-added and unique technologies and solutions that cover multiple semiconductor manufacturing processes
- Improvement in equipment productivity, such as higher throughput, a higher utilization rate and smaller space requirements
- Equipment technology that increases environmental performance

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**Research and Development**

**Overview**
- Establishment of stable production capabilities by building a sustainable supply chain
- Efficient manufacturing of high-quality, high-reliability, safe and environment-friendly products
- Creation of value through partnerships with suppliers

**Differentiation Points**
- Stable procurement and production leveling through collaboration based on relationships of mutual trust with suppliers
- World-class manufacturing operations through the use of our manufacturing know-how, knowledge and the equipment data we have accumulated over many years
- Initiatives to preserve the global environment throughout the supply chain

**Value Created**
- High-quality and high-reliability products incorporating leading-edge technologies
- Shortening of production lead times by optimizing the production plan and increasing the efficiency of manufacturing operations, etc.
- Safety-first operation

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**Procurement and Manufacturing**

**Overview**
- Be the sole strategic partner for customers by providing the Best Products and Best Technical Service
- Proposals on optimal solutions that contribute to the creation of value for our customers

**Differentiation Points**
- Accurate comprehension and prompt provision of technologies and solutions, etc. needed by our customers through the development of global operations
- Ability to suggest solutions by taking advantage of a wide range of product lineup and to satisfy a broader range of customer needs with used equipment and re-engineered equipment
- Continuous initiatives to improve customer satisfaction

**Value Created**
- High-value-added products incorporating innovative technologies by simultaneous parallel evaluation of four technology nodes
- Products that address a variety of applications, as well as used equipment and re-engineered equipment
- Responsiveness to customers through close collaboration throughout the entire Group

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**Sales**

**Overview**
- Deploying the Best Technical Service with high added value in a prompt and appropriate manner
- Strengthening of our global support structure to provide advanced field solutions that solve customers’ issues

**Differentiation Points**
- Field engineers who are highly specialized and possess broad knowledge
- Initiatives to reduce environmental impact through support services that extend the life cycles of equipment, etc.
- Providing highly efficient and high-quality services through the use of AI and digital technologies, the promotion of knowledge management, etc.

**Value Created**
- Comprehensive services that include everything from equipment delivery to maintenance
- Contribution toward the long-term steady operation of equipment across many generations
- High-quality technical services that contribute to improving customers’ productivity
Tokyo Electron will continue to create highly unique technologies through balanced basic and applied R&D as well as through utilizing in-house and outside knowledge, while always remaining conscious of the most current customer needs.

We are creating innovative and unique technologies for manufacturing leading-edge semiconductors and flat panel displays (FPDs) by ascertaining technological and market trends as well as customer needs early on by leveraging global marketing activity networks and sharing that information throughout all relevant departments. Through development portfolio management, we are formulating short-term as well as medium- to long-term development strategies and progressing various types of basic and elemental R&D toward the next growth phase. Additionally, we are strengthening our R&D capabilities and continuing to develop technologies that will help customers create value through collaboration between our major domestic development sites and R&D sites worldwide as well as through alliances with outside consortiums, research institutes, academias and suppliers.

Key Themes for Medium- to Long-Term Value Creation

- Timely development of high-value-added technologies and products through promotion of Shift Left
- Creating innovative and unique technologies for manufacturing leading-edge semiconductors and FPDs
- Increasing investment in human resources and development

Management Resources to Be Invested

<table>
<thead>
<tr>
<th>R&amp;D investment</th>
<th>More than 1 trillion yen</th>
</tr>
</thead>
<tbody>
<tr>
<td>R&amp;D sites</td>
<td>12</td>
</tr>
<tr>
<td>(6 in Japan and 6 overseas)</td>
<td></td>
</tr>
</tbody>
</table>

Primary Management Indicators

- R&D expenses
- Number of new product releases
- Global patent application rate

The percentage of invention applications that resulted in applications filed in multiple countries

Sustainability Initiatives

- Initiatives related to product environment
- Future-oriented development of environmental technologies through partnerships with suppliers
- E-COMPASS
- Structure to promote innovative development that takes advantage of global diversity
- Diversity and Inclusion
- Development efficiency improvement through the promotion of DX
- Promotion of Digital Transformation (DX)

Risk Management Initiatives

- 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 technology roadmaps spanning multiple generations with leading-edge customers.
- Advance the intellectual property strategy, business strategy and RD strategy in an integrated manner to build an appropriate intellectual property portfolio.
- Advance 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 verified the future, widening career paths for employees and offering attractive remuneration packages).

Main Research and Development Initiatives

Strengthening Research and Development Capabilities

For our medium- to long-term growth, it is extremely important to continuously create the high-value-added next-generation products that are necessary for technological innovation in semiconductors.

Development sites in Japan and overseas, business divisions and the Corporate Innovation Division maintain their respective individuality, collaborating in necessary areas while promoting technological development and integration. We have a multi-structured development system that promotes advancement and evolution in the process from basic-element development to mass-produced products.

Each development site and business division is engaged in the development of semiconductor and FPD production equipment with innovative technologies and an eye on future generations. They also promote R&D related to peripheral technologies for these production equipment.

The Corporate Innovation Division strives for the creation of further high-value-added products by working closely with each development site to develop cross-function initiatives in each product area as well as promoting and optimizing R&D while maintaining 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.

Collaboration with Consortiums and Academia

We have focused on collaborative efforts with domestic and international consortiums and academic institutions (universities) to enhance our research and development capabilities and to create leading-edge technologies for a very long time.

Today, we continue our work in a wide range of areas from applications to product development. In the area of EUV and high-NA-EUV lithography processes, this has been achieved through collaboration with imec located in Belgium. Furthermore, we participate in a global research hub for hardware development of next-generation AI in the U.S. state of New York, and have formed a partnership with BRIDG, which is a non-profit public-private partnership located in the U.S. state of Florida, as well. At our research center in TEL Technology Center, America, advanced research and development in the areas of front-end, back-end, and advanced packaging process areas are being carried out daily.

Additionally, we collaborate with the National Institute of Advanced Industrial Science and Technology (AIST), one of Japan’s largest public research institutions. There we leverage AIST’s world-class research environment and personnel to enhance our own development by conducting MIRAM and 3D-material-related research. We do this to address the needs in the field of semiconductor.

Promotion of Digital Transformation (DX)

We have positioned DX as an important means for continuing to provide new value to customers and are developing company-wide initiatives to do so. In R&D, we have begun operation of remote support services that apply AR technology while also promoting initiatives to search for new materials and optimize processes at overwhelming speeds by utilizing materials informatics.

Furthermore, in addition to the "Advanced Data Planning Department" that supports DX activities in product competitiveness and customer responsiveness, we established the "Digital Transformation Promotion Department" in January 2022 which is responsible for planning and supporting DX activities in productivity improvement and management foundation; further strengthening DX promotion throughout the entire Group.

We plan to continue the utilization of things such as AI in solving technology development, which is becoming increasingly diverse.

1 EUV and high-NA-EUV: Extreme Ultraviolet. Ultraviolet radiation (ultraviolet rays) in the wavelength range of 1 to 100 nm. High-NA refers to next-generation EUV, an exposure technology that shortens the resolvable line width by increasing the numerical aperture (NA).

2 Front-end/Back-end: In semiconductor device production, the beginning section of the manufacturing process is called the front-end (FEOL), and the latter section is called the back-end (BEOL) where the wiring is traditionally accomplished.

3 MIRAM: Magneto-optical Random Access Memory

4 AR: Augmented Reality

5 AIST: Advanced Industrial Science and Technology

6 Chaska Office, Chelmsford Office

7 NY CREATES

8 SUNY Poly/IMEC

A variety of issues and developing functions, and to advance the development of production equipment that is equipped with innovative functions such as analyzing its own operating conditions and improving functions and operating efficiency.

1 AR: Augmented Reality

2 Materials Informatics: Approach to materials exploration using academic papers, internal and external material databases, machine learning and actual experimental data.
Along with striving to build a sustainable supply chain, we have established a system for manufacturing high-quality products more efficiently.

We are aiming for constant innovation in production based on the themes of safety, high quality, and high reliability, and are putting together manufacturing operations that are eco-friendly. Besides working toward a vertical transfer from product development to mass production via further improvements to efficiency, we are also promoting the creation of manufacturing core systems that can respond swiftly to market fluctuations, as well as strengthening and leveling of production capacity.

To ensure stable and sustainable procurement, we carry out sustainability and BCP assessments throughout the supply chain based on industry codes of conduct, as well as share knowledge with our suppliers regarding safety, quality, the environment and compliance. We value fair and transparent relationships with our suppliers and aim to grow alongside them and contribute to society on a global level through firm relationships based on trust.

BCP: Business Continuity Plan

Key Themes for Medium- to Long-term Value Creation
- Creating production capabilities and manufacturing core systems appropriate for the market size
- Optimizing management resource allocation to truncate the transition period from product development to mass production
- Streamlining manufacturing operations with consideration toward the operating margin and ROE

Management Resources to Be Invested
- Many years of know-how (people and products) in semiconductors and FPD manufacturing
- Manufacturing core systems based on the latest digital technology
- Firm trust-based relationship with our suppliers

Primary Management Indicators
- Direct and indirect manufacturing costs
- Production lead times
- Procurement stockout rate

Sustainability Initiatives
- Quality control in manufacturing
- Promoting sound supply chain management based on industry codes of conduct
- Initiatives for reducing CO2 emissions and introducing renewable energy at plants and offices
- Medium- and Long-term Environmental Goals
- Shortening of production lead times and leveling
- Continuous Improvement of Business Operations

Risk Management Initiatives
- Main Risks
  - Procurement, Production and Supply: Delays in the supply of products
  - Quality: Defects in the supply of products
  - Safety: Decrease of safety-related problems and liability for damage and a decline in credibility
  - Environmental Issues: Costs such as developing new products in keeping with specifications, and declining product competitiveness and directed public confidence in the Company
- Initiatives
  - Formulates business continuity plans, develops alternate production capabilities, promote the systemic reinforcement of plants, invest in production enhancement and the backing capability for information systems, use multiple sources of important parts, and maintain appropriate inventory levels.
  - 防歯の作業を安全な作業内容を可能な限り Raised the priority on the safety, health and welfare of all people, implement emergency safe design with all awareness of risk reduction at the product development stage, promote safety training and establish an accident reporting system.
  - Establish a quality assurance system and a world-class service system.
  - Handle technical issues from the product development and design stages.
  - Investigate the cause of any defects and implement measures to prevent similar defects from occurring in the future.

Initiatives to Reduce Environmental Impact
We are developing a variety of initiatives at our plants and offices as well as in logistics and the supply chain with consideration of the environment.

At plants and offices, we are working to further improve energy consumption efficiency through a variety of measures such as energy-saving clean room operation, setting office air conditioning to appropriate temperatures, introducing devices that offer superior energy-saving performance, and promoting the introduction of renewable energy (electricity) globally to achieve our medium- and long-term environmental goals.

In logistics, we are working to transition between methods of transportation by promoting a modal shift in transportation in Japan and overseas. We are also striving to reduce CO2 emissions and reduce environmental impact by adopting packaging made with reinforced cardboard.

In addition to these initiatives, we are actively working toward the preservation of the global environment throughout our entire supply chain in partnership with our suppliers through the development of E-COMPASS* activities.

* Refer to Medium- and Long-term Environmental Goals on p. 38
* Modal shift: Transferring from transportation by car and/or to rail and ship, which have lower environmental impact.

Sustainable Procurement Strategies
We are rapidly developing various initiatives to respond to delays in the procurement of parts and materials needed for production, price increases, and resulting supply chain disruptions caused by recent global shortages of semiconductors and other electronic components.

The Corporate Procurement Division is working with each manufacturing site and promoting the optimization of procurement and parts inventories throughout the Group by regularly conducting supply chain BCP assessments, improving commercial distribution management through the further enhancement of supplier maps and other tools, strengthening supplementary parts systems between manufacturing sites and examining procurement processes. In addition, we are working to adjust sales plans with production, procurement and inventory plans by sharing both short-term and medium-term order forecasts between sales and manufacturing divisions, as well as striving to ensure stable procurement and both delays in the procurement of parts and materials and start-up process leveling. Through these efforts, we are striving to improve safety, quality and efficiency of equipment production and start-up.

Based on the belief that smooth communication with suppliers is important, we hold periodic update briefings, TEL Partners Day and other events on a regular basis to create opportunities to share market trends, our management policy and business policies, and sustainability initiatives with our suppliers.
Chapter 3 Value Creation by the Value Chain

Initiatives in the Value Chain

Sales

We propose optimal solutions that contribute to the creation of value for our customers in order to be the sole strategic partner.

Since our company's inception, improvement of customer satisfaction has been a significant management theme. We will build strong, trust-based relationships with our customers by providing the Best Products and Best Technical Service in order to be their sole strategic partner.

We help customers manufacture leading-edge devices by grasping the latest technological trends and customer needs in an accurate and timely manner, as well as developing innovative technologies for future generations. In addition, by leveraging our strengths as a semiconductor production equipment manufacturer with a diverse product lineup and the experience and high level of quality we have cultivated over many years, we propose optimal solutions that contribute to the creation of value for our customers. Moreover, by focusing on sales of used equipment and re-engineered equipment, we can meet a wider range of customer needs and help maximize their return on investment.

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 and Best Technical Service
- Improving our position among our major customers

Management Resources to Be Invested

A global sales and service system in which the Account Sales Division, the Global Sales Division, our business units and overseas subsidiaries coordinate with one another

Primary Management Indicators

Customer satisfaction

Market share of major customers and products

Operating margin

Mutual trust with customers build through many years of performance records

Broad-ranging knowledge and comprehensive technological capabilities born from our diverse product lineup

Sustainability Initiatives

- Initiatives for improvement of customer satisfaction
- Initiatives for Improvement of Customer Satisfaction
- Ongoing efforts to ensure customer safety
- Reducing CO₂ emissions from product usage by addressing Medium-term Environmental Goals
- Medium- and Long-term Environmental Goals
- Improvement of operational efficiency in sales activities
- Continuous Improvement of Business Operations

Risk Management Initiatives

Market Fluctuations

Sales opportunity losses due to inability to supply customers with products in a timely manner

- Periodically review market conditions and status received at the Board of Directors and other important meetings, and appropriately adjust capital investments, personnel/inventory planning and other aspects of business
- The Account Sales Division and the Global Sales Division strengthen the sales framework and customer base by grasping investment trends of customers and responding to a wide range of customer needs

Geopolitics

Restrictions on business activities in each country and region

- Carefully monitor the international situation as well as the political, economic and security issues and trends in each country and region

Information Security

Demand for public claims in the Company or liability for damage

- Evaluate a distributed security organization and establish an information security system that conforms to international standards by having security assessments conducted by external experts, etc.
- Enforce internationally standardized rules and regulations for information management and implement response guidelines

Main Sales Initiatives

Development of Global Operations

We established the Customer Collaboration Group and are working to further strengthen our customer support capabilities in order to be the sole strategic partner for our customers. The Customer Collaboration Group is made up of two divisions: our Account Sales Division, which targets major semiconductor manufacturers, and who have been our traditional customers, to develop new technologies with an eye to the needs of next-generation leading-edge technologies in memory, logic, foundry, etc., and our Global Sales Division, which responds to the needs of more than 100 customers in Japan and overseas who deal in products for the rapidly growing Chinese market as well as the industrial IoT market.

Proposing Customer Solutions Leveraging a Wide Range of Product Lineup

To solve customers' issues and contribute to the manufacture of highly competitive devices, we offer proposals that leverage our wide range of product lineup, including equipment for key processes such as deposition, coater/developer, etch and cleaning. We simultaneously strive to help optimize manufacturing processes and enhance the productivity and quality of development and manufacturing processes by providing optimal solutions that include remote support systems and software for maximizing equipment utilization rate.

Furthermore, through continuous improvements to performance of our mass production equipment, we are proactively working to meet customer demands for the production of multiple generations of products.

We are also responding to satisfy the market's diversifying needs by providing products for the IoT market, which include power devices, image sensors, and communication devices, as well as used equipment and re-engineered equipment.

Initiatives for Improvement of Customer Satisfaction

We are working to build a solid relationship of mutual trust with customers by further enhancing customer satisfaction, which we have valued highly since our founding.

In the semiconductor production equipment industry, with rapid technological innovation, we co-create future technology roadmaps with our customers, semiconductor manufacturers, to promote the concurrent evaluation of technologies up to four generations in the future and accelerate the technological development of Shift Left. This allows us to offer highly competitive products that help improve the yield rate of devices and maximize equipment utilization rate.

Furthermore, at customer sites around the world, we are continuously implementing customer-oriented initiatives such as having our engineers quickly get installed equipment operating at maximum performance, proposing solutions to any technical issues identified and providing feedback on next-generation equipment.

In addition to these activities, we conduct a unique customer satisfaction survey every year and promote ongoing improvements to our business practices. In fiscal 2022 the results of our activities were highly evaluated, and we received best awards from many of our customers. We will continue to provide the Best Products and Best Technical Service and further improve customer satisfaction in order to be the sole strategic partner for our customers.
We have established a global support system to provide the Best Technical Service with high added value in a prompt and appropriate manner.

For installation and equipment maintenance, we take advantage of a cumulative number of equipment installations of approximately 82,000 units to offer the Best Technical Service with high added value. We make full use of leading-edge AI, digital technology, and knowledge management tools, and promote enhanced efficiency for our services to support the stable operation of various generations of equipment for a wide variety of applications.

By refining the skills of the front-line engineers who interact with customers, we work hard to accurately identify customer needs and provide timely feedback to our development and manufacturing operations. In addition, we are deploying aspects such as support services that extend the life cycle of equipment as part of our efforts to reduce environmental impact. We are also promoting the further improvement of the quality of our services through the provision of advanced field solutions, such as Total Support Center (TSC) and remote maintenance services.

To enhance our ability to anticipate changes in customer needs, we are continuously improving our ability to acquire and retain information on customer equipment usage and other technical information. This enables us to quickly respond to changes in equipment usage.

We have established a global support system, establishing Total Support Center (TSC) and remote maintenance services. Through the provision of advanced field solutions, such as support services that extend the life cycle of equipment, we are working to reduce environmental impact.

Management Resources to Be Invested

Service database and remote support system that utilizes AI, knowledge management, etc.

Approximately 4,700 field engineers with highly specialized and broad knowledge

Sustainability Initiatives

- Improving the efficiency of start-up operations and maintenance services
- Safety initiatives for installation and maintenance services
- Provision of high-quality services
- Effective utilization of diverse talent

Key Themes for Medium- to Long-term Value Creation

- Contributing to solving customer issues through the provision of high-value-added service
- Maximizing service revenues through expanded sales of comprehensive contract-based services
- Addressing new customer needs with equipment for power devices, re-engineered equipment and other measures

Risk Management Initiatives

- Quality: Implementation of quality assurance systems and a world-class service system
- Human Resources: Development of the company's human resources
- Novel Coronavirus (COVID-19): Effectiveness of the company's response in the face of global economic conditions

Main Installation and Maintenance Service Initiatives

Enhancing Front-line Engineers

We believe it is essential to accurately ascertain valuable information related to customers such as customer needs and equipment operation status through installation and maintenance services in markets where our equipment is delivered, as well as to provide timely feedback with regard to related operations to assist in equipment development, improvements to functionality and service quality development.

In order to efficiently conduct these activities, we are promoting a human resources development program where engineers from overseas subsidiaries who are in contact with customers in the field acquire knowledge and skills by undergoing training in Japan, thus further strengthening the foundation of our front line. We are also working to promote seamless communication by strengthening cooperation between engineers at overseas subsidiaries, Japanese engineers stationed overseas, development and manufacturing divisions and business units.

Initiatives to Reduce Environmental Impact

As part of our efforts to reduce the environmental impact of our services, we are also deploying LEAP, a support service that extends the life cycle of our equipment.

Support for semiconductor manufacturing equipment, which consists of tens of thousands of parts, typically ends seven to eight years after discontinuation of production. The main reason for this is due to the discontinuation of parts or the difficulty in maintaining safety and quality. This has led to the promotion of replacement with newer equipment and the discarding of older equipment. In response to customer needs and in consideration of SDGs, we began redesigning discontinued parts, and by strengthening and restructuring our support system, including repairs, we are now able to provide extended life cycle support for equipment to more than 15 years after discontinuation.

Through these new support services, we are working to reduce equipment disposal and contribute to the continuous use of equipment over a long period of time. In addition, we also offer a re-engineered equipment for 200mm wafers based on the previous generation of equipment.

Promotion of High-value-added Services

We have built a global support system, establishing Total Support Centers (TSC) in Japan, the United States, China and Europe. Service CRM centrally manages customers’ equipment records (support/transaction information) as a database through knowledge management. We strive to resolve the various issues of customers and support the stable operation of equipment through the use of TeleMatrics11, a remote maintenance service, and smart glasses12 with our unique functions as well as by deploying Service CRM at each TSC site.

In addition, in order to further promote the improved productivity of our services, we ascertain each field engineer’s actual work status through work orders to optimize personnel assignment and increase efficiency.

Furthermore, we are placing more emphasis than ever on developing advanced equipment diagnostic capabilities that utilize equipment output data. Going forward, we plan to utilize these functions to support comprehensive contract-based services, particularly those with billing based on performance (Pay for Performance contracts).
**Sustainability Initiatives in the Value Chain**

Tokyo Electron is merging business activities with a variety of sustainability initiatives, focusing on the environment, society and governance to help create new value.

**Environment**

Environmental Management System

Environmental measures are growing even more crucial. We have established the Environment Promotion Department at our headquarters, headed by a corporate director in charge of the environment, which oversees multiple meetings to promote efforts to address medium- to long-term environmental issues across the entire Group. The details are shown in the table below.

To continuously promote our environmental activities, we began an operation of an environmental management system based on ISO 14001 since fiscal 1998, primarily at our manufacturing subsidiaries. In March 2017, the entire Group obtained ISO 14001 certification together, which had previously been obtained at each plant and office in Japan. In accordance with this certification, we have identified environmental impact assessments and useful environmental aspects and are executing a standardized group format for environmental management programs and internal audit checklists. In fiscal 2022, as part of environmental management across the entire Group, we established a total of approximately 100 environmental goals for different levels and carried out these improvement activities. Any issues identified through these activities are reviewed by the Global Environment Council and reported to the Manufacturing Companies Presidents’ Council. We were once again free from environmental incidents, accidents, violations and legal proceedings in fiscal 2022.

**CO2 Emissions across the Value Chain**

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

Our total CO2 emissions of Scope 1 and Scope 2 is 90 kilotons, with Scope 3 as the sum of upstream and downstream activities accounts for a total of 29,020 kilotons, approximately 99.7% of the total. Of this, CO2 emissions when using products is 28,254 kilotons, about 97% of the total. This is why we consider the development of products with low CO2 emissions during operation to be important.

**Medium- and Long-term Environmental Goals**

In order to further strengthen our initiatives toward the environment in our products, plants and offices, we have set the following medium- and long-term environmental goals.

**Long-term Environmental Goals (2050)**

As a leading corporation in environmental management, Tokyo Electron works actively to conserve the global environment. We will realize net zero by proactively promoting the reduction of environmental burden of both our facilities and products. We strive to contribute to the development of a dream-inspiring society by providing evolutionary manufacturing technologies that effectively reduce the power consumption of electronic products.

In fiscal 2022, we identified CO2 emissions during the use of our reference products and set a road map for each product with goals for fiscal 2031. We then set company-wide goals for different levels and carried out these improvement activities. Any issues identified through these activities are reviewed by the Global Environment Council and reported to the Manufacturing Companies Presidents’ Council. We were once again free from environmental incidents, accidents, violations and legal proceedings in fiscal 2022.

**Initiatives to Reduce Water Consumption**

With the growing importance of water resource preservation, we use WRI Aqueduct fresh water resource quantity indicators to conduct water risk assessments in Japan and overseas. In addition, we confirm the status of water resource use in the supply chain, rainwater and wastewater management and goal setting with suppliers once a year.

We have established an annual sustainability goal of maintaining the same water consumption level of the base year (fiscal 2012 for plants and offices in Japan and a fiscal year of their choosing for each overseas operation). Our ongoing efforts to achieve these goals include reusing pure water from our manufacturing operations, installing water-saving devices, watering lawns with rainwater and implementing the intermittent operation of cafeteria faucets.

**Reduction in CO2 Emissions through the Introduction of Renewable Energy**

In fiscal 2022, as a consequence of the operation of new buildings and an increase in water consumption associated with product development and evaluation, water consumption amounted to 147,000 m³, up 1% year-on-year. However, water consumption per net sales was down 29% year-on-year. Moreover, in terms of our goals at each plant and office in Japan and overseas, we achieved 7 of the 14 goals.

In recognition of these efforts, we were selected as a prestigious A List company in the CDP* Water Security Category of the survey in December 2021.

* CDP: An international environmental non-profit organization (NPO) founded in the United Kingdom that conducts surveys on climate change and water security measures on private companies and municipalities and publishes the results.

**CO2 Emissions across the Value Chain**

<table>
<thead>
<tr>
<th>Conference Name</th>
<th>Participants</th>
<th>Function</th>
<th>Meeting Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Environment Council</td>
<td>Appointed members by the executives of headquarters and the Group companies</td>
<td>Set individual goals related to energy management, monitor progress, work to achieve our goals</td>
<td>Twice annually</td>
</tr>
<tr>
<td>TEL Corporate Environment Council</td>
<td>The GM in charge of the environment and department heads, etc.</td>
<td>The promotion of environmental activities across the entire Group, set company-wide goals</td>
<td>Appropriately</td>
</tr>
<tr>
<td>Council for the Regular Reporting of Environmental Activities</td>
<td>CEO, corporate directors in charge of the environment</td>
<td>Report on matters discussed at the Global Environment Council and the TEL Corporate Environment Council and renew items for approval</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Manufacturing Companies Presidents’ Council</td>
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<td>Monitor and supervise progress related to environmental issues</td>
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**Medium-term Environmental Goals (Fiscal 2031)**

We strive to contribute to the development of a dream-inspiring society by providing evolutionary manufacturing technologies that effectively reduce the power consumption of electronic products.

- **CO2 emissions reduction goals**
  - Products
  - Plants and offices
  - **30% reduction** (compared to fiscal 2022)
  - **70% reduction** (compared to fiscal 2016)

**Long-term Environmental Goals (2050)**

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</tr>
<tr>
<td>Council for the Regular Reporting of Environmental Activities</td>
<td>CEO, corporate directors in charge of the environment</td>
<td>Report on matters discussed at the Global Environment Council and the TEL Corporate Environment Council and renew items for approval</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Manufacturing Companies Presidents’ Council</td>
<td>Presidents, directors in charge of the environment, etc.</td>
<td>Monitor and supervise progress related to environmental issues</td>
<td>Quarterly</td>
</tr>
</tbody>
</table>
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 ongoing disclosures.

In fiscal 2022, in addition to the previous fiscal year’s study, we examined the 1.5 °C scenario, which limits the average global temperature increase to less than 1.5 °C above pre-industrial levels.

Status of Initiatives Related to Recommendations of the TCFD

- Governance
  - We have established the Environment Promotion Department and the Corporate Sustainability Management Department at our headquarters, and the entire Group is pursuing initiatives for the TCFD recommendations.
  - Under the supervision of the CEO, the corporate director and executive officer in charge of the environment and sustainability give reports to the Board of Directors on our responses to climate change-related risks and opportunities and progress toward our goals, and conduct reviews.
- At the Global Environmental Council, comprised of members appointed by executives of the headquarters and the Group companies, goals are set, progress is monitored and the achievement of these goals is promoted.
- Strategy
  - 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:
    - Location of plants and offices
    - Occurrence of natural disasters caused by climate change and status of damages
    - Demands from customers, industries, and investors
    - Government policies and regulations and taxation
    - Technological trends relating to renewable energy and energy saving
    - Climate-change scenarios predicted by external agencies and research results

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. Also, on the opportunity side we identified proactive initiatives to address climate change through R&D. In response to these risks and opportunities, we will implement the findings from our scenario analysis into our business strategies and establish medium- and long-term environmental goals, while also pursuing the adoption of renewable energy and the reduction of greenhouse gas emissions strategies across the entire supply chain.

We will increase our resilience (responsiveness to climate change) as a company by critically reviewing the identified risks and opportunities and our responses thereto, and ensure that response measures are implemented.

We utilize enterprise risk management to identify a wide range of risks arising in business activities, and classify “Environmental issues” including climate change as a key risk having high impact and probability of manifestation. We formulate and execute measures to minimize this risk, monitor the effect of said measures and work to understand the status of risk control, and implement the PDCA cycle for management.

Short-, medium- and long-term corporate risk management initiatives that related divisions and councils recommend are deployed to 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.

For Scope 1 and 2 CO2 emissions, in addition to implementing measures to reduce CO2 emissions at our key manufacturing sites in Japan, with high emissions, we are pursuing the adoption of renewable energy on a global scale.

For Scope 3 emissions, we recognize the importance of providing products that generate fewer CO2 emissions because about 97% of the emissions in our entire value chain are generated during use of products after sale, so we are focusing on development of a range of environmental technologies.

We also formulate business continuity plans (BCPs) in anticipation of natural disasters caused by abnormal weather and other factors, and take measures with our suppliers to ensure that business operations can be maintained.

Metrics and Targets

We are pursuing the following initiatives for the development of a data-driven society and preservation of the global environment:

- With our semiconductor production equipment technology, we will contribute to enhancing the performance and reducing power consumption for semiconductor devices being used around the world.
- Initiatives for our medium- and long-term environmental goals:
  - In order to achieve our long-term environmental goals of realizing net zero by 2050, we have established the following medium-term environmental goals and are carrying out various activities.
    - Reducing our emissions: a 70% reduction in total CO2 emissions for plants and offices (by fiscal 2031, compared to fiscal 2019), a rate of 100% renewable energy usage at plants and offices (by fiscal 2031), and reducing energy consumption by 7% year-on-year at each plant and office (per-unit basis).
    - Reducing other emissions: a 30% reduction in CO2 emissions per wafer when using products (by fiscal 2031, compared to fiscal 2019)
    - Reducing the volume of water resources used and the burden of logistics, etc.
- We launched “E-COMPASS” in June 2021 as an initiative to build sustainable supply chains, and are promoting technological innovations for semiconductor and reducing environmental impacts.
- Anticipated Risks and Opportunities of Climate Change Impact and Our Response

<table>
<thead>
<tr>
<th>Type (Scenario)</th>
<th>Transition Risks (1.5°C Scenario)</th>
<th>Physical Risks (4°C Scenario)</th>
<th>Opportunity (Common)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short- to medium-term</td>
<td>- Increased energy costs due to taxes levied on fuel and energy. Assuming our greenhouse gas (GHG) emissions (Scope 1-3) are 102,000 ton/year in fiscal 2022 (leaving a carbon tax of 27,500 yen per ton of CO2), we estimate our energy costs would increase by 700 million yen/year by fiscal 2026 (assuming a carbon tax of 42,500 yen per ton of CO2).</td>
<td>- Increased energy costs due to taxes levied on fuel and energy. Assuming our greenhouse gas (GHG) emissions (Scope 1-3) are 102,000 ton/year in fiscal 2022 (leaving a carbon tax of 27,500 yen per ton of CO2), we estimate our energy costs would increase by 700 million yen/year by fiscal 2026 (assuming a carbon tax of 42,500 yen per ton of CO2).</td>
<td>- Accelerate drive for major renewal, including innovation toward development of new semiconductor products and services, and environment technologies that contribute toward the improvement of power consumption devices.</td>
</tr>
<tr>
<td>Medium- to long-term</td>
<td>- Decreased net sales if we are unable to meet customers’ requirements and demands to address the environment.</td>
<td>- Impacts on our suppliers and customers from abnormal weather (net sales decrease as a result of supply chain disruptions, operation stoppages, production/shipping delays, and other factors).</td>
<td>- Develop semiconductor production equipment technology that contributes to enhanced performance of semiconductor devices and lowers power consumption.</td>
</tr>
</tbody>
</table>
- **Risk Management**
  - We are promoting energy-saving and the adoption of renewable energy in the supply chain.
  - We publish the progress of efforts to achieve the medium-term environmental goals in the Integrated Report and Sustainability Report.
  - By expressing our approval of the TCFD and utilizing its framework, we are conducting risk management and promoting information disclosures.

In fiscal 2022, in addition to the previous fiscal year’s study, we have also adopted these initiatives to reduce the economic burden from fiscal 2022 levels due to the introduction of a carbon tax.

We are taking various response measures as we endeavor to make
disclosures.

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disclosures.
Human Rights

Approach to Human Rights
We at Tokyo Electron are conscious of our corporate social responsibility, and we recognize that it is important to conduct ourselves with a strong sense of integrity. Based on this recognition, 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 means a significant undertaking, not only to fulfill our responsibility for eliminating adverse impacts on people caused through business activities but also to respect those people who support our business activities, and contribute 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 Initiatives

We ensure that our executives and employees, as well as suppliers, are fully aware of this content. Specifically, we publish the Human Rights Policy on our website and also implement online training targeting all of our executives and employees.

Initiatives which Align with the United Nations’ Guiding Principles on Business and Human Rights

We identify human rights risks and conduct human rights due diligence, developing remediation actions every year. In fiscal 2022, we unified the survey contents with reference to the RBA auditing standards, and surveyed 12 companies out of the entire Group in Japan and overseas, including the head office, and approximately 650 business partners involved in materials, staffing, customs services, packaging, etc.

Consequently, potential/actual risks (Priority/Major/Minor) turned out to be 17% of our Group companies and 12% of suppliers, with labor- and health- and safety-related risks comprising the majority of the risk breakdown. In the area of labor, items including the formulation of policies and procedures pertaining to thorough management of working hours and the employment of student workers, interns and trainees were identified as risks. In the area of health and safety, items including the implementation of evacuation drills for all workers and deployment of trained emergency response personnel were identified as risks.

With regard to these identified risks and their impact, inside our Group companies we are conducting checks at each of our sites based on feedback sheets, and implementing a remediation program to review the execution of working hours management, formulate various policies and procedures, carry out evacuation drill initiatives, and address ethics and management systems. To our suppliers, using feedback sheets we provide reports on the potential/actual risks identified in the survey and are working on remediation activities to reduce these risks.

In addition, the percentage of companies where no potential/actual risks are considered to exist (conformance) was 80% for our Group companies and 73% for our suppliers.

Furthermore, we recognize the importance of having highly effective grievance mechanisms related to human rights and are working to establish reporting systems for employees and suppliers in Japan and abroad, and to further strengthen the operation of those mechanisms. By adopting highly justified and fair grievance mechanisms, we are identifying adverse human rights impacts at an early stage and building mechanisms to help remediate them.

Going forward, in addition to proactively deploying human rights-related initiatives and further enhancing their efficacy and transparency, we will work to reduce human rights risks in our companies and in our supply chain.

2 RBA Code of Conduct: A set of standards established by the RBA (Responsible Business Alliance) for supply chains in electronics industry for a safe labor environment, ensuring that workers are treated with respect and dignity and that companies are responsible for environmental impact in the manufacturing process.
3 Refer to Compliance on p. 60

Percentages of Conformance and Potential/Actual Risks (Priority/Major/Minor)4

![Percentages of Conformance and Potential/Actual Risks](image)

1 Our classifications and definitions of conformance as well as potential/actual risks based on RBA auditing standards are as follows.

Priority: Issues considered particularly serious, which are at significant risk and require immediate priority remediation

Major: High-urgency issues which are at significant risk and require immediate remediation

Minor: Issues and risks recognized in each area which require remediation

Conformance: No issues were recognized in each area and requirements are being met

N/A: Indicates that “listed options do not resemble actual circumstances, or that the question is not applicable.”

![Suppliers](image)

![Internal](image)
Chapter 3 Value Creation by the Value Chain

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. To identify issues in the supply chain from a variety of perspectives, we also value ongoing communication with diverse suppliers, including materials suppliers that handle parts and raw materials; staffing suppliers that provide services and logistics suppliers that handle physical distribution operations. Under the leadership of the CEO, any identified issues are shared with relevant divisions and efforts are made to implement concrete measures for improvement. We will continue to strive to create value in the supply chain by working to build relationships of trust with our suppliers, who support our business as partners, and by working together to conduct operations in compliance with global standards.

Initiatives in the Supply Chain

- **Sustainability Operations**
  To keep track of our suppliers’ engagement in sustainability, we have conducted a sustainability assessment in areas such as labor, health and safety, the environment and ethics since fiscal 2014. We analyze the assessment results, provide feedback to suppliers, and together, promote initiatives for improvement as required. In fiscal 2019, we completely revised the content of the survey based on audit standards stipulated by the RBA, and in addition to materials suppliers, included staffing1 and logistics2 suppliers in the scope of surveys.

- **Procurement BCP**
  As part of our business continuity plans (BCPs), we collaborate with suppliers on ongoing disaster preparation. 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. During fiscal 2022, approximately 24,000 supplier sites were registered, and we conducted 11 post-disaster impact surveys. In addition, we conduct BCP assessments on our suppliers and analyze their responses to provide them with feedback so that they can promote improvements in areas of concern.

- **Responsible Procurement of Minerals (Conflict Minerals)**
  We see taking action against conflict minerals (3TG) 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 surveys on potential conflict minerals using the CMRT3 and referring to the OECD4 Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. In fiscal 2022, we conducted our eighth annual survey on potential conflict minerals. As a result, we were able to identify 243 RMAP5 conformant smelters, providing us confidence that 3TG sourced from these smelters were conflict-free. In addition, none of the materials we procured were found to contain 3TG involved in conflict.

1. Materials suppliers: Surveys have been conducted since fiscal 2014 for suppliers accounting for more than 80% of our procurement spend.
2. Staffing suppliers: Surveys have been conducted since fiscal 2019 on 100% of employment agencies and contracting companies (internal contractors).
3. Logistics suppliers: Surveys have been conducted since fiscal 2019 on 100% of customs-related operators.

Safety

Approach to Safety
Under the “Safety First” slogan, everyone at Tokyo Electron, from top management to on-site personnel, is actively and continuously improving safety and promoting health, giving safety and health the highest priority when carrying out various types of operations such as development, manufacturing, transportation, installation and maintenance.

Safe Design of Equipment
Taking the entire product life cycle into consideration, we carry out product risk assessments as early as possible in the development phase. We implement safe design equipment 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, SEMI6 2, and CE Marking7 on the equipment we ship. We have also established a system to comply with safety regulations of the regions where our equipment is delivered while working with overseas companies.

New Incident Prevention Initiatives
We are deploying the following new activities with the aim of creating a safer working environment.

- **Safety Education Using VR (Virtual Reality)**
  We are striving to increase danger awareness and prevent incidents by implementing safety education using realistic simulated experiences such as falling from a high place, falling down stairs, electric shock and incidents caused by getting trapped between objects. We are also building a system that allows multiple people to take courses at the same time by developing our own interactive VR system.

- **Pocket-edition Work Safety Rules**
  We have turned basic rules for work safety into pamphlets the size of a business card and distributed them to all employees involved in the work. The pamphlets are made from materials that can be viewed even in clean rooms and are available in Japanese, English, Korean and Chinese.

- **Shortening Equipment Start-up Time**
  We are promoting the development of safer equipment and working to shorten the time from installation to operation. By reducing work times and types of work, we are aiming to reduce the frequency of mistakes and incidents at sites.
Chapter 3 Value Creation by the Value Chain

Quality

Initiatives for Quality Improvement
In order to help each of our employees correctly understand and implement quality assurance activities, we reiterate the importance of clearly defining the ideal form of quality assurance (goals), along with creating an environment and culture for widely disseminating it. From the ideal form, we established “Our Approach to Quality” and communicate the importance of quality to our employees at various opportunities to increase their quality awareness. We are establishing rules for what has to be done in quality assurance activities as well as correctly implementing those rules. In addition, to ensure that our employees are always aware of their roles and purposes and perform their work, we are striving to make the rules comprehensive, easy to understand, and deploy. We have also built a system that allows One Platform to view information such as past problems, adjustment values used during manufacturing and assembly, and important component inspection information from suppliers, and have successfully strengthened risk management (FMEA). By thoroughly implementing these self-process assurance systems and prevention measures, it creates time for employees to focus on high-value-added business operations and promotes initiatives for Shift Left (front-loading).

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 ensuring in-process quality control, from the design and development phase throughout every process.

3. Quality 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 strive to implement self-process assurance systems by carrying out strict quality-related risk management and development/design inspections beginning at the development stage, and also by ensuring thorough verification of customers’ operations using simulations. We have also built an important component traceability system to strengthen our information environment. Specifically, to prevent various types of non-conformance, we have implemented a system that allows One Platform to view information such as past problems, adjustment values used during manufacturing and assembly, and important component inspection information from suppliers, and have successfully strengthened risk management (FMEA). By thoroughly implementing these self-process assurance systems and prevention measures, it creates time for employees to focus on high-value-added business operations and promotes initiatives for Shift Left (front-loading).

- One Platform: A platform that makes it possible to easily view multiple different systems as seamless information sources, in order to effectively and efficiently achieve traceability.

Approach to Quality
We define our approach to quality in the following way: “The Tokyo Electron Group seeks to provide the highest-quality 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.” We strive to implement 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 ensuring in-process quality control, from the design and development phase throughout every process.

3. Quality 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.

Quality Management
We have established the TEL Manual (TM) and TEL Guidelines (TG) based on our company-wide quality policy for each major business category, including development, design, manufacturing, and sales, and are deploying them to the entire Group, including manufacturing sites, as well as suppliers.

Each of our manufacturing sites has established a quality management system based on the TM and TG and have acquired the international standard ISO 9001:2015. With the Quality Assurance Division as the core, we are striving to continuously improve our quality management system by setting annual quality goals based on the results of the previous fiscal year and assessing and improving based on periodic reviews, as well as by effectively operating the PDCA cycle through repeated audits by internal auditors as well as third-party organizations. In addition, the Quality Assurance Division is in charge of determining shipping risks of evaluation machines and reviewing the transition to mass production in the development process. To ensure the stable supply of parts in the mass production process, we employ methods such as using a statistical method to control process abnormalities as well as making strict shipping judgments to prevent defects from leaking into the market. We promote the realization of self-process assurance and maintenance and improvement of product quality in the upstream processes, providing high-quality and high-value-added products and services leading to the continuous improvement of customer satisfaction.

Continuous Improvement of Business Operations
We are introducing a new enterprise system (ERP) to further improve productivity and quality. The new ERP, being operated across operational and national boundaries, is aimed at creating the following five benefits: (1) compliance with the new revenue recognition standards; (2) management decision-making with quick response to change; (3) large improvements in business operation efficiency; (4) utilization of globally integrated information with an eye toward digital transformation; and (5) streamlining of the business system.

In fiscal 2022, we started with introduction of the new ERP at headquarters, and completed (1) compliance with the new revenue recognition standards. From fiscal 2023 onward, we will take full advantage of the knowledge gained in the process of introducing the system at headquarters, and gradually introduce the system at manufacturing sites in Japan and at overseas subsidiaries. In addition, along with the aim of realizing a globally integrated system, we will work with our partner companies to improve operations, increase efficiency, and develop functions to further enhance system performance.

1. ERP: Enterprise Resource Planning. A system that integrates the core business operations of an enterprise, such as accounting, personnel, production, logistics, sales, and IT, into a single system.

2. New revenue recognition standards: New Accounting Standard for Revenue Recognition that establishes rules for calculating sales in financial statements, and which became applicable to listed companies, etc. from April 2021.

Overview of the New Enterprise System

- Sales CRM (Opportunities and Forecast)
- Scheduler (Plan)
- Product Life Cycle Management (Design)
- Supply Chain Management (Procurement)
- Manufacturing Execution System (Manufacturing)
- Warehouse Management System (Warehouse)
- Global Trade Management (Export)
- Service CRM (Field Support)

Key Processes

- Sales CRM
- Scheduler
- Product Life Cycle Management
- Supply Chain Management
- Manufacturing Execution System
- Warehouse Management System
- Global Trade Management
- Service CRM

Key Processes

- ERP (Sales, Inventory, Accounting)
- Customer: Operations, Forecast, Product Planning, Production, Design, Booking, Procurement, Maintenance, Delivery, Start-up, Technical Acceptance, Sales, Warranty, Service CRM, Post-sale

-Warehousing
- Manufacturing
Human Resources

Employees Both Create and Fulfill Company Values

Tokyo Electron operates in 77 sites in 18 countries and regions. 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. In addition to implementing a common global job-based human resource system (GTC: Global TEL Career-paths) and this system, we are also focusing on global human resource management to promote career advancement under a common platform without biases against any country or the Group companies affiliation. This allows us to report changes in human resource allocation, human resource management, and corporate performance and allocates resources, in an agile and optimal manner.

We believe that each of the 15,634 employees who work at our company maintaining a high level of engagement and demonstrating their full potential will lead directly to our growth as a company. By sharing with our employees the direction toward which management is aiming and providing platforms for direct dialogue through the employee meetings and employee engagement surveys, we can in return understand the views of our employees.

Practicing Motivation-oriented Management

Importantly, we have established the Human Resource Development Concept at TEL UNIVERSITY that allows employees to learn when they need it, anywhere, anytime. This on-demand education system, which delineates Tokyo Electron’s values, the mindset that each employee must possess and the codes of conduct to be passed on to the future. The TEL Values — pride, challenge, ownership, teamwork and awareness — are being put into practice by our employees all over the world.

We believe that our corporate growth is enabled by people, and our employees both create and fulfill company values. Based on this approach, we practice motivation-oriented management. We actively invest in our employees and implement important measures such as below while also providing many opportunities for employees to challenge themselves to achieve high-level goals by making the most of their individual potential.

- Formulating a new Vision and promoting TSV (TEL’s Shared Value)
- Setting world-class financial targets in the new Medium-term Management Plan
- Making plans to invest more than 1 trillion yen in research and development in years
- Executing ESG initiatives aimed at corporate value enhancement
- Offering opportunities to gain global work experience and acquire wide-ranging knowledge
- Operating a shared global human resource system
- Introducing a performance-based compensation system
- Developing human resource education program using TEL UNIVERSITY
- Sharing the CEO vision and the mid-term management plan with employees
- Increasing opportunities for meetings between employees and the GM of each department.

Human Resource Development Concept at TEL UNIVERSITY

We have established TEL UNIVERSITY as an in-house educational establishment, helping employees to independently build their careers and realize their personal goals for their growth and development. We are promoting the following initiatives and focusing on the development of human resources who are essential to our development.

- Provision of Global and On-demand Learning Opportunities

Since each employee’s growth is different, we are implementing on-demand education that allows employees to learn when they want according to their own needs. In addition to group training and active utilizing of e-learning programs and providing a common platform from learning from any location in the world.

- Support for Career Development

We are expanding our education programs to help employees quickly acquire basic skills. We also provide information and tools discussions held at each site, we are striving to build mutual trust between the organization and individuals. Furthermore, to realize our Corporate Philosophy, we established TEL Values, which delineate Tokyo Electron’s values, the mindset that each employee must possess and the codes of conduct to be passed on to the future. The TEL Values — pride, challenge, ownership, teamwork and awareness — are being put into practice by our employees all over the world.

We believe that our corporate growth is enabled by people, and our employees both create and fulfill company values. Based on this approach, we practice motivation-oriented management. We actively invest in our employees and implement important measures such as below while also providing many opportunities for employees to challenge themselves to achieve high-level goals by making the most of their individual potential.

Five Perspectives for Motivation-oriented Management

- Awareness that our company and work contributes to society
- Dreams and expectations of the Company’s future
- Opportunities to take on challenges
- Fair evaluations that recognize employee efforts and globally competitive rewards
- Workplace with open atmosphere and positive communication

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. Based on the results of the surveys, we make improvements to foster a better workplace environment and culture by increasing opportunities for dialogue between management and employees as well as continuously communicating messages that emphasize safety, quality, and compliance. These initiatives resulted in an increase in the overall employee engagement score from 12 points to 2022 fiscal 2023, a high level even on a global scale.

We will continue these initiatives, such as clarifying career paths and improving operational efficiency through digital transformation, since we believe that improving employee engagement is important to providing increased value to our stakeholders.

Diversity and Inclusion

At Tokyo Electron, diversity and inclusion are management pillars that lead to the continuous generation of innovation and increased corporate value. We are actively promoting them with the strong commitment of our management. We have taken on gender, nationality and generation as major themes and set the following goals based on the characteristics of each region.

- In terms of succession planning, we conduct a diversity-conscious talent pipeline (plan for developing human resources), and are implementing initiatives to achieve the goal of increasing the ratio of female managers to 8.0% globally and 5.0% in Japan by fiscal 2027 (as of March 31, 2022: globally 5.5% and in Japan 2.6%).

* Retention rate is calculated using data on turnover rate.

1 Include experts in the number of managers

2 The ratio of female managers in science or engineering

Ratio of Female Managers

<table>
<thead>
<tr>
<th>Year</th>
<th>Japan</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022 3</td>
<td>5.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td>2027 3</td>
<td>(goal)</td>
<td>(goal)</td>
</tr>
</tbody>
</table>

Employee Engagement Survey Process

- Fostering a better workplace environment and culture
- Communication of messages emphasizing safety, quality and compliance

Diversity and Inclusion Day

Diversity and Inclusion Day, an online event with simultaneous streaming for Group companies worldwide, was held in February 2022. In his opening speech, the CEO stated, “We need to incorporate all wisdom and diverse ideas to maximize the growth potential of the entire Group. In order to do this, it is essential to promote diversity and inclusion.” In addition, members from the U.S. including the president of Tokyo Electron America spoke about the importance of diversity and inclusion at a talk session. From Japan, two outside directors participated in a panel discussion regarding the roles of the company in a rapidly changing global society. Through this event, the importance of embracing and making the most of diversity was once again confirmed.

1.0% in Japan by fiscal 2027 (as of March 31, 2022: globally 5.5% and in Japan 2.6%).
Corporate Governance

Corporate Governance System

Basic Stance
We regard building corporate governance structures as important for achieving success in global competition and realizing sustainable growth. To this end, we have built a structure for utilizing 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 established the Corporate Governance Guidelines 1 and outlined the corporate governance structures that we have developed and reinforced ahead of other companies.

Further Development of Corporate Governance

We use the Audit & Supervisory Board System, which consists of a Board of Directors and an Audit & Supervisory Board, and have achieved effective governance based on the supervision of management by the Audit & Supervisory Board.

In April 2022, we transitioned to the Prime Market of the Tokyo Stock Exchange and took the following actions reinforcing corporate governance to respond to the expectations of capital markets including compliance with the Corporate Governance Code and to enhance corporate value even further.

1. Corporate Governance Guidelines: www.tel.com/about/cg/

Changes in Corporate Governance (Since CY1998)

<table>
<thead>
<tr>
<th>Year</th>
<th>Composition</th>
<th>Chairperson</th>
<th>Meeting Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>One inside director and two outside directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>1999</td>
<td>One inside director and two outside directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2000</td>
<td>Two directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2001</td>
<td>Two directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2002</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2003</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2004</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2005</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2006</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2007</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2008</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2009</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2010</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2011</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
<tr>
<td>2012</td>
<td>Three directors</td>
<td>Outside director</td>
<td>Once a month in principle</td>
</tr>
</tbody>
</table>

Corporate Officers Meeting

The highest-level decision-making body on the executive side, established in June 2022.

Composition: Six corporate officers

Chairperson: Six corporate officers

Meeting Frequency: Once a month in principle

Corporate Governance Framework

Board of Directors

Composition: Three inside directors and three outside directors

Chairperson: Corporate officers also attend meetings to give explanations and reports, etc.

Meeting Frequency: 12 in fiscal 2022

Audit & Supervisory Board

Composition: Two full-time Audit & Supervisory Board members and three outside Audit & Supervisory Board members

Chairperson: Full-time Audit & Supervisory Board member

Meeting Frequency: 9 in fiscal 2022

Nomination Committee

Composition: One inside director and two outside directors

Chairperson: Outside director

Meeting Frequency: 10 in fiscal 2022

Deliberation Topics: Appointment and dismissal of corporate directors and the CEO, candidates of independent outside directors, status of successor development, other topics

Compensation Committee

Composition: One inside director and two outside directors

Chairperson: Outside director

Meeting Frequency: 10 in fiscal 2022

Deliberation Topics: Policies concerning determination of individual compensation for corporate directors and others and the details of compensation, compensation of individual remuneration, etc. of representative directors, other topics

Committees on the Executive Side

- Business Ethics Committee
- Sustainability Committee
- Risk Management Committee

COS (Corporate Senior Staff)

Revises progress management and implementation of management plans from a global perspective.

Composition: Executive officers, management executives of overseas subsidiaries and others

Meeting Frequency: Once a quarter
Establishment of the Director Compensation System

Basic Policy on Evaluations of Effectiveness

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

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

Overview of Compensation

The table below provides an overview of the compensation and policies for each type of compensation.

<table>
<thead>
<tr>
<th>Type of Compensation</th>
<th>Respondent</th>
<th>Report by external experts</th>
<th>Meetings for exchanges of opinions by outside directors and outside Audit &amp; Supervisory Board members</th>
<th>Deliberations at internal meetings</th>
<th>Discussion and self-evaluation by the Board of Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Basic Compensation</td>
<td>CEO &amp; Inside Directors</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Cash Bonus</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Performance Share (Bonus Compensation)</td>
<td>Outside Directors</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Restricted Stock Units (Bonus Compensation)</td>
<td>Outside Directors</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Stock Compensation - Stock Options</td>
<td>Executive Officers</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Advanced Initiatives Relating to Director Compensation

Shareholding Guidelines

We have established the Shareholding Guidelines (effective July 1, 2021) to further ensure that management’s interests align with those of stakeholders in pursuit of sustainable enhancement of corporate value. We have set targets for management to hold company shares equal to the following within five years after the effective date of the guidelines or appointment.

- Effective date of the guidelines or appointment.
- Company shares equal to the following within five years after the corporate value. We have set targets for management to hold
- We have established the Shareholding Guidelines (effective July 1,

Clawback Policy

We have enacted a clawback policy (effective July 1, 2021) whereby we can demand reimbursement of a reduced performance-compensation-linked compensation or medium-term performance-compensation-linked compensation if financial figures are found to be in need of major correction due primarily to the willful misconduct of an executive director or corporate officer.

- The amount of compensation subject to refund is the excess portion of the performance-compensation-linked received in the fiscal year in which such misconduct was found as well as the three preceding fiscal years.

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. Since fiscal 2019, we have used external experts as a third-party organization to verify the status of initiatives relating to issues identified in the preceding fiscal year, identify future issues and work toward continuous improvement.

Evaluation of the Effectiveness of the Board of Directors for Fiscal 2022

Scope of Evaluation

Board of Directors’ Overall (including details of the activities of the Nomination Committee and Compensation Committee

Process

Survey administered to all corporate directors and Audit & Supervisory Board members

Interviews of all corporate directors and Audit & Supervisory Board members by external experts

Main Topics for the Board of Directors and Off-site Meetings in Fiscal 2022

- Improvement of risk management processes
- Active policies concerning sustainability and diversity
- Reports on investment in human capital and intellectual property activities
- Status of investment targets and cross-shareholdings and status of IR activities
Chapter 3 Value Creation by the Value Chain

Skills Matrix

We define “Product Competitiveness,” “Customer Responsiveness,” “Higher Productivity,” and “Management Foundation,” which supports our overall business activities, as material issues. We will address priority themes relating to each material issue and achieve expansion of medium- to long-term profit and continuous corporate value enhancement by each corporate director and Audit & Supervisory Board member demonstrating their skills in global business, governance, sustainability, and in particular, the areas listed below:

### Definition of Expected Skills

<table>
<thead>
<tr>
<th>Expected Skills</th>
<th>Corporate Management</th>
<th>Semiconductor/FPD</th>
<th>Manufacturing/Development</th>
<th>Sales/Marketing</th>
<th>Finance, Accounting/Engagement with Capital Markets</th>
<th>Legal Affairs/Risk Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toshiki Kawai</strong></td>
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<tr>
<td><strong>Sadao Sasaki</strong></td>
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<tr>
<td><strong>Yoshikazu Nunokawa</strong></td>
<td>![ ]</td>
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<tr>
<td><strong>Michio Sasaki</strong></td>
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<tr>
<td><strong>Sachiko Ichikawa</strong></td>
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<tr>
<td><strong>Yoshiteru Harada</strong></td>
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<tr>
<td><strong>Kazushi Tahara</strong></td>
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<tr>
<td><strong>Masatake Hama</strong></td>
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</tr>
</tbody>
</table>

*Definition of Expected Skills*

- **Corporate Management**
  - Experience of corporate management (experience serving as a representative director or chairman/president)
- **Semiconductor/FPD**
  - Knowledge of semiconductor/FPD-related industries
- **Manufacturing/Development**
  - Knowledge/experience in manufacturing and development at Tokyo Electron and other manufactures
- **Sales/Marketing**
  - Knowledge/experience in sales and marketing at Tokyo Electron and other manufactures
- **Finance, Accounting/Engagement with Capital Markets**
  - Knowledge in financial accounting and M&A, or knowledge/experience in engagement with capital markets
- **Legal Affairs/Risk Management**
  - Knowledge in legal affairs, compliance and risk management

### Diversity of Board Members

- **Expected Skills of Corporate Directors and Audit & Supervisory Board Members**
  - Corporate Management: 6
  - Semiconductor/FPD: 6
  - Manufacturing/Development: 5
  - Sales/Marketing: 6
  - Finance, Accounting/Engagement with Capital Markets: 6
  - Legal Affairs/Risk Management: 4

### Independence and Diversity of Corporate Directors

- **Independent Directors**: 3/6
  - Female Corporate Directors: 2/6
  - Corporate Officers: 4/6

### Directors, Audit & Supervisory Board Members and Corporate Officers (As of July 1, 2022)

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

- **Sadao Sasaki**
  - Representative Director
  - Senior Executive Vice President
  - Corporate Officer

- **Yoshikazu Nunokawa**
  - Corporate Director
  - Chairman of the Board of Directors

- **Michio Sasaki**
  - Director and Vice President
  - Audit & Supervisory Board Member
  - ZUKI CORPORATION

- **Makiko Eda**
  - Chief Representative Officer
  - Audit & Supervisory Board Member
  - Fujifilm Holdings Corporation

- **Sachiko Ichikawa**
  - Partner, Tanabe & Partners
  - Audit & Supervisory Board Member
  - MITSUOKA CORPORATION

- **Yoshiteru Harada**
  - Audit & Supervisory Board Member

- **Kazushi Tahara**
  - Audit & Supervisory Board Member

- **Kyooyke Wagai**
  - Outside Director
  - Audit & Supervisory Board Member

- **Masatake Hama**
  - Outside Director
  - Audit & Supervisory Board Member

- **Ryota Miura**
  - Outside Director
  - Audit & Supervisory Board Member

- **Tatsuya Nagakubo**
  - Corporate Officer

- **Sensu Ikeda**
  - Corporate Officer

- **Yoshinobu Mitano**
  - Corporate Officer

- **Takeoshi Okubo**
  - Corporate Officer
Chapter 3 Value Creation by the Value Chain

Messages from Outside Directors

Michio Sasaki
Independent Outside Director (Nomination Committee Chairman)

Contributing with an awareness of priorities, balance and speed to expand profits and increase corporate value

Tokyo Electron’s corporate culture, Corporate Philosophy, Management Policies and TEL Values, which are one of the sources of its competitiveness, are clearly reflected in the Board of Directors, and there is an open, candid and active exchange of opinions. I believe that carefully listening to the opinions of outside directors and Audit & Supervisory Board members, speedy and high-quality execution and organizational values have contributed to high evaluations of the effectiveness of the Board of Directors every year.

The explanation of business performance and other important matters in the CEO reports at each Board of Directors meeting is detailed, easy to understand and helpful in gaining an overall understanding. Off-site meetings are also valuable opportunities to deepen understanding of matters such as medium- to long-term management strategies and development investments through in-depth explanations and discussions, so I would like the company to continue these going forward.

I would like to utilize the management experience I have accumulated in the development and manufacturing industry until now as well as my current experience in the IT industry to continue to contribute as an outside director. I would like to do this with a particular awareness of whether our priorities, balance and speed are optimized in order to expand profit and improve corporate value, including ESG, SDGs, development investment, DX, human resource development and risk management such as security in order to achieve our new Medium-term Management Plan.

Role of the Nomination Committee

The most important role of the Nomination Committee is selecting candidates for the next CEO and proposing them to the Board of Directors.

The Nomination Committee holds fair and open-minded discussions every month regarding the creation of a framework to select and develop the next CEO who will inherit Tokyo Electron’s excellent corporate culture, which is the foundation of its growth, and who will achieve both sustainable growth and improved corporate value over the medium to long-term. Specific selection and development frameworks are discussed as part of the Top Management Review Meeting (TRM) consisting of the representative director, the executive officer in charge of human resources and other members, and attended by members of the Nomination Committee. There, the next generation leader development PDCA cycle is reviewed and assignments are determined.

In the next-generation leader development program, the cycle is as follows:

1. A succession planning roadmap is established
2. Executive officers, division general managers and the Human Resources Department select succession candidates and continuously update the succession pool
3. Individual development plans for succession candidates are formulated, followed by the person in charge, capability development through other competitions, and training using TEL UNIVERSITY
4. Review is conducted at TRM

Through this process, we reinforce the leadership, on-site skills, judgment, environmental adaptability and sense of balance of candidates and promote the continuous development of next-generation leaders.

The Nomination Committee consults with the CEO and selects several future CEO candidates, discussing and formulating a roadmap that follows them on the path to becoming CEO. Through this process, we work with the recognition that it is our responsibility to our stakeholders to propose a leader to the Board of Directors who can realize Tokyo Electron’s medium- to long-term growth and expansion of profits.

Makiko Eda
Independent Outside Director

Fostering a culture that embraces diversity and nurturing it to become a strength that is a part of the company’s DNA

Discussions at Tokyo Electron’s Board of Directors are open, fast-paced and lively. I expected Japanese companies to place more of an emphasis on formality, but Tokyo Electron is completely different. Things that need to be discussed are discussed with the necessary depth and internal discussions are becoming more transparent. In my participation in the Board of Directors meeting over the past few years, I have seen that Tokyo Electron is a lively company that continues to evolve, learn and embrace new opportunities to grow without any hesitation.

As the company continues to grow, it is essential to be able to incorporate the talents of people from diverse backgrounds. This was more clearly defined as both a company policy and a growth strategy in 2021. Setting a numerical target is just the first step. The true work is in fostering a culture that embraces diversity, building a framework and nurturing this diversity to become a strength that is part of the company’s DNA.

As Tokyo Electron grows rapidly, we must quickly assess and respond to a variety of opportunities and risks. Semiconductors shape the future, and in this regard, I believe that Tokyo Electron has a significant role to play. From my position as an outside director, I would like to contribute to Tokyo Electron’s sustainable growth from a medium- to long-term perspective.

Sachiko Ichikawa
Independent Outside Director

Governance has performed well to date, however, governance is never complete and always requires improvement

The Board of Directors and its members have a responsibility to shareholders and other stakeholders. This responsibility is not limited to the current fiscal period but rather extends over the medium to long term. Tokyo Electron’s strong performance in fiscal 2022 despite the difficult economic environment can be seen as a product of its corporate governance to date.

At Tokyo Electron’s Board of Directors meetings, the words “investor and shareholder reaction,” “time axis” and “alternative scenarios” appear frequently. This shows that the Board of Directors is looking further and wider while monitoring and supervising the current status of business execution. This perspective is necessary to avoid short-term bias, closed-minded thoughts and a lack of analysis. This receptive approach to listening has made Tokyo Electron what it is today. However, governance is never complete and always requires improvement. Furthermore, the level of uncertainty in the economic environment has increased significantly. The needs of stakeholders are likely different than they have been in the past. I will strive to realize a Board of Directors that has an eye on the future, conducts investments and structure improvements in advance to continue producing good business results, and allows the executive side to fully demonstrate its abilities when opportunities arise.
Risk Management

Approach to Risk Management
We are building and developing a risk management system to respond appropriately and promptly to risks that are growing increasingly complex and diverse as society and the business environment change. We identify cross-division and comprehensive risks across the entire Group to build a solid financial foundation based on an integrated Medium-term Management Plan that is competitive globally. We make decisions and supervise particularly material risks at the Corporate Officers Meeting and the Board of Directors, and implement countermeasures without fail alongside each of the Group companies and related departments.

We believe accurately understanding the risks and impacts that we may face in our businesses with an eye on the future, viewing them as opportunities for business growth and appropriately addressing them is essential to sustainable growth as a company that is trusted by society.

Risk Management System
We have established the organization to oversee the entire Group at our headquarters and carry out enterprise risk management to promote more effective risk management. This organization, together with the respective departments responsible for each operation, comprehensively identifies a wide range of risks associated with our business activities, such as compliance, human resource, labor and business community, and classifies those with high impact and probability as our material risks.

In addition to holding management workshops and training for employees and raising awareness company-wide, we are also working to strengthen the PDCA cycle and improve the effectiveness of risk management by formulating and executing measures to mitigate material risks, monitoring the effect of said measures and holding discussions at major internal meetings. Specifically, we review the response status of the executive department and each of the Group companies regarding the identified material risks at the BUGM meeting, quarterly review meeting and the CSS, etc., and decide a response policy at the Corporate Officers Meeting. We ensure the operating rhythm of the procedure and also report periodically to the Board of Directors.

Additionally, we are continuing to focus on the revision and operation of our BCP, including responses to COVID-19, and are rapidly executing necessary countermeasures. In fiscal 2021, we introduced CSA, with each risk owner of the Group further strengthening risk management in the 13 defined categories. We will continue to implement autonomous and highly effective risk management.

1. Enterprise risk management. Group-wide systems and processes related to risk management activities
   - CSA: Control Self-Assessment. Internal risks and controls are evaluated and monitored by those who are actually performing the duties with the goal of building and maintaining an autonomous risk management system

Auditing by the Internal Audit Department
The Global Audit Center serves as the internal audit department for the entire Group, conducts audits based on plans, provides instructions and support for making improvements to issues and confirms the progress of these improvements.

The Group’s internal control over financial reporting during fiscal 2022 was evaluated as effective by the independent auditors, the same as in the previous fiscal year.

Risk Management Initiatives
We have begun to address emerging risks from a medium- to long-term perspective, going a step further than its conventional approach of assessing the current risk management state, identifying key unknown risks that may surround the company in the future and examining mitigation measures. In fiscal 2022, the 13 risks identified to date were reviewed and reevaluated from the perspective of their potential to have a significant impact on our operating results, capital allocation, and cash flow. We then pushed forward risk management initiatives for each identified risk even further.

<table>
<thead>
<tr>
<th>Item</th>
<th>Main Potential Risks</th>
<th>Main Risk Management Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Market Fluctuations</td>
<td>A rapid contraction of the semiconductor market could lead to overproduction or an increase in debt inventory</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>2. Geopolitics</td>
<td>Geopolitical tensions could undermine the international order and global macroeconomic conditions, affecting national and regional security, foreign, industrial or environmental policy. They could turn into supply chain disruptions or deterioration of the macroeconomic environment, restricting the Company’s ability to operate business</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>3. Research and Development</td>
<td>Periods of 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</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>4. Procurement, Production and Supply</td>
<td>The occurrence of a product defect could lead to liability for damages, costs for customer claims and a decline in Company’s credibility</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>5. Safety</td>
<td>Safety problems within the Company could lead to damage to customers, liability for damages and a decline in the Company’s credibility</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>6. Quality</td>
<td>The occurrence of a product defect could lead to liability for damages, costs for customer claims and a decline in Company’s credibility</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>7. Laws and Regulations</td>
<td>Violations of laws and regulations within the countries and regions where the Company operates could lead to diminishment of public confidence in the Company, fines, liability for damages or restrictions on business activities</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>8. Intellectual Property Rights</td>
<td>The inability to obtain exclusive rights to proprietary technologies could lead to reduced product competitiveness</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>9. Information Security</td>
<td>Breaches of information or the suspension of services due to information security system failure could restrict expansion of business activities</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>10. Human Resources</td>
<td>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 decreased product development capability and customer support quality</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>11. Environmental Issues</td>
<td>The inability to respond appropriately to each country’s climate change policy, 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 increased environmental competitiveness and diminished public confidence in the Company</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>12. Novel Coronavirus (COVID-19)</td>
<td>The spread of COVID-19 could slow the Company’s business activities or lead to a global economic downturn</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
<tr>
<td>13. Other Risks</td>
<td>Business could be influenced by the global and regional political landscape, economic environment, financial and stock markets, foreign exchange fluctuations and other factors</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</td>
</tr>
</tbody>
</table>

We are building and developing a risk management system to formulating and executing measures to mitigate material risks, monitoring the effect of said measures and holding discussions at major internal meetings.
Information Security

As the data-driven society advances and the importance of information security increases, we aim to achieve both data utilization and information security by promoting digital transformation and other measures, and actively promote measures that protect the entire supply chain from the risk of cyberattacks that target companies.

Main Activities

Information Security Systems

The Vice President and General Manager, Information Security, runs the Security Committee and implement measures on a global scale. We hold the TEL Group Information Security Committee twice a year, and Information Security Committees at each company more than twice a year.

Information Security Management

We established global information security rules, and conduct security education twice a year and phishing email training every month for all executives and employees. We hold seminars twice a year to share the latest situation to all Group members. In addition, we implement risk assessments and internal audits for each department of the entire Company to identify risks and strengthen technological, human, organizational and physical security measures.

Responses to Security Threats

We have proactively introduced advanced technology and established a dedicated security organization to build a robust monitoring system in order to respond to security threats such as cyberattacks and information leaks.

Overview of Information Security

Security at Manufacturing Sites

We implement security measures at each manufacturing site to ensure that the manufacturing systems that support our business activities are operating safely and stably while maintaining QCD.

Supply Chain Security

We respond to customer requests for security and monitor the security status of our suppliers to ensure that confidential information and information on our customers and suppliers that is shared in the course of business activities can be used safely without a loss of convenience.

Increasing Resilience

We operate a system that can detect the occurrence of security incidents. We confirm pre-determined procedures so that we can do the right actions for a swift response and recovery by implementing incident response training. We also implement a penetration test once a year to verify system vulnerabilities.

Compliance

Approach to Compliance

To practice Tokyo Electron’s Corporate Philosophy, it is vital that each employee performs their daily duties with strong interest in and a deep understanding of compliance. We established “Tokyo Electron’s Code of Ethics” as a code of conduct to ensure that our employees are aware of the risks around them and conduct themselves appropriately. We have built a global system that can directly raise questions and concerns about compliance and business ethics to quickly address potential problems.

Compliance System

In order to effectively promote a compliance program that is expected of a global company, Tokyo Electron has appointed a Chief Compliance Officer (CCO) and established a dedicated Compliance Department at its headquarters. Additionally, the persons responsible for compliance who called Regional Compliance Controllers have been appointed at key overseas sites, an operation for direct reporting to the Chief Compliance Officer and Compliance Department.

Compliance Initiatives

Business Ethics

Tokyo Electron has established the Business Ethics Committee to promote and raise awareness of compliance and business ethics more effectively together with implementing “Tokyo Electron’s Code of Ethics” as the standard of conduct for all executives and employees. We have also 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.

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. In order to prevent violations, we regularly provide training to promote understanding and awareness of these Policies and Guidelines as well.

Internal Reporting System

Preventing problems from occurring and resolving them quickly when they occur requires a system that allows employees to raise questions and concerns about business ethics and compliance without reservation or hesitation and to discuss them fully. We have established an internal reporting system that ensures complete confidentiality, anonymity and the prohibition of retribution, so that employees can safely and reassuringly provide information and seek redress outside the chain of command about behavior that is, or may be, in violation of laws, regulations or business ethics.

Specifically, 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 that is also accessible to our suppliers—as well as an external point of contact that uses a third-party system that is accommodates all languages used by employees.

Global Response to Internal Reports

Compliance

Approach to Compliance

To practice Tokyo Electron’s Corporate Philosophy, it is vital that each employee performs their daily duties with strong interest in and a deep understanding of compliance. We established “Tokyo Electron’s Code of Ethics” as a code of conduct to ensure that our employees are aware of the risks around them and conduct themselves appropriately. We have built a global system that can directly raise questions and concerns about compliance and business ethics to quickly address potential problems.

Compliance System

In order to effectively promote a compliance program that is expected of a global company, Tokyo Electron has appointed a Chief Compliance Officer (CCO) and established a dedicated Compliance Department at its headquarters. Additionally, the persons responsible for compliance who called Regional Compliance Controllers have been appointed at key overseas sites, an operation for direct reporting to the Chief Compliance Officer and Compliance Department.

Compliance Initiatives

Business Ethics

Tokyo Electron has established the Business Ethics Committee to promote and raise awareness of compliance and business ethics more effectively together with implementing “Tokyo Electron’s Code of Ethics” as the standard of conduct for all executives and employees. We have also 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.

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. In order to prevent violations, we regularly provide training to promote understanding and awareness of these Policies and Guidelines as well.

Internal Reporting System

Preventing problems from occurring and resolving them quickly when they occur requires a system that allows employees to raise questions and concerns about business ethics and compliance without reservation or hesitation and to discuss them fully. We have established an internal reporting system that ensures complete confidentiality, anonymity and the prohibition of retribution, so that employees can safely and reassuringly provide information and seek redress outside the chain of command about behavior that is, or may be, in violation of laws, regulations or business ethics.

Specifically, 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 that is also accessible to our suppliers—as well as an external point of contact that uses a third-party system that is accommodates all languages used by employees.
Reports and consultations received via these points of contact are handled with sincerity and initiatives are undertaken in accordance with internal regulations. If a compliance violation is found, disciplinary action is taken in accordance with the Rules of Employment, and preventive measures and corrective measures, such as improvements to the workplace environment, are implemented as necessary.

In fiscal 2022, a total of 95 cases were received via the internal reporting system, of which 19 were recognized as compliance violations. The reports and requests for advice primarily related to harassment and the workplace environment. Based on this result, we have conducted regular education programs for our employees with the goal of preventing harassment and have provided thorough follow-up with those concerned or involved.

There were no reports or cases of non-compliance that could have had a serious impact on our business or on local communities.

A leniency system has been introduced whereby any disciplinary action may be reduced or exempted in the event the employee involved in a compliance violation has made a report or sought advice on their own volition.

### 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.

For IR activities, in addition to quarterly earnings conferences, the CEO and each company’s executive appear at Medium-term Management Plan announcement and IR Day events to share our business strategies and growth story. Simultaneous interpretation and subtles are used to broadcast briefings in Japanese and English in an effort to provide fair disclosures to overseas investors. The IR Department, which was established under the direct control of the CEO, also supplements explanations as appropriate through individual interviews and regularly reports opinions from investors to management and the Board of Directors so that feedback can be of use in management. In addition, we actively participate in IR and ESG conferences in Japan and overseas and encourage dialogue with capital markets through the cooperation of company executives and the IR Department to gain a deeper understanding of the Group. In fiscal 2022, we received a Best IR Award from Dow Jones Sustainability Indices.

### Evaluation from Third-party Institutions

Our sustainability initiatives have allowed it to continue to be selected as a constituent stock under leading global ESG investment indices, including the DJSI Asia Pacific Index, FTSE4Good Index, STOXX Global ESG Leaders indices, Euronext Vigeo World 120 Index and STOXX Global ESG Leaders indices.

At the same time, we were evaluated as a low-risk company in Sustainalytics’ ESG Risk Ratings.

In 2021, we were selected as a prestigious A List company in the water security category of a survey conducted by the CDP, and won recognition as the “Grand Prize Company,” an award given to the most outstanding company, in the Corporate Governance of the Year 2022 program sponsored by the Japan Association of Corporate Directors.

Additionally, the entire Group in Japan received recognition as top 50 companies under the 2022 Certified Health & Productivity Management Outstanding Organizations Recognition Program.

### Recognition Program

Regarding our IR activities, we received the “Best IR Award,” and were selected as the “Most Honored Company.” The Tokyo Electron Integrated Report 2021 was selected as an “Excellent Integrated Report” by the Government Pension Investment Fund (GPIF)’s external asset managers entrusted with domestic equity investment.

The Tokyo Electron Integrated Report 2022 was selected as an "Excellent Integrated Report" by the Government Pension Investment Fund (GPIF)’s external asset managers entrusted with domestic equity investment.