

#### Cover Image

"Technology Enabling Life" is our corporate message that expresses the Corporate Principles which consist of our Corporate Philosophy, Management Policies, Vision and TEL Values. It represents how technological innovation in semiconductors contributes to the development of a dream-inspiring society.



#### **TOKYO ELECTRON LIMITED**

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# Editorial

Policy

#### **Issuance of an Integrated Report**

Tokyo Electron issues an integrated report for the purpose of reporting our medium- to long-term profit expansion and continuous corporate value enhancement to our stakeholders. As we celebrate our 60th anniversary this year, the 2023 report looks back at the history of our business expansion. It also details our efforts to continuously create value by the value chain of our business activities anchored around material issues, in conjunction with our sustainability initiatives. We remain committed to accurately comprehending all of our stakeholders' demands and disclosing information timely and transparently.

#### Scope

This report and related data cover the entire Tokyo Electron Group (26 consolidated companies), with the exception of some domestic (Japan-exclusive) content.

#### **Reference Guidelines**

- IFRS Foundation: Integrated Reporting Framework
- Ministry of Economy, Trade and Industry: Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation
- Global Reporting Initiative (GRI): GRI Standards
- Ministry of the Environment, Government of Japan: Environmental Reporting Guideline 2018
- Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

#### Tokyo Electron's Logo

Tokyo Electron's logo was created as a symbol for our next stage of growth, based on our Corporate Philosophy and Vision in 2015. This simple design represents our reliability and the engaging presence we bring to a competitive industry.

The green square at the center of the logo signifies the core of innovation supporting development in the industry; the translucent blue expresses our leading-edge advanced technology. We strive to contribute to the development of a dream-inspiring society through our leading-edge technologies and reliable service and support.

#### Issued Date

September 2023

#### **Period Covered**

Fiscal 2023 (April 1, 2022 to March 31, 2023), some content also covers fiscal 2024

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#### Main Company-related Information Disclosures

- Integrated Report www.tel.com/ir/library/ar/
- Consolidated Financial Statements www.tel.com/ir/library/consolidated-financial-statements/
- FACT BOOK
- www.tel.com/ir/library/fb/
- Medium-term Management Plan www.tel.com/ir/policy/mplan/
- Sustainability Website www.tel.com/sustainability/index.html
- Corporate Governance Guidelines and Report www.tel.com/about/cg/index.html
- Corporate Profile www.tel.com/files/about/library/pv8va20000001ffv-att/ corporate\_guide\_e.pdf

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# CEO's Message



#### **Tokyo Electron's 60th Anniversary**

On November 11, 2023, Tokyo Electron will celebrate 60 years since its founding in 1963. From that time, we have been able to contribute to the development of the semiconductor industry and achieve the level of growth that we have entirely thanks to the support we have received from all our stakeholders. I wish to express my deepest appreciation.

Until now, we have strived to create strong next-generation products and to provide the Best Technical Service, specializing in the semiconductor business. While prioritizing the building of trust and reliability with all our stakeholders, we aim to practice our Corporate Philosophy of "We strive to contribute to the development of a dream-inspiring society through our leading-edge technologies and reliable service and support," endeavoring to expand medium- to long-term profit and to continuously enhance our corporate value.

These 60 years have seen spectacular technological innovation in semiconductors, and at the same time, we have initiated innovation and grown by staying true to our venture spirit. The uses for semiconductors expanded to computers, televisions and then to mobile phones, and the emergence of the Internet led to the connection of billions of devices, as we witness the shift from selling products to selling value. With the arrival of the DX era, where big data drives society, semiconductors have become indispensable, with persistent technological demands for semiconductors with larger capacity, higher speed, superior reliability and lower power consumption.

The current semiconductor market is reaching a period of adjustment, due to concerns of continued inflation, geopolitical risks and accompanying macro-economic deceleration and other factors such as inventory control of semiconductors, with a focus on memory. But demand will gradually recover, and is expected to grow considerably from 2024 onwards. The global data traffic is increasing at a compounded annual growth rate of 26%\* due to the spread of various applications, improved data processing capabilities and other factors, and is forecast to reach 10 times its current level in 10 years time. With investment in data centers, the recovery of demand for computers and

\* A compounded annual growth rate of 26%: Omdia's projection for 2020-2030

smartphones, the spread of EVs and autonomous driving and the use of generative AI, the semiconductor market is forecast to grow to twice its current size and be worth over US\$1 trillion in 2030. Along with the advancement of technology through further scaling and higher multi-layering of semiconductors used in logic, DRAM, NAND and so on, the semiconductor production equipment market, in which we operate, is also expected to expand.



#### **TSV Aimed at Sustainable Corporate Value Enhancement**

With the 60th anniversary of Tokyo Electron approaching, last year we formulated a new Vision to become "A company filled with dreams and vitality that contributes to technological innovation in semiconductors." This new Vision is based on the idea of CSV (Creating Shared Value). The concept behind CSV is that, by using their unique resources and expertise to resolve social issues, companies can realize sustainable growth through the creation of social and economic value. The world is aiming for the coexistence of digitalization and decarbonization for preservation of the global environment in order to build a strong and resilient society in which economic activities do not stop under any circumstances, and technological innovation in semiconductors is essential for this. We are expanding our business activities based on our TSV (TEL's Shared Value), our CSV, aiming for sustainable corporate value enhancement by leveraging the expertise we have cultivated as an industry leader, to drive semiconductor technological innovation.

As we implement TSV, in our Medium-term Management Plan we set fiscal 2027 financial targets aimed at further growth—an operating margin of 35% or more and ROE of 30% or more with net sales of 3 trillion yen or more. We are aware that such financial targets are unique even for the Tokyo Stock Exchange Prime Market, and will strive to ensure we can achieve them. We consider profit to be an important measure of value in our products and services, and are therefore aiming for a world-class operating income of over 1 trillion yen, through creating high-value-added technologies that world has never seen and only we can accomplish.

In addition, we endeavor to implement appropriate balance sheet management and to focus on producing returns for shareholders by setting a high-level payout ratio of 50%.

#### **Leveraging Our Strengths**

We consider the following to be our strengths: (1) being the world's only manufacturer with products in deposition, coater/ developer, etch and cleaning, the four sequential key processes necessary for semiconductor scaling, (2) a 100% share in EUV lithography coater/developer, which are necessary for semiconductor evolution, (3) our product lines being strongly positioned in their respective segments, all of which having achieved first or second place in market share, (4) technical service and marketing developed based on relationships of absolute trust with customers, built through the highest number of installations in the world (approximately 88,000 units) and (5) approximately 22,000 patents owned, the largest number in the industry globally. In order to leverage and further develop these strengths, we are planning 1 trillion yen or more in R&D investment and 400 billion yen or more in capital investment over five years.

Products are our lifeline. Moving forward, we will continuously produce "only one" and "number one" products needed in the future by customers in a timely manner.

#### **Net Zero Initiatives through E-COMPASS**

Through our business activities, we are expanding E-COMPASS, focused on the environment, and will work with our customers and partner companies to promote the technological innovation in semiconductors and to reduce environmental impact across the entire supply chain, mainly from the following three perspectives.

- Pursuing higher performance and lower power consumption in semiconductors
- Achieving both the process performance and environmental performance of equipment
- Reduction of  $CO_2$  emissions in all business activities

  We have set net zero, the reduction of greenhouse gas actual emissions, as a long-term environmental goal, and are implementing and accelerating our E-COMPASS initiatives to be able to realize net zero for Scope 1 and 2 emissions<sup>1</sup> by 2040, and for Scope 3 emissions<sup>2</sup> by 2050.
- 1 Scope 1 and 2: Emissions from the use of energy such as electricity in our own business activities
- 2 Scope 3: Emissions from the use and disposal of equipment sold, purchase of materials, distribution, etc.

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

Without a doubt, it is people who will achieve this. Based on our belief that "our corporate growth is enabled by people, and our employees both create and fulfill company values," we conduct management and appropriate initiatives focused on employee motivation so they can fully exercise their capabilities, centered on the following five points.

The Five Points and Main Activities for Motivation-oriented Management

- 1 Awareness that our company and work contributes to society
- Realization of our Vision based on TSV
- 2 Dreams and expectations of the Company's future
- To achieve net sales of 3 trillion yen or more, operating margin of 35% or more, and ROE of 30% or more
- 3 Opportunities to take on challenges
- > 1 trillion yen or more in R&D investment over five years
- 4 Fair evaluations that recognize employee efforts and globally competitive rewards
- Performance-linked compensation
- 5 Workplace with an open atmosphere and positive communication
- Convening employee meetings and round-table discussions with employees globally

As one pillar of our management, we are also focusing on initiatives for diversity, equity and inclusion, in an effort to enhance 3G diversity (encompassing Global, Gender and Generation aspects)

Going forward, with the expectation of expanding applications for semiconductors in society and development of further innovation, it is important to nurture the students, researchers and other human resources who will lead future technological innovation. We are continuing efforts to boost human resource development in the semiconductor industry through the promotion of a program of industry-academia-government collaboration that includes collaboration with universities in Japan and abroad.

#### Aiming to Be a Company Filled with Dreams and Vitality

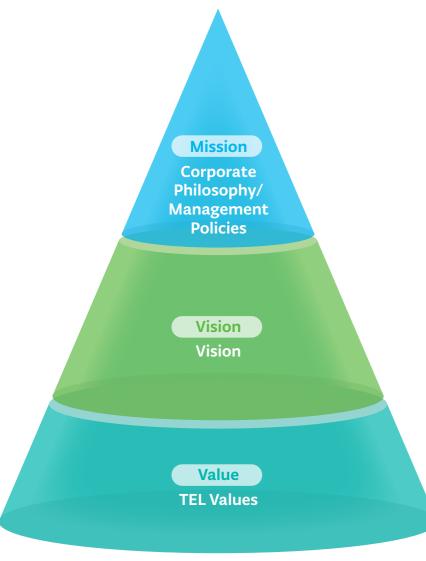
We look towards a prosperous future made possible by semiconductors, their ongoing evolution and the significant expansion of the semiconductor production equipment market that supports this. Tokyo Electron will make even greater contributions to the technological innovation in semiconductors, as the industry leader. As we mark the 60th anniversary of our company's founding, we will continue tackling challenges for further growth and evolving, while valuing trust and reliability. We will aim to be "a company filled with dreams and vitality" so as to be cherished and deeply trusted by all stakeholders and so that our employees can fully exercise their motivation and capabilities.

We look forward to your continued support and patronage.

Representative Director, President & CEO Nong Cours

# Corporate Principles System

Tokyo Electron has repeatedly revolutionized technology in a rapidly changing industry, continuing to grow together with the times. In 2013 we refined our Management Policies, which was established at the time of our founding as our starting point, and also newly defined the purpose of our existence and our mission in society as our Corporate Philosophy. In 2022, we set forth a new Vision toward further future growth and re-defined our Corporate Principles system, which consists of a Mission, Vision and Value, from a medium- to long-term perspective.





# Corporate Philosophy

The Corporate Philosophy defines the purpose of Tokyo Electron's existence and its mission in society. It represents TEL's basic way of thinking that forms the foundation for its corporate activities.



#### **Management Policies**

The Management Policies highlight the management values that Tokyo Electron regards as essential to practice our Corporate Philosophy. They express the logic that underscores our eight general rules of management.



#### Visior

Based on our Corporate Philosophy and Management Policies, the Vision describes Tokyo Electron's medium- to long-term business aspirations.



#### **TEL Values**

Based on the idea that "Our employees both create and fulfill company values," TEL Values clearly describe the mindset of each employee and code of conduct based on the corporate culture that we have cherished since our founding.

# We strive to contribute to the development of a dream-inspiring society through our leading-edge technologies and reliable service and support.



#### **Profit is Essential**

The TEL Group aims to contribute to the development of society and industry and to the enhancement of corporate value while continually pursuing profit.

#### Scope of Business

The TEL Group leads markets by providing high-quality products in leading-edge technology fields with a focus on electronics.

#### **Growth Philosophy**

We will tirelessly take on the challenges of technological innovation to achieve continuous growth through business expansion and market creation.

#### **Quality and Service**

The TEL Group strives to understand the true needs to achieve customer satisfaction and secure customer trust while continuously improving quality and service.

#### **Employees**

The TEL Group's employees both create and fulfill company values, performing their work with creativity, a sense of responsibility, and a commitment to teamwork.

#### Organizations

The TEL Group builds optimal organizations that maximize corporate value in which all employees can realize their full potential.

#### Safety, Health, and the Environment

The TEL Group gives the highest consideration to the safety and health of every person connected with our business activities as well as to the global environment.

#### Social Responsibility

Feeling a strong sense of corporate social responsibility, we strive to gain the esteem of society and to be a company where our employees are proud to work.

## A company filled with dreams and vitality that contributes to technological innovation in semiconductors

Tokyo Electron pursues technological innovation in semiconductors that supports the sustainable development of the world.

We aim for medium- to long-term profit expansion and continuous corporate value enhancement by utilizing our expertise to continuously create high value-added leading-edge equipment and technical services.

Our corporate growth is enabled by people, and our employees both create and fulfill company values. We work to realize this Vision through engagement with our stakeholders.

# Pride

#### We take pride in providing highvalue products and services.

We offer our customers cuttingedge technological products, along with the highest level of quality and technical service, in the pursuit of total customer satisfaction. We consider profit to be an important measure of value in our products and services.



#### We accept the challenge of going beyond what others are doing in pursuing our goal of becoming number one globally.

We view changes as opportunities, and respond to them flexibly and positively.

We are tolerant of failure, and consider it important to learn from the process and results.



#### We will keep ownership in mind as we think things through, and engage in thorough implementation in order to achieve our goals.

We always have an awareness of problems, and tackle challenges with enthusiasm and a sense of responsibility.

We make decisions quickly, and do what we consider to be the best course of action.



# We respect each other's individuality and we place a high priority on teamwork.

We create a workplace with an open atmosphere and positive communication.
We establish relationships of trust with our business partners in order to facilitate mutual growth.



#### We must have awareness and accept responsibility for our behavior as respectful members of society.

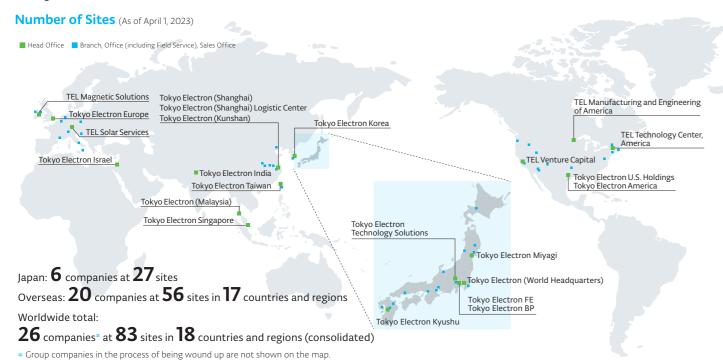
We strictly comply with laws and regulations and the rules of society. We give top priority to safety, health, and the global environment. We strive to become a company that local communities hold in high esteem.



We have established the TEL Values, and we will continue to develop them accordingly in the future.

# **Company Overview**

Tokyo Electron operates worldwide as a leading company in semiconductor production equipment industry. By providing the Best Products, Best Technical Service, we are aiming for medium- to long-term profit expansion and continuous corporate value enhancement. We are also practicing our Corporate Philosophy by contributing to the development of a sustainable society through our business.



#### History



for example.

and manufacturing

companies, and set up

hroughout the world

to globalize operations

Tokyo Flectron (TFL)

marks a major move

marketing of FPD

into development and

production equipment

overseas subsidiaries

#### Tokyo Electron Laboratories, Inc. is established with

Tokyo Electron Laboratories, Inc renamed Tokyo Broadcasting System



Tokyo Flectron Laboratories acquires importing and selling rights for diffusion furnace manufactured by Thermco Products Corp. (U.S.) and begins



# Export of

production equipment

#### Listed on the First Section of the Tokyo Stock Exchange

Listed on the Second

Section of the Tokyo

Stock Exchange

#### Started direct sales and support systems overseas

Category of industry on the Tokyo Stock Exchange First Section changed from 'Wholesale Trade" to "Electric Appliances"

Enhanced the Group "TEL Values" formulated as code of structure in Japan by,

# development

Established "TEL UNIVERSITY" to

corporate value

Establishment of Tokyo Electron Corporate Governance Guidelines Re-emergence as the New TEL (Vision, Medium-term Management Plan formulated and new Corporate Logo created)

#### Formulation of the Medium-term

Management Plan to further enhance 60th anniversary of the foundation

Began publishing

integrated

Listed on the

Exchange

message

**Technology** 

Prime Market of the Tokyo Stock

Formulated the new Vision

"Technology Enabling Life"

formulated as corporate

and Medium-term

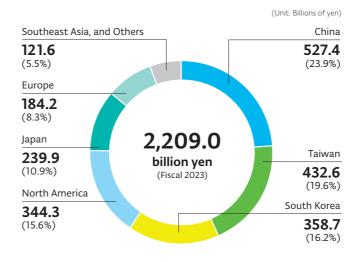
Management Plan

JPX

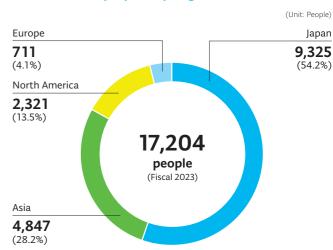
PRIME

reports

#### **Sales by Region (Consolidated)**



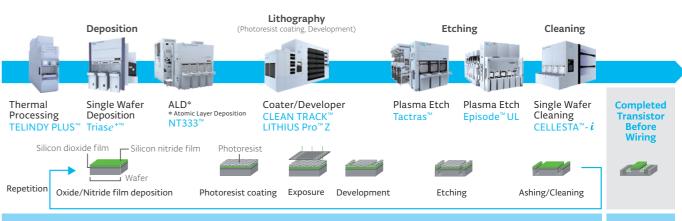
#### **Number of Employees by Region (Consolidated)**

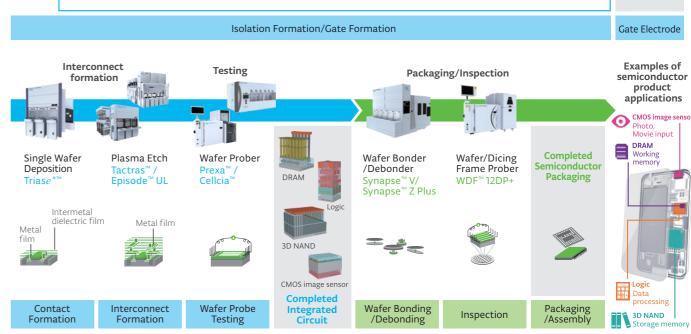


■ Wafer Process (Front-end) ■ Assembly and Test Process (Back-end)

\* Fractions smaller than 100 million ven are truncated.

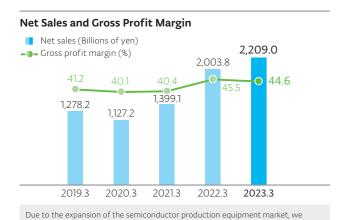
#### **Semiconductor Manufacturing Process and Our Main Products**





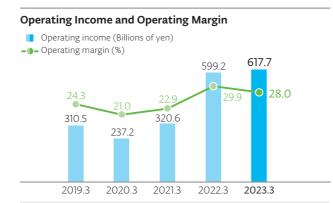
# Highlights of Key Indicators for Continuous Corporate Value Enhancement

At Tokyo Electron, policy decisions and various judgments are made for our business activities by clarifying management indicators, which are important for medium- to long-term profit expansion and continuous corporate value enhancement, as well as conducting monitoring and analysis.

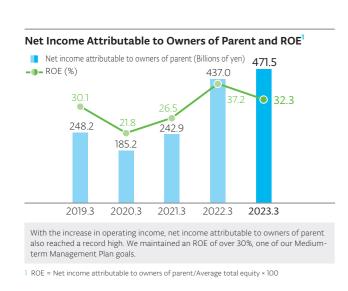


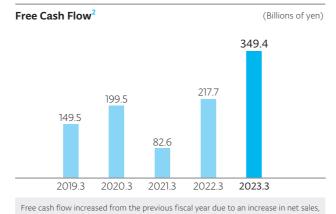
achieved record-breaking net sales. However, the gross profit margin decreased

compared to the previous year due to the soaring cost of components and inflation.



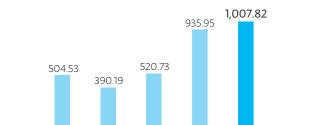
By reliably meeting the growing demand for semiconductor production equipment, our net sales increased, and we achieved record-breaking operating income However, the operating margin decreased compared to the previous year due to factors such as increased R&D expenses for growth.





despite the increase in procurement volume and inventory to respond quickly to

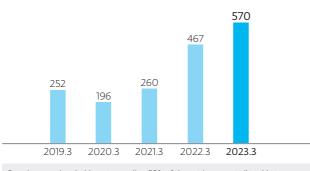
2 Free cash flow = Cash flows from operating activities + Cash flows from investing activities (excluding changes in time deposits and short-term investments)







Net income per share also increased due to the increase in net income attributable



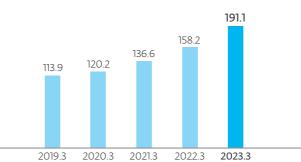
Based on our shareholder return policy, 50% of the net income attributable to owners of parent was distributed as dividends. Including our 60th commemorative dividend, cash dividends per share reached a record high.

Net Income per Share<sup>3</sup>

to owners of parent

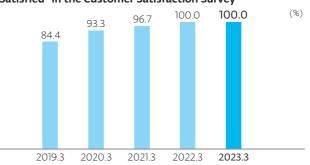
(Yen)





To continuously create high value-added next-generation products, we made an R&D investment of 191.1 billion yen in fiscal 2023. We plan to invest over 1 trillion yen over the five years until fiscal 2027.

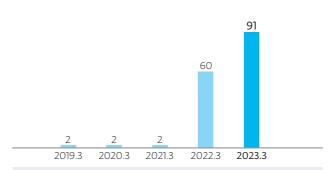
#### Percentage of Respondents Who Selected "Very Satisfied" or "Satisfied" in the Customer Satisfaction Survey



The percentage of respondents who gave evaluations of "Very Satisfied" or "Satisfied" reached 100% in fiscal 2023 continuing from the previous year. Striving to further  $\,$ improve customer satisfaction, a key theme since our founding, we aim to be the sole strategic partner for our customers.

5 For each question, average score is calculated for all customers who responded.

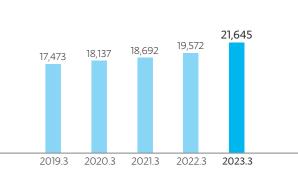
#### Installation of Renewable Energy at Plants and Offices (%)



As of fiscal 2023, we completed 91% of global installation (100% for Japan). Due in part to energy-saving activities, we reduced total CO<sub>2</sub> emissions from our plants and offices by 76% compared to fiscal 2019, achieving the goal of a 70% reduction by fiscal 2031 ahead of schedule.

#### Patents Owned

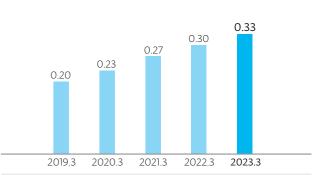




No.1 in the semiconductor production equipment industry with 21,645 patents owned as of March 31, 2023. We built a competitive intellectual property portfolio in terms of both quantity and quality, maintaining a competitive advantage in the intellectual property field on a global level.

4 The figures for fiscal 2019 to 2022 are based on our database, and the figure for fiscal 2023 is based on LexisNexis@PatentSight@ database

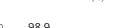
#### Workplace Incidents per 200,000 Work Hours (TCIR<sup>6</sup>)

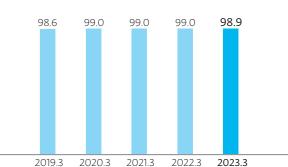


In fiscal 2023, we maintained an industry-leading position among semiconductor production equipment manufacturers with 0.33. With "Safety First" as our slogan, we are committed to promoting thorough safety awareness and continuous improvement activities towards achieving our Medium-term Management Plan goals.

6 TCIR: Total Case Incident Rate

#### Employee Retention Rates (Japan)





Recognizing that our employees both create and fulfill company values, our continuous efforts to further improve employee engagement allowed us to maintain a high retention rate of 98.9% in fiscal 2023.

<sup>3</sup> A 3-for-1 stock split was conducted on April 1, 2023.

We calculated the "net income per share" and "cash dividends per share" assuming this stock split was implemented from fiscal 2019

<sup>7</sup> Calculated using data on turnover rate

Value Creation Story

# Characteristics of Semiconductor Production Equipment Business

The role of semiconductors is becoming increasingly important as the spread of AI and IoT accelerates the transition to a data-driven society. Digital technology usage continues to expand, driving the demand for large volume and diverse semiconductors while also demanding higher performance. Advances in semiconductor technological innovation, in addition to larger capacity, higher speed, improved reliability and lower power consumption, are anticipated to progress further. This increases the importance of semiconductor production equipment.

In an environment where semiconductor technological innovation drives the growth of the production equipment market, in this way, it is vital for semiconductor production equipment manufacturers to utilize specialized expertise in a variety of fields and develop equipment with highest performance to continuously expand business. This requires comprehending the needs of customers early on based on a solid relationship of mutual trust, and conducting R&D across multiple generations with a future-oriented perspective. In addition, we must collaborate with consortiums engaged in creating leading-edge technologies and

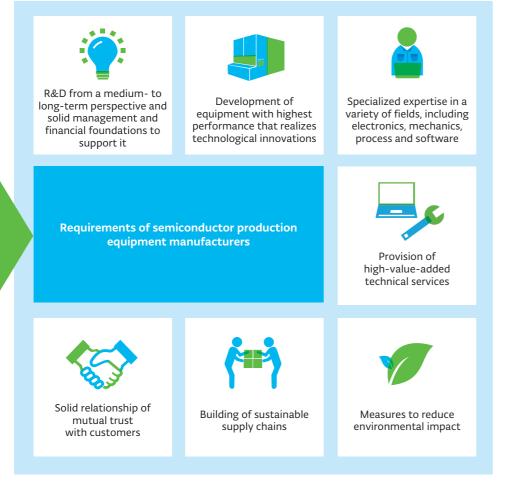
carry out R&D at a global level. A solid management and financial foundation is essential to perform these activities consistently and effectively.

Furthermore, in recent years, there has been a proactive push toward digital transformation (DX), such as the use of AI, to offer high-value-added technical services that support the stable operation of equipment.

In addition to these aspects, in our business activities, it is crucial to build a sustainable supply chain based on partnerships with various suppliers involved in parts and materials supply, equipment assembly and adjustment, customs clearance, logistics and the like.

Moreover, semiconductor production equipment manufacturers are required to contribute to the development of semiconductors with high performance and lower power consumption, improve manufacturing equipment productivity and streamline operations in plants and offices, as part of their response to reducing environmental impact.



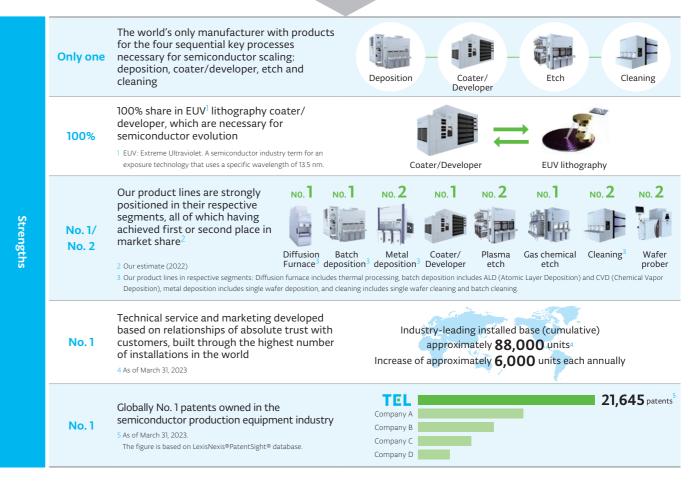


# The Driving Forces of Growth and Strengths behind Our Company

From its founding, we have treasured the trust and reliability of our stakeholders, which serves as the foundation for our unique business model. We have also developed three key driving forces of growth: "abundant technological capabilities cultivated as an industry leader," "absolute trust from customers based on our reliable technical services," and "challenging spirit of our employees,

who are capable of flexibly and rapidly adapting to changes in the environment." By maximizing the strengths created by these driving forces in our business activities, we aim for further growth and strive for medium- to long-term profit expansion and continuous corporate value enhancement.

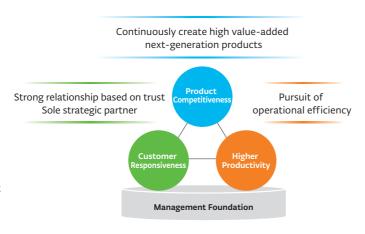
#### Abundant technological capabilities cultivated as an industry leader • We generate innovative and diverse technologies through joint development with our customers and collaboration with world-leading consortiums, and promptly bring high value-added next-generation products to market • Proactive R&D investment aimed at creating leading-edge technologies based on solid management and financial foundations • Optimization and improved efficiency of product development through the promotion of DX Absolute trust from customers based on our reliable technical services • Dedication to improving customer satisfaction level and building of relationship of mutual trust with the aim to be the sole strategic partner for customers Force • Timely provision of high-value-added technical services based on a long track record in response to the increasingly advanced and diverse technological needs of customers • Provision of highly efficient and high-quality services such as remote maintenance services using Al and digital technologies, and predictive maintenance using operational data of equipment Challenging spirit of our employees, who are capable of flexibly and rapidly adapting to changes in the environment • Based on the idea that "our corporate growth is enabled by people, and our employees both create and fulfill company values," we promote Drivin management that emphasizes employee motivation Force • Implementation of "TEL Values," which summarize the company culture that we have treasured since our founding, values and codes of conduct 3 for all employees • Understanding issues and implementation of measures based on employee engagement surveys



## **Material Issues**

#### **Identifying Material Issues**

Every year, we look at social issues and business environments, consider risks and opportunities, and examine the opinions and requests of all stakeholders to identify our material issues following discussions and approval at the Corporate Officers Meeting, participated in by the CEO, and a report to the Board of Directors. We strengthen our "Product Competitiveness" that continuously creates next-generation products with high added value for the future by drawing on our specialization, and our "Customer Responsiveness" as their sole strategic partner based on the strong trust of our customers, and through pursuing innovative technologies, and along with engaging in "Higher Productivity" that continuously pursues operational efficiency through operations that prioritize the improvement of business operations and quality by drawing on our digital technology, we shall work to enhance our "Management Foundation" including governance, compliance, risk management and human capital in order to support these from a strong financial foundation based on profits.



Material Issues Identification Process

#### Issues Awareness

#### Social Issues

 Climate change, human rights issues, geopolitical confrontation, supply chain management, cybersecurity, price rises, etc.

#### **Business Environment**

- Further expansion of semiconductors and semiconductor production equipment market as we move rapidly to a data-driven society
- Initiatives for the preservation of the global
- Human rights initiatives
- Further strengthening of corporate governance

#### Risks for Our Company and Main Initiatives

- Identify the following cross-division and comprehensive key risks across the entire Group to build a solid financial foundation based on the Medium-term Management Plan Market fluctuations, research and development, geopolitics, procurement, production and supply, safety, quality, environmental issues, laws and regulations, intellectual property rights, information security, human resources, etc.
- The main risk management initiatives have been reviewed and deployed<sup>1</sup>

#### Stakeholder Engagement

Return of profit generated from business activities

Shareholders/Investors

 Realization of medium- to long-term growth and enhancement in corporate value

#### Customers

- Propose optimal solutions that contribute to value creation for customers
- Spread environmentally friendly products and services with focus on safety and quality

#### Suppliers

 Further improving added value of products and services through collaboration with us, and constructing a sustainable supply chain

#### Employees

 Creating a workplace environment replete with dreams and vitality that enables a diverse range of people to realize their full potential, based on mutual trust between the organization and the individuals

#### **Local Communities**

- Promotion of regional revitalization and environmental preservation
- Financial contributions through tax payments and investments

#### Governments/Associations

- Providing solutions that help the industry and society solve issues and develop
- Carrying out business activities that comply with laws and regulations, industry codes of conduct, etc.

#### **Identifying Material Issues**

- Identify material issues based on their importance to society and their importance to business
- Determine annual goals for each material issue and clarify SDGs to address<sup>2</sup>
- Organize material issues related to the value chain
- Discussion and approval at the Corporate Officers Meeting and report to the Board of Directors



#### 1 Refer to Risk Management on p. 69

#### Identified Material Issues

Identified Material Issues			
Material Issues	Awareness as Material Issues	Main Initiatives (page in this report)	Initiatives to the SDGs
Product Competitiveness	Continually creating and providing high value-added next-generation products to achieve technological innovation in semiconductors is vital for our medium- to long-term growth  Solid management and financial foundations are required to continue to develop next-generation products with leading-edge technology	<ul> <li>□P. 29 Strengthening Research and Development Capabilities</li> <li>□P. 29 Shift Left</li> <li>□P. 29 Collaboration with Consortiums and Academia</li> <li>□P. 29 Product Marketing</li> <li>□P. 30 New Product/Function Development</li> <li>□P. 30 Intellectual Property Management</li> </ul>	Create innovative technologies by promoting innovation     Help develop a sustainable society by providing environmentally friendly products and services
Customer Responsiveness	Building strong relationships based on trust with our customers and pursuing technological innovation in semiconductors with our customers as their sole strategic partner are vital for our growth  It is important to work to further improve customer satisfaction, one of our Management Policies, through proposing optimal solutions that contribute to customer value creation, and providing the Best Technical Service with high added value in a prompt and appropriate manner	<ul> <li>■P.37 Proposing Customer Solutions         Leveraging a Wide Range of Product         Lineup</li> <li>■P.37 Expansion into the Diversified         Semiconductor Market</li> <li>■P.38 Initiatives for Improvement of         Customer Satisfaction</li> <li>■P.41 Globalize Field Engineers and         Strengthen Customer Responsiveness</li> <li>■P.41 Promotion of High-value-added         Services</li> <li>■P.42 Initiatives for Continuous Equipment         Support</li> </ul>	Contribute to customer innovation and value creation through the proposal of optimal solutions and the provision of high-value-added services      Ensure sustainable forms of production and consumption throughout product life cycles by considering safety and the environment
Higher Productivity	<ul> <li>It is important to work to enhance corporate value, expand profits in the medium- to long-term, and pursue operational efficiency by practicing operation that prioritizes quality and making work more efficient across all business activities</li> <li>It is vital to establish a competitive edge through prompt and appropriate management decisions as well as to engage in improving productivity in all aspects, from the product planning and development stages to maintenance, by promoting Shift Left and drawing on our digital technologies</li> </ul>	<ul> <li>■P.30 New Product/Function Development</li> <li>■P.30 The Use of Materials Informatics</li> <li>■P.33 World-class Manufacturing Operations</li> <li>■P.41 Promotion of High-value-added Services</li> <li>■P.57 Quality</li> <li>■P.58 Continuous Improvement of Business Operations and Creation of New Values</li> </ul>	Pursue productivity, continuously increase management efficiency, and contribute to sustainable economic growth  Promote streamlined business operations and quality management throughout the value chain, ensuring sustainable forms of production and consumption
Management Foundation	It is vital to work to enhance a strong management foundation that underpins our business activities, focused around the three material issues above  It is important to promote initiatives such as corporate governance and risk management, safety and quality, compliance, human rights, and human capital, and to expand sustainable operation	<ul> <li>□P. 44 Human Resources</li> <li>□P. 47 Human Rights</li> <li>□P. 48 Compliance</li> <li>□P. 50 Supply Chain Management</li> <li>□P. 51 Environment</li> <li>□P. 56 Safety</li> <li>□P. 57 Quality</li> <li>□P. 58 Continuous Improvement of Business Operations and Creation of New Values</li> <li>□P. 59 Corporate Governance</li> <li>□P. 69 Risk Management</li> </ul>	3 COMMINION 5 COUNTY

□ P. 71 Information Security

chain, including ourselves, through

respect for human rights and environmental awareness

<sup>2</sup> Refer to the "Sustainability goals and results" on our website for details: www.tel.com/sustainability/goals-and-results/index.html

Value Creation Story

# Medium-term Management Plan

#### Main Initiatives in the Medium-term Management Plan

Amid the rapid technological innovation of the electronics industry, Tokyo Electron, as the leading company in semiconductor production equipment, is actively expanding its business based on our Corporate Philosophy: "We strive to contribute to the development of a dream-inspiring society through our leading-edge technologies and reliable service and support." With our 60th

anniversary approaching, in fiscal 2023, we formulated a new Vision aimed at further growth to become "A company filled with dreams and vitality that contributes to technological innovation in semiconductors," announced our Medium-term Management Plan and launched various initiatives towards its achievement.

#### **Financial Targets**

This Medium-term Management Plan sets financial targets, aimed at future growth, of further improvements to our world-class operating margin and ROE in fiscal 2027. Amid the expectation of increasing demand for semiconductors and significant future growth in the semiconductor production equipment market, we will continue to strive to enhance product competitiveness and customer responsiveness, as well as improve productivity based on a solid management foundation we set of high profitability, in line with the material issue, strive for the Best Products, Best Technical Service, and to achieve medium- to long-term profit expansion and continuous corporate value enhancement.

Financial Targets (Target Year: Fiscal 2027)		
Net Sales	3 trillion yen or more	
Operating Margin	35% or more	
ROE	30% or more	

#### **Main Initiatives**

- Expand our business in the fields of our expertise, using our accumulated technology, in areas where we can leverage our management know-how
- •Introduce next-generation products with high added value required in the future by our customers into the market as early as possible and provide superior technological services
- Conduct proactive R&D investment worth more than 1 trillion yen in the five years from fiscal 2023
- •We will endeavor to sell parts and offer upgrades and modifications for the industry-leading approximately 88,000 units we have installed to date, and to resolve issues such as improved utilization rate and yield enhancement for the devices that our customers produce, while also aiming to expand revenue in the after-market by providing such advanced field solutions. In

# equipment of over 100,000 units, we will also focus on developing highly efficient high added-value service through such means as remote maintenance service and predictive maintenance utilizing device operating data and Al

addition, in preparation to support future cumulative installed

•We will expand E-COMPASS, aimed at preservation of the global environment through the entire supply chain. We have formulated a roadmap and are conducting various activities aimed at achieving our medium-term environmental goals up to fiscal 2031 in order to strengthen environmental initiatives in our products, plants and offices. Also, we are driving initiatives to achieve our long-term environmental goal of reducing greenhouse gas emissions to net zero by 2050

#### **Corporate Governance**

The semiconductor production equipment market is expected to see significant growth also in the future, and we anticipate increasing our business sites, which currently number 83, in 18 countries and regions, to over 100 in the near future. In these circumstances, we consider it is important to work on enhanced corporate governance, in order to achieve sustainable growth. While aiming for a Board of Directors that is certain to always achieve an optimally effective supervisory function, we are also establishing a strong execution system and ensuring expansion of an operating rhythm that supports business execution in order to further facilitate growth-oriented management at our global bases.

From June 2022, we introduced a Corporate Officer system aimed at further strengthening governance, speedier decision making and agile business execution. The corporate officers are responsible for overall Group management and business execution as the highest rank on the executive side. They attend Board of Directors meetings where they explain their business execution, facilitating appropriate supervision of the executive side by the Board of Directors and enabling the officers to leverage deliberations appropriately and speedily at the Board of Directors in business execution.

#### Message from the GM, Finance Unit



**Hiroshi Kawamoto**Senior Vice President
GM. Finance Unit

As we aim to expand medium- to long-term profit and continuously enhance corporate value, we will implement the following growth strategy, financial strategy, capital policy and shareholder return policy.

#### 1. Growth Strategy

As high growth is expected in the semiconductor market, we will continue to make aggressive R&D investments more than 1 trillion yen to maintain and improve our world-leading technological innovation during our Medium-term Management Plan period, which spans five years from fiscal 2023. At the same time, we plan to invest over 400 billion yen over five years to strengthen R&D, expand production capacity and improve productivity through capital investments.

In the Medium-term Management Plan, we have set financial targets for net sales of 3 trillion yen or more, an operating margin of 35% or more, and ROE of 30% or more by fiscal 2027. We aim for sustainable growth and pursue high capital efficiency, including improving ROE, by further enhancing the operating margin and asset efficiency, which were achieved in the previous Medium-term Management Plan, and striving to expand cash flow. We will maintain a solid financial position while aiming for world-class profit generation.

#### 2. Financial Strategy

As a frontrunner in the semiconductor production equipment industry with high growth potential, we have achieved significant growth. We will continue to effectively utilize the cash we have acquired thus far for our next growth investments and pursue further business expansion in areas where growth is expected to enhance our medium- to long-term corporate value. To realize our medium-term financial targets, we will implement the following financial strategies to support the targets:

- Stabilize management by securing working capital for anticipated business expansion
- Maintain a solid financial position
- Pursue appropriate cash allocation and balance sheet management

#### 3. Capital Policy

Through our engagement with capital markets, we continuously work to improve corporate value and capital efficiency.

Additionally, we will enhance our returns to shareholders through the expansion of profits and cash flow. The specific measures are as follows.

- Accurately understanding our own corporate value and evaluating stock prices and market capitalization
- Achieving an optimal capital structure with awareness of capital cost and capital profitability
- Executing continuous and aggressive returns to shareholders based on the expansion of cash flow

Backed by our recent strong profit growth and expectations for further growth in the future, our market capitalization has shown strong growth, with PBR (Price Book-value Ratio) of 4.7 as of the end of March 2023. As a result of the capital market's evaluation of our corporate value, stemming from our aggressive shareholder return policy, high-level growth investments, recruitment and fostering of excellent human resources based on our management strategy and collaborations with customers and suppliers and their results, our market capitalization has increased significantly compared to net assets. Furthermore, we executed a 3-for-1 stock split of common stocks effective April 1, 2023. By conducting this stock split, we established an environment that is easier for investing by reducing the amount per investment unit.

#### 4. Shareholder Return Policy

Our basic stance is to enhance shareholder value by returning to shareholders, made possible by achieving world-class mediumterm management targets and through a high level of dividends coupled with flexible repurchases of treasury stocks. Regarding dividends for shareholders, we mainly adopt a performancelinked model, aiming for a payout ratio of 50% of the net income attributable to owners of parent. (However, the amount of annual dividend per share shall not be less than 50 yen, and we will review our dividend policy if we do not generate net income for two consecutive fiscal years.) For repurchases of treasury stocks, we will execute it flexibly, taking into account the current cash position, funds for medium- to long-term growth investments, stock price levels and total return conditions. Note that we have resolved and commenced the repurchase of treasury stocks on May 11, 2023, with a limit of 10 million shares and a purchase amount limit of 120 billion yen.

We will continue to execute this financial strategy to realize our Vision and achieve our financial targets, while also contributing to the enhancement of corporate and shareholder value through engagement with capital markets.

#### **Key Indicators for Continuous Corporate Value Enhancement**

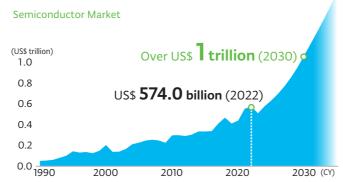
The Medium-term Management Plan clearly defines financial and sustainability metrics as "key indicators for continuous corporate value enhancement." At quarterly review meetings, we regularly check the progress and action plans, and various activities are carried out under the responsible persons for each indicator.

	Target Area	Objective	Target Year	Fiscal 2023 Performance	Future Initiatives
		• Net Sales: 3 trillion yen or more	Fiscal 2027	• 2,209.0 billion yen	
Finance		Operating Margin: 35% or more	Fiscal 2027	•28.0%	Refer to Main Initiatives in the Medium-term Management Plan on p. 15-16
		• ROE: 30% or more	Fiscal 2027	• 32.3%	
	earch and elopment	Continuously create high value-added next-generation products by implementing R&D expense of more than 1 trillion yen over 5 years	Fiscal 2027	• R&D investment 191.1 billion yen	Further deliberate on and implement R&D strategies in the Medium-term Management Plan
		• Reduce total CO <sub>2</sub> emissions by 70% (compared to fiscal 2019)	Fiscal 2031	•76% reduction	Consider reestablishing objectives for further reductions
	Plants and Offices	• A rate of 100% renewable energy usage	Fiscal 2031	• 91%	Promote visualization of energy usage and energy efficiency in business activities  Encourage the purchase of non-fossil certificates and secure a continuous supply of renewable energy
nvir		• Reduce energy consumption (per-unit basis) by 1% from the previous fiscal year at each plant and office	Every fiscal year	Achieved goal at 6 of 11 plants or offices	Promote visualization of energy usage and energy efficiency in business activities
nno.		Maintain water consumption (per-unit basis) at each plant and office at individual base year levels	Every fiscal year	• Achieved 9 out of 13 goals	• Plan and implement actions related to water consumption reduction
nent	Logistics	• Reduce CO <sub>2</sub> emissions of total logistics (own delivery) by 30%° by further promoting modal shift and joint delivery * Reestablish due to goal achieved	Fiscal 2027	• 11.4% reduction	Expand modal shift and joint delivery, and introduce electric vehicles
		• Reduce the usage ratio of wood packaging for products to 50% or less (packaging of semiconductor production equipment)	Fiscal 2024	•79.7%	Promote evaluations and explain and deploy to targeted customers
	Products	• Reduce per-wafer emissions of CO <sub>2</sub> by 30% (compared to fiscal 2019)	Fiscal 2031	• 20.8% reduction	• Implement ahead of schedule the plan to reduce emissions from targeted equipment
	Engagement	Engagement survey score: Continuously improve (increase score compared to the previous survey) or achieve a score higher than the average of other companies in each region	Every survey	• From fiscal 2016 to fiscal 2023, the overall score increased by 18 points (6 points higher than the previous survey)	Identify current issues through survey result analysis     Plan and execute actions needed to improve employee engagement awareness
	Lingagement	Employee retention rates* Japan: 99%, Overseas: Higher than the industry average     Excluding retirement at the mandatory retirement age and so on	Every fiscal year	<ul><li>Japan: 99%</li><li>Overseas: Higher than the industry average (96%)</li></ul>	Introduce a retirement reason analysis process as a company-wide measure     In companies with high turnover risk, promote individual analysis and initiatives targeting identified groups
Emplo	Careers	We have created an environment where every employee can create value for the Company's growth and for society with the support of supervisors and others by challenging themselves to do what they want while imagining their own futures (career paths) and growing.	Fiscal 2027	Enhanced career education for employees from new hires to those in their third year of employment	Conduct a reality check on career self-reliance* by generation and job type and consider effective measures     Implement measures to improve understanding of career self-reliance* among managerial class     Career self-reliance: Refers to the individuals thinking about their own careers and actively managing their career development
yees	Work-life Balance	• Annual paid leave utilization rate Japan: (1) 80%/(2) 90% Overseas: Equal to or better than the previous fiscal year's result	Japan: (1) Fiscal 2027/ (2) Fiscal 2031 Overseas: Every fiscal year	• Japan: 70.0% • Overseas: 65.6% (previous fiscal year's result: 73.1%)	Implement announcements to promote acquisition across all companies     Consider and implement acquisition promotion plans at each company
	Diversity, Equity & Inclusion (DE&I)	• Ratio of female managers Japan: 5%; Global: 8%	Fiscal 2027	• Japan: 2.7% • Global: 5.7%	Improve motivation through mentoring for candidates     Conduct executive roundtables at each company to deepen understanding of DE&I and gain support from management     Maintain and expand the talent pipeline (human resource development plan) through career discussions and career seminars (Japan)
Supply Chain Management		Supply chain sustainability assessment implementation rate     Material suppliers: Covering at least 85% of our procurement spend     Logistics suppliers: 100% of customs-related operators     Staffing suppliers: 100% of employment agencies and contracting companies (internal contractors)	Every fiscal year	Material suppliers: Achieved 85% or more of our procurement spend     Logistics suppliers: Achieved 100% of customs-related businesses     Staffing suppliers: Achieved 100% of employment agencies and contracting companies (internal contractors)	Assured implementation of actions for understanding issues and remediation based on assessment
		Supply chain BCP assessment implementation rate     Material suppliers: Covering at least 85% of our procurement spend	Every fiscal year	• Material suppliers: Achieved 85% or more of our procurement spend	• Assured implementation of actions for understanding issues and remediation based on assessment
Safety		TCIR* No more than 0.10 (Globally No. 1 in the industry)  * TCIR: Total Case Incident Rate. The number of workplace incidents per 200,000 work hours.	Fiscal 2027	TCIR 0.33 Special measures activity in accordance with the declaration of safety emergency Thorough investigation into the causes of personal accidents that are management priorities Special safety audits (understanding actual on-site work)	Continue efforts from the previous fiscal year Disseminate safety regulations Strengthen appropriate safety training depending on the nature of the work Ensure feedback of equipment safety design information to the technical department
Corporate Governance		We are working at all times to establish an optimal and highly effective Board of Directors and an aggressive management execution system, and by continuously addressing issues based on evaluations of the effectiveness of the Board of Directors and input from institutional investors and other stakeholders, we will achieve solid corporate governance for enhancing corporate value over the medium to long term and sustainable growth.  1. Seeking a Board of Directors with high effectiveness	Every fiscal year	1. Seeking a Board of Directors with high effectiveness  As a company with an Audit & Supervisory Board, we improved the ratio of outside directors from the conventional one-third (4 out of 12) to one-half (3 out of 6)  Off-site meetings: 2 times  At every Board of Directors meeting, in principle, the CEO explains important matters concerning business execution  CEO mission: Shared with members of the Board of Directors  Closed session on evaluation of representative directors: 2 times  Operating rhythm supporting the execution of business  Corporate Officers Meeting: 14 times  See meeting: 4 times  Quarterly review meeting: 4 times	<ul> <li>Aiming to become the top company globally in the medium to long term we will continue to work on each of the following matters to further strengthen the supervisory function of the Board of Directors and the management and execution functions of the executive side and will further enhance its effectiveness by regularly reviewing its progress.</li> <li>The company will systematically set agendas in line with medium to long term strategies and issues for growth, and will enhance discussions from a long term perspective</li> <li>The company will enhance the effectiveness of the Corporate Officers Meeting, the highest decision making authority on the executive side</li> <li>The company will conduct an analysis of the decision making of the Board of Directors, clarify the points of deliberation, and enhance opportunities for sharing information with outside directors and outside Audit &amp; Supervisory Board members on occasions other than board meetings and off-site meetings</li> </ul>
		▼ Quarterry review meeting: Monitoring the progress of the Medium-term Management Plan (four times annually)		a Developed City of Ci	
Risk Management		<ul> <li>We are building and further improving a highly effective risk management system that supports a strong management foundation.</li> <li>We are enhancing risk management and compliance based on the slogan "Safety, Quality and Compliance. Our top priority. It's our pride."</li> <li>Together with establishing a dedicated Compliance Department at our headquarters and appointing a Chief Compliance Officer and Regional Compliance Head, we are also conducting assessments by external agencies and undertaking education.</li> <li>We are conducting supervision and monitoring through reports to the Corporate Officers Meeting—the highest decision-making body on the executive side—and the Board of Directors (twice annually).</li> <li>To conduct appropriate measures with certainty across the entire Group, we are identifying risks (12 risks in fiscal 2024) expected in the execution of business centered on the Risk Management Committee and deploying them in the activities of each company.</li> <li>We are continuously conducting activities to foster awareness about safety, compliance and risk management, and reflecting the awareness of all executives and employees as well as their autonomous and specific initiatives in our human resource evaluation.</li> </ul>		Promoted DX of risk management activities Strengthened risk management PDCA and the efficiency of risk identification and evaluation at the Group level Positioned the Risk Management Committee as a standing organization to promote the PDCA of company-wide risk management activities, and conducted biannual monitoring for risks assumed in conducting business Developed and implemented activity plans for relevant risks such as production risks and corporate risks at Group companies. Also, strengthened communication between the head office and Group companies for system enhancement Implemented compliance risk assessment through an external organization, and then improved and executed the compliance program	Establishing a highly effective risk management PDCA posture across all Group companies, early detection of significant risks assumed in business execution, and assured implementation of measures     Continually foster a corporate ethical culture to prevent serious incidents, and establish a compliance posture     Plan and further improve education and training     Emphasize and deploy training targeting managers

#### Value Creation Story

#### **Outlook of Semiconductor Production Equipment Business**

With the acceleration of society's digital shift, vigorous investment took place in various fields including logic and foundry for leading-edge semiconductors along with semiconductors for vehicles and industry. The semiconductor market was worth in the range of US\$574.0 billion in 2022, and consequently, the wafer fab equipment market was worth approximately US\$100 billion. In the future, the importance of semiconductor technological innovation for the shift towards a data-driven society and decarbonization is expected to lead to significantly greater expansion of the semiconductor market, which is forecast to be worth over US\$1 trillion by 2030—growth that will more than double the current market.



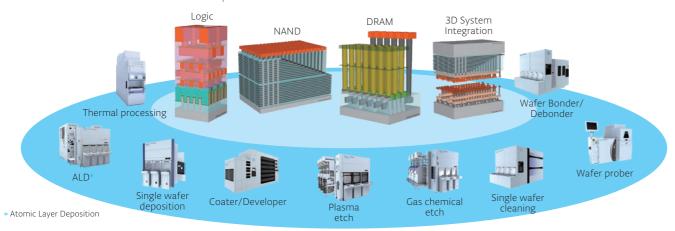
Source: WSTS (1990-2022) / IBS, June 2023 (2023-2030)

#### **Semiconductor Device Technology Evolution and Business Opportunities**

Further growth in the semiconductor and semiconductor production equipment markets will be supported by technological innovation in semiconductor devices. In logic/foundry, NAND and DRAM applications, increased demand for further scaling, lower

manufacturing costs per transistor or bit through higher multilayering, lower power consumption and higher speeds is expected. We will utilize our broad product lineup to contribute to the manufacturing of devices with a highly competitive advantage.

#### Semiconductor Devices and Our Product Lineup



#### Logic/Foundry

Increasing patterning complexity requires co-optimization between unit processes. It is expected that high-NA EUV¹ lithography technology will be applied to mass production to achieve further scaling going forward. In addition to scaling through high-NA EUV, various new technologies and structures will be introduced. Transistor structures are expected to shift from FinFET² 3D models to new structures (GAA NS³ and CFET⁴). In wiring technology, progress is being made in development of backside wiring to reduce power supply wiring resistance, while also effectively using new materials instead of Cu, and available space. Our front-end process equipment and wafer bonding equipment will contribute to the realization of this kind of technological innovation.

- 1 High-NA EUV: Refers to next-generation EUV, an exposure technology that shortens the resolvable line width by increasing the numerical aperture (NA)
- 2 FinFET: Fin Field Effect Transistor, a process technology with a three-dimensional structure in the
- ${\tt 3}$  GAA NS: Gate All Around Nanosheet, a next-generation technology for FinFET
- 4 CFET: Complementary Field Effect Transistor, transistor with a new structure

#### NAND

3D NAND multi-layering is progressing even further, and layer counts will increase to 300 and 500 in the future. Accordingly, this will require etch that enables processing of deep holes and trenches with a high aspect ratio<sup>5</sup>, high productivity sacrificial film removal and atomic level deposition on 3D structure. Also, there is demand for greater capacity and increased data transfer speed, which requires enhanced performance of peripheral circuits to achieve, however there remain issues due to limitations on performance and scaling arising from the thermal processing used when molding memory cells. To resolve this, development is underway aimed at mass production of 3D integration technology to manufacture and bond memory cells and peripheral circuit in separate wafers. We are striving to further improve the performance of our etch, ALD and wafer bonding equipment to meet these technological requirements.

5 Aspect ratio: Depth to width ratio of the pattern formed on the wafer

#### DRAM

In DRAM, we believe that requirements will also grow not only for technology to further advance 2D scaling, but also for technology for high aspect ratio capacitor and contact formation. While many of our deposition, etch and cleaning systems are used for this technology, we will continue to provide new products and solutions to achieve even higher density. In the future, along with advancement in 2D scaling, a shift to 3D DRAM, that adopts 3D structures, is also expected. In 3D DRAM, as with the shift from 2D to 3D NAND, vertical multi-layering will drive scaling in place of 2D lithographic scaling. This is particularly expected to increase the importance of the deposition and etch processes.

#### ■ 3D System Integration

In 3D integration using wafer bonding technology, in addition to NAND, progress is also being made in aspects such as the application of mass production of stacked CMOS image sensors for the production and bonding of separate wafers for pixel and signal processing circuits. Also, development is underway of 3D system integration for 3D packaging of high-capacity memory, etc. to logic circuits to realize higher speeds, lower power consumption and increased functionality of devices. These are used for bonding wafers together and for bonding operation-tested KGD<sup>6</sup>. We contribute to evolve the leading-edge device and the system level performance by providing wafer bonding and laser edge trimming systems based on the technology and experience we have cultivated in front-end processes.

6 KGD: Known Good Die. Semiconductor chips that are quality assured, including for reliability

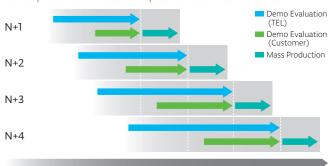
#### **Development for Several Generations through Collaboration with Customers**

With the increasing technical difficulty of scaling, in addition to the evaluation of the Nth mass production generation, development from N+1 to N+4 is also progressing simultaneously for leading-edge memory, logic and foundry. As a semiconductor production equipment manufacturer, high technology development capabilities, resources in engineering and a strong financial foundation are required in order to continue this kind of development and evaluation with semiconductor manufacturers.

We work with semiconductor manufacturers, who are our customers, in our respective roles to co-create long-term technology roadmaps and develop and evaluate technologies up to four generations ahead. We are able to quickly demonstrate both equipment and process performance by conducting evaluations using wafers that are actually used in the manufacturing processes of our customers. Through initiatives like this, we steadily create

high-value-added products and strive to capture new business opportunities.

Development and Evaluation up to Four Generations Ahead



#### **Further Strengthening of Development Structure**

In order to advance the simultaneous development and evaluation of leading-edge technology up to four generations ahead, we will endeavor to further strengthen our development structure.

In 2023, we completed a new development building at the Tokyo Electron Technology Solutions Hosaka Office for the development of film deposition and gas chemical etch as well as corporate development, and in 2025, we are also planning to



Tokyo Electron Technology Solutions Hosaka Office New Development Building (Completed in July 2023)



Tokyo Electron Miyagi New Development Building (Completion scheduled for spring 2025)

operate a new development building at Tokyo Electron Miyagi for etch system development, and another at Tokyo Electron Kyushu for coater/developer and cleaning system development.

In the future, we will continue proactive R&D and capital investment to ensure the realization of sustainable growth.



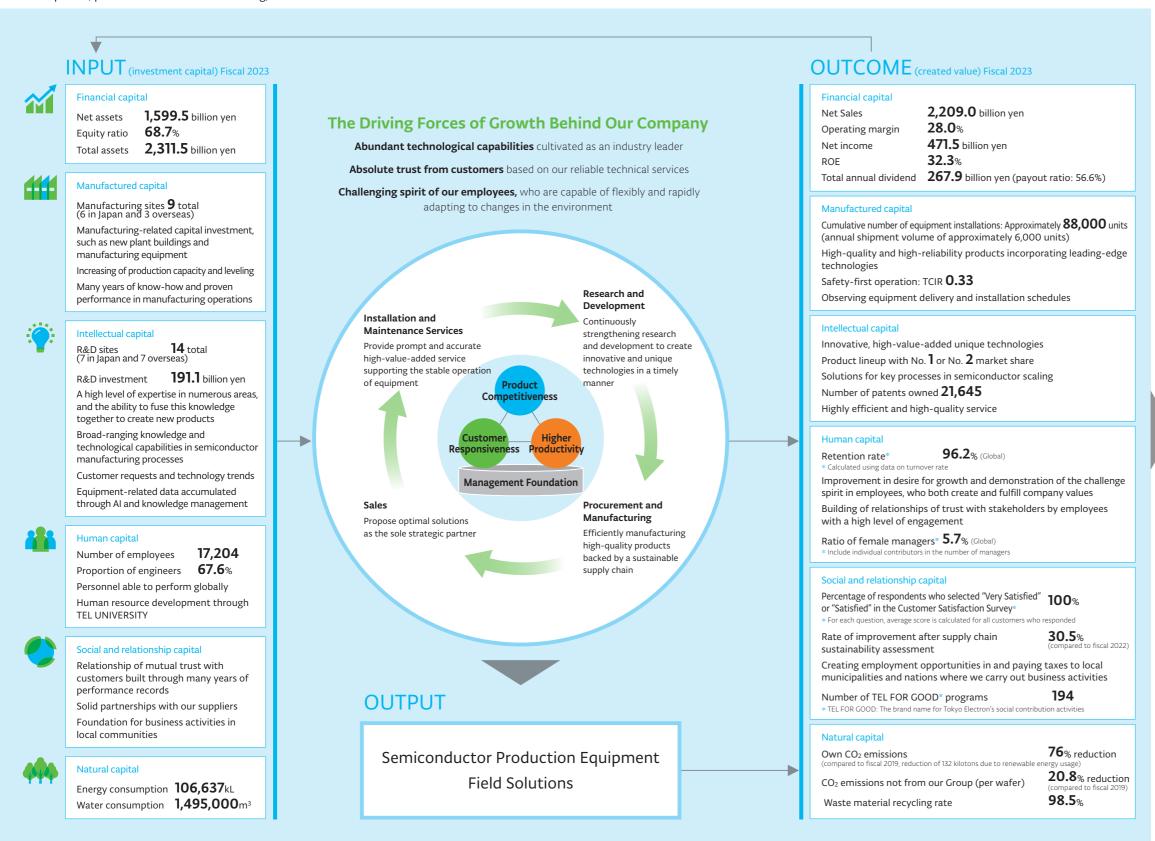
Tokyo Electron Kyushu

New Development Building

(Completion scheduled for summer 2025)

## Value Creation Model

We will make the most of the capital we own and continue to provide new value that contributes to the resolution of issues and development of industry and society through the development of a value chain in our business activities in research and development, procurement and manufacturing, sales and installation and maintenance services.



#### **IMPACT** Stakeholders Return of profit generated from business activities Shareholders, Investors Realization of mediumto long-term growth and enhancement in corporate value Value creation and continuous growth for customers Improving productivity Customers (utilization rate and yield) and reduced in semiconductor manufacturing Deployment of business operations across our competitive supply chain **Suppliers** Improving added value of products and services handled, through collaboration with us Creating a workplace with dreams and vitality that enables employees to realize their full **Employees** potential based on mutual trust between the organization and individuals The revitalization of and sustainable developmer in local communities resource development, employment opportunities, initiatives to preserve the local environment and paying taxes to local Carrying out business activities that comply with laws and Governments Associations regulations, industry codes of conduct and other rules Initiatives that help the

industry and society

through collaboration

solve issues and develop

# Stakeholder Engagement

Actively providing opportunities for engagement with our stakeholders and promoting mutual communication allows us to accurately comprehend their demands and expectations as we deploy our business activities. We strive to build a solid relationship of mutual trust with all the stakeholders surrounding our company by working steadily to fulfill our roles and responsibilities in society.

vernments/Associations

#### Relationship with Stakeholders

- Shareholders and investors provide our company's capital, while expressing their opinions, demands and expectations of our company from the shareholder/investor perspective through constructive dialogue and through exercising their voting rights at the Shareholders' Meeting
- We share our management vision and growth scenario with shareholders and investors, and incorporate the opinions and demands we hear from them into our management in an effort to enhance our corporate value

#### Value Provided to Stakeholders

- Return of profit generated from business activities
- Realization of medium- to long-term growth and enhancement in corporate value

#### Relationship with Stakeholders

- Governments and associations not only require companies to comply with laws, regulations, industry codes of conduct and other rules, but also aim to work in partnership with companies to bring about development at the industrywide, national and community level
- While carrying out our business activities in compliance with such laws, regulations, industry codes of conduct and the like in the countries and communities where we operate, we contribute to social development and the resolution of societal issues by accurately grasping social needs

#### Value Provided to Stakeholders

- Solutions that help the industry and society solve issues and develop
- Business activities that comply with laws and regulations, industry codes of conduct and other rules

#### Relationship with Stakeholders

- Local communities are striving to offer more value by working to foster local industry and educate human resources
- We contribute to the development of the local communities where we operate through employment opportunities, initiatives to preserve the local environment and paying taxes to local municipalities

#### Value Provided to Stakeholders

- Human resources development and employment opportunities
- Promotion of environmental preservation in communities
- Financial contributions through tax payments

### Earnings release conference, Medium-term Management Plan briefing, IR Day Technology conference IR conference, IR road show\*, individual IR interview Joint development Shareholders' Meeting Customer Satisfaction Survey IR road show: IR activities presented directly to shareholders and investors Production update Cooperation with government and briefing administrative agencies TEL Partners' Dav/ TEL E-COMPASS Day Collaboration with global initiatives and Sustainability NGOs etc. assessment Industry group STQA\* audit activities STQA: Supplier Total Quality • TEL FOR GOOD Employee meeting (Social contribution activities) Global engagement survey Tours of plants and offices Training and workshops Environmental debriefing Local Communities

#### Relationship with Stakeholders

- Customers purchase the semiconductor production equipment we provide and also utilize services necessary for maintaining that equipment
- We not only provide products, services and solutions but also create technology roadmaps spanning multiple generations and carry out joint technology development with customers

#### Value Provided to Stakeholders

- Best Products incorporating leading-edge technologies
- High-value-added Best Technical Service

Suppliers

- Environmentally friendly products and services with a focus on safety and quality
- Solutions that satisfy a variety of application needs

#### Relationship with Stakeholders

- Suppliers supply the materials and human resources necessary for our company's business administration, and also perform customs clearance, logistics operations and other operational services
- In addition to purchasing these materials and operational services, we cooperate with our suppliers on the further development and improvement of these aspects and enhancement of their quality.
   We build a sustainable supply chain that takes into account labor, the environment, health and safety, ethics and the like

#### Value Provided to Stakeholders

- Further improving added value of products and services through collaboration with our company
- Business opportunities in the semiconductor production equipment markets
- Maintaining soundness and strengthening competitiveness throughout the entire supply chain

#### Relationship with Stakeholders

- Our employees contribute to enhancing our corporate value by demonstrating their individual capabilities and pursuing personal growth through making use of opportunities for education
- We promote the improvement of employee engagement under management that emphasizes employee motivation

#### Value Provided to Stakeholders

- A workplace environment replete with dreams and vitality that enables employees to realize their full potential based on mutual trust between the organization and individuals
- Opportunities for career development and skill improvement
- Fair performance review and remuneration commensurate with results

# Initiatives in the Value Chain

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









Management Foundation
Build a strong management foundation that underpins our business activities



# Research and Development

mp 27

#### Overviev

- 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**

- Close partnerships among our development sites in Japan and overseas, business divisions, and Corporate Innovation Division, as well as diverse collaborations with consortiums and academia
- Development of new products and functions with highest performance through the organic integration of specialized expertise in various fields
- 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
- \* Throughput: Ability to process wafers over a unit of time



# Procurement and Manufacturing

MD 21

#### Overview

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

#### **Differentiation Points**

- Achieving stable procurement and production leveling through strategic procurement activities
- Implementing world-class manufacturing operations by utilizing our manufacturing know-how and knowledge, and by carrying out thorough quality management in each process
- Promoting global environment preservation throughout the supply chain through E-COMPASS activities

#### **Value Created**

- High-quality and superior-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



#### Sales

**Ш**Р. 35

#### Overviev

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

#### **Differentiation Points**

- Leveraging a wide range of product lineup to provide solutions, and meeting the broader-ranging needs of the diversifying semiconductor market
- Accurate comprehension of customer needs through the development of global operations, leading to prompt provision of technologies and solutions
- Continuous initiatives to improve customer satisfaction

#### **Value Created**

- High-value-added products incorporating innovative technologies by simultaneous parallel evaluation of four technology generations
- Products that address a variety of applications and reengineered equipment
- Responsiveness to customers through close collaboration throughout the entire Group



# Installation and Maintenance Services

шР. 39

#### Overvie

- 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
- Offering support services that extend the lifecycle of equipment, contributing to ongoing equipment operation, as well as initiatives to reduce environmental impact
- 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 installation to maintenance
- Contribution toward the long-term steady operation of equipment across many generations
- High-quality technical services that contribute to improving customers' productivity

#### Sustainability Initiatives in the Value Chain

mp. 44 Human Resources
mp. 47 Human Rights

mp. 48 Compliance

mp. 50 Supply Chain Management

mp. 51 Environment

шр. 56 Safety

mp. 57 Quality

©P. 58 Continuous Improvement of Business
Operations and Creation of New Values

mp. 59 Corporate Governance

шр. 69 Risk Management

mp. 71 Information Security

mp. 71 Engagement with Capital Markets

mp. 72 Evaluation from Third-party Institutions

mp. 72 Participation in Global Initiatives



Tokyo Electron will promote balanced basic and applied R&D and continue to create highly unique technologies through the utilization of in-house and outside knowledge and global collaboration, while always remaining conscious of technological trends and the most current customer needs.

We are creating innovative and unique technologies necessary to manufacture leading-edge semiconductors by ascertaining technological trends and customer needs early on through global marketing activities and service support activities, sharing that information across relevant departments and reflecting it in product planning and development. Through development portfolio management, we are formulating and implementing short-term as well as medium- to long-term development strategies that are associated with the existing businesses and progressing R&D of

fundamental technologies that would be tied to our future businesses.

Collaboration between our major development sites in Japan and development sites across the globe as well as alliances with outside consortiums, research institutes, academia and suppliers, enable us to strengthen our R&D capabilities further and continue to develop high-value-added technologies that will help customers create value. We are also working to deploy intellectual property management and to promote R&D with digital technologies that make full use of AI.

#### 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 that contribute to manufacturing leading-edge semiconductors
- Increasing investment in human resources and R&D as well as pursuing development efficiency

#### **Management Resources to Be Invested**

R&D investment Over five years, beginning in fiscal 2023

more than **trillion yen** 

R&D sites 14 (7 in Japan and 7 overseas)

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

#### **Primary Management Indicators**

R&D expenses



Number of new product releases



Global patent application rate<sup>2</sup>



- Continuously create high value-added next-generation products by implementing R&D expense of more than 1 trillion yen over 5 years (by fiscal 2027). Refer to Key Indicators for Continuous Corporate Value Enhancement on p. 17
- 2 The percentage of inventions filed in multiple countries among the number of filed inventions as patent application
- Maintain the previous year's rate (±10 percentage points) (fiscal 2024). Refer to the "Sustainability goals and results" on our website for details: www.tel.com/sustainability/goals-and-results/index.html

#### **Sustainability Initiatives**

- Initiatives related to product environment <u>IIP. 52</u> Medium- and Long-term Environmental Goals and State of Progress
- Future-oriented development of environmental technologies through partnerships with suppliers шР. 51 E-COMPASS, шР. 53 Initiatives with Suppliers
- Structure to promote innovative development that takes advantage of diversity P.44 Diversity, Equity and Inclusion (DE&I)
- Development efficiency improvement through the promotion of DX Initiatives of Digital Transformation (DX)

#### **Risk Management Initiatives**

Item	Main Potential Risks	Main Initiatives	
Research and Development	Delays in the launch of new products or the mismatch of such products with customer needs could lead to a decline in the competitiveness of products	<ul> <li>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division</li> <li>Provide highly competitive next-generation products ahead of competitors by collaborating with research institutions and sharing a technology roadmap spanning multiple generations with leading-edge customers</li> </ul>	
Intellectual	The inability to obtain exclusive rights to proprietary technologies could lead to reduced product competitiveness	<ul> <li>Advance the intellectual property strategy, business strategy and R&amp;D strategy in an integrated manner to build an appropriate intellectual property portfolio</li> <li>Reduce the risk of infringement of other companies' patents by continuously monitoring other companies' patents and establishing a system to take appropriate measures in cooperation with the business and R&amp;D departments</li> </ul>	
Property Rights	Infringement of the intellectual property rights of third parties could lead to restrictions on the production and sale of products as well as liability for damages		
Human Resources	The inability to recruit and retain necessary human resources on an ongoing basis or the inability to create an environment where people with diverse values and expertise can play an active role could lead to diminished product development capability or customer support quality	• Make continuous improvements to work environments and promote diverse work styles as well as health and productivity management (e.g., sharing our visions by management, establishing training plans for human resource who will lead the future, visualizing career paths for employees and offering attractive remuneration and benefits)	

#### **Main Material Issues Initiatives**

#### Strengthening Research and **Development Capabilities**







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

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

The Corporate Innovation Division strives for the creation of further high-value addition 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.

# Shift Left



We are focused on using the Shift Left approach, investing resources such as technology, personnel and expense into the early processes of product development. Through this approach, we are endeavoring to develop various technologies and conducting research for multiple future generations in order to realize the technology roadmaps we have created with customers.

With product development through the Shift Left approach, we understand customer needs at an earlier stage, reflect the information obtained from feedback into our R&D and propose superior products. This contributes to maximizing yield for customer devices and capacity utilization of their mass production line equipment. We are also promoting on-site collaboration for early delivery of evaluation equipment to customers' fabs and development and research laboratories, and are working to accelerate the process in which R&D is reflected in mass production equipment as well as to optimize development efficiency.

#### Collaboration with Consortiums and Academia

For many years, Tokyo Electron has been focusing on joint research and development efforts with domestic and international consortiums and academia (universities). These initiatives include development under CHIPS Act<sup>1</sup> that are currently being promoted in the USA and Europe to help develop infrastructure to maximize the benefits of open innovation-based development in each region. In recent years, we are also making efforts to boost human resource development in the semiconductor industry through collaboration with major universities in Japan and abroad.

We continue our engagement in a wide range of collaborations from applications to product development in various fields of semiconductor technology. R&D is of course underway in the

front-end and back-end areas at TEL Technology Center, America, which marked its 20th anniversary in 2023. We also participate in a global research hub for hardware development of next-generation Al, leading-edge logic and quantum computing. Collaboration is also underway with imec in the field of EUV and high-NA EUV<sup>2</sup> patterning technologies and logic process development; and we have a partnership with BRIDG, a non-profit public-private partnership in Florida, USA.

With the diversification of semiconductor development, we collaborate with the National Institute of Advanced Industrial Science and Technology (AIST), one of Japan's largest public research institutions, leveraging its world-class research environment and personnel to enhance our own development by conducting research in the MRAM<sup>3</sup> and 2D material-related research.

- 1 CHIPS Act: Creating Helpful Incentives to Produce Semiconductors and Science Act. An act to support investment in the USA into semiconductor development and mass production, AI, quantum computing
- 2 EUV and high-NA EUV: Extreme Ultraviolet. A semiconductor industry term for an exposure technology that uses a specific wavelength of 13.5 nm. High-NA EUV refers to next-generation EUV, an exposure technology that shortens the resolvable line width by increasing the numerical aperture (NA)
- 3 MRAM: Magneto-resistive Random Access Memory



- 4 Fujii Head Office, Hosaka Office, Tohoku Office
- 6 Chaska Head Office, Chelmsford Office

#### Product Marketing c





We are endeavoring to further enhance the productivity of product development by having our sales departments and product marketing departments appropriately fulfill their respective roles. Our sales departments not only take responsibility for reliably delivering products and services to customers based on solid relationships of trust, but are also working to improve customer satisfaction levels still further by accurately gaging customers' true needs and working in partnership with development departments on initiatives relating to the improvement and enhancement of products and services.

Meanwhile, our product marketing departments work to plan advanced products that meet the future needs of customers in

target markets, and roll out activities based on these plans. In addition to considering new products and functions based on the seeds created by our development divisions, our product marketing departments also formulate plans for optimal collaboration including tie-ups with partner companies and consortiums, to create products with still high added value.

In the semiconductor industry, where change happens at bewildering speed, companies need the flexibility to change policies in a timely manner as and when circumstances require. Our sales departments and product marketing departments work together in developing product marketing activities that anticipate market needs and contribute to customers' products, and in doing so, help improve our product competitiveness and promote our Shift Left approach.

Roles of Sales Departments and Product Marketing Departments for **Product Development** 



\* CIP: Continuous Improvement Program

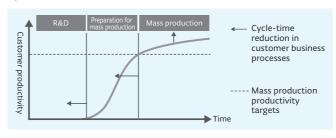
#### **New Product/Function Development**



We are tackling the development of new high-performance products and new functionalities by leveraging and organically integrating our expertise in various fields. We are creating new value to offer to our customers, including the development of fundamental technologies, as well as software to control equipment, hardware and total systems. We are also undertaking new development and optimization of operation systems that leverage these, with performance enhancement through inter-process coordination.

In addition, we are identifying issues at sites at an early stage after equipment installation and making continuous improvements using field information and equipment data to boost productivity for our customers, contributing to reduction of cycle-time until product release.

Cycle-time Reduction for Customer Product Release



#### The Use of Materials Informatics



Amid growing demand for the development of new materials for use in semiconductors, we are moving forward with new R&D initiatives. A method known as "materials informatics" uses machine learning to optimize the selection of candidate materials and process methods by incorporating the results of simulations and experimental data, as part of the search for new materials. By using this method, we have discovered a new candidate material for high dielectric-constant films, using a metallic oxide. The use of Al enables innovative high-value-added development work that is not bound by conventional ideas or practices.

#### Intellectual Property Management





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

To achieve sustainable growth in the semiconductor industry where the growth is driven by technological innovation, we are globally expanding our R&D activity including industry-academia collaborations. IP professionals are assigned to headquarters, R&D and production sites around the world to evaluate inventions created in R&D projects from various perspectives such as technology trends or marketing, and we have established IP portfolios aligned with our technology and product strategies.

In 2022, the number of inventions created in Japan was 1,226 and 317 in other countries. We have maintained the global patent application rate approximately 70% for 10 consecutive years, and the allowance rate\* of the filed patents has reached 74% in Japan and 81% in the United States. Furthermore, various inventions have been created through collaboration with domestic and overseas business partners, consortium and academia, and we have jointly filed patent applications on 41 inventions in the past two years.

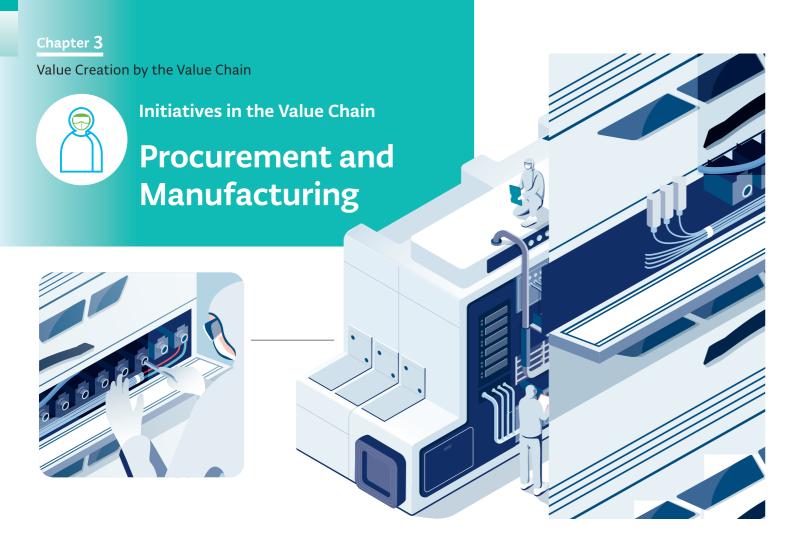
Consequently, the number of active issued patents as of March 31, 2023 is 21,645, which is the largest number in the semiconductor production equipment industry, and we are building our competitive edge in the intellectual property field on a global level.

In recognition of these initiatives, we have been selected as one of the "Clarivate Top 100 Global Innovators 2023" for the second consecutive year. In this award, Clarivate, a global information service company, makes an original evaluation based on patent data, and once a year recognizes companies or institutions protecting original invention ideas with intellectual property rights, and leading the world's business through successful commercialization.

We strive to improve the competitiveness of our products through differentiating our own technologies with building a competitive IP portfolio in terms of both quantity and quality.

\* Figures calculated in 2021

Top 100 Global Innovator Clarivate



# Along with striving to build a sustainable supply chain, we have established a system for manufacturing high-quality products more efficiently.

We are constantly pursuing production innovation based on the themes of safety, high quality and superior reliability, and putting together manufacturing operations that are environmentally 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 the semiconductor production equipment business



# Manufacturing core systems

that make full use of the latest digital technologies



Solid cooperative working relationships with suppliers

#### **Primary Management Indicators**

Direct and indirect manufacturing costs



Production lead times



Procurement stockout rate



#### **Sustainability Initiatives**

- Quality control in manufacturing P. 57 Quality
- Promoting sound supply chain management based on industry codes of conduct mp. 50 Supply Chain Management
- Initiatives for reducing CO<sub>2</sub> emissions and introducing renewable energy at plants and offices

  —P. 52 Medium- and Long-term Environmental Goals and State of Progress
- Shortening of production lead times and leveling IDP. 58 Continuous Improvement of Business Operations

#### **Risk Management Initiatives**

ltem	Main Potential Risks	Main Initiatives
Procurement, Production and Supply	Interruptions in the Company's production due to a natural disaster or delays in component procurement due to deterioration in the business conditions of a supplier or an increase in demand that exceeds the supplier's supply capacity could lead to delays in the supply of products to customers	<ul> <li>Formulate BCP, develop alternate production capabilities, promote the seismic reinforcement of plants, level production, enhance the backup capabilities for information systems, use multiple sources of important parts, and maintain appropriate inventory levels</li> <li>Share forecasts based on demand projections for semiconductors with suppliers and build a system for the stable supply of products</li> </ul>
Safety	Safety problems with the Company's products or serious accidents resulting in workplace injuries could lead to damage to customers, liability for damages and a decline in public trust and confidence in the Company's safety initiatives	Based on the "Safety First" approach, implement inherently safe design with an awareness of risk reduction at the product development stage Implement company-wide efforts such as promoting safety education tailored to each employee's job and developing an incident reporting system
Quality	The occurrence of a product defect could lead to liability for damages, costs for countermeasures and a decline in the Group's brand and credibility	<ul> <li>Promote continuous education on quality to employees and suppliers to establish a quality assurance system and a world-class service system</li> <li>Resolve technical issues from the product development and design stage</li> <li>Thoroughly investigate the cause of any defects and implement measures to prevent the same or similar defects from occurring</li> <li>Monitor the quality status of suppliers, conduct audits and provide support for improvement</li> </ul>
Environmental Issues	The inability to respond appropriately to each country's climate change policies, environmental laws and regulations, and customer needs could lead to additional related costs such as for developing new products or changing specifications, as well as to reduced product competitiveness and diminished public confidence in the Company	<ul> <li>To achieve medium- to long-term environmental goals that include the net zero target, implement measures such as reducing greenhouse gas emissions from the use of our products, increasing the rate of renewable energy usage at plants and offices, reducing overall power consumption, reviewing packaging materials, and promoting a modal shift</li> <li>Provide technologies, etc., that contribute to higher performance and energy efficiency of semiconductor devices through implementation of our E-COMPASS initiative</li> </ul>

#### **Main Material Issues Initiatives**

#### **Sustainable Procurement Strategies**



In the semiconductor production equipment business, supply chain management is becoming increasingly important. To conduct business activities effectively and reliably, it is extremely important to promote strategic procurement activities proactively.

The Corporate Production Division is promoting the optimization of procurement and parts inventories throughout the Group by strengthening supplementary parts systems between manufacturing sites and examining procurement processes. It is also periodically conducting supply chain sustainability assessments and BCP assessments, and improving commercial distribution management through the further enhancement of supplier maps, etc. 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 working to ensure stable procurement and both production and start-up process leveling. Through these efforts, we are seeking to further improve safety, quality and efficiency of equipment production and start-up.

Based on the belief that smooth communication with suppliers is important, we hold production update briefings, TEL Partners' Day and other events on a regular basis to create opportunities to share market trends, our management policy and business policies, and sustainability initiatives with our suppliers. In September 2022, we affirmed the intent of "Council on Promoting Partnership Building for Cultivating the Future" pursued by the Cabinet Office, Ministry of Economy, Trade and Industry and Small and Medium Enterprise Agency, and announced "Declaration of Partnership Building" to declare that we would work to build mutuallybeneficial relationships and new cooperation beyond scale and industrial groupings of the entire supply chain and to adhere to a desirable practice for trades with suppliers. We will continue to strive to improve added values in the supply chain by conducting global operations in cooperation with our suppliers.



TEL Partners' Day

#### **World-class Manufacturing Operations**



We are constantly striving to innovate in production and further improve profitability at manufacturing sites while engaging in the strategic development of world-class manufacturing operations through the use of our manufacturing know-how, knowledge and the equipment data we have accumulated over many years.

In assembly, adjustment, inspections and other processes, we are working to improve product quality by implementing in-process quality control that includes thorough screening and simulation verification, to prevent non-conforming products from passing through to subsequent processes. We are also proactively investing, including new plant buildings and manufacturing facilities to increase production capacity while promoting production leveling, in anticipation of diversifying technological needs and market expansion. Tokyo Electron Technology Solutions began operations of production buildings at its Tohoku office in July 2020, and its Yamanashi office in August 2020, increasing their production capacities two-fold and 1.5-fold respectively. Tokyo Electron Miyagi began operation of its Miyagi Technology Innovation Center in October 2021 aimed at the evolution of innovative production technologies. The Tohoku office is also constructing the Tohoku Production and Logistics Center (provisional name), scheduled for completion in autumn 2025. We also plan 400 billion yen or more in capital investment over the five years to fiscal 2027 with the aim of further boosting production capacity and efficiency.

#### Manufacturing Sites



Tokyo Electron Technology Solutions Began operations in July 2020



Tokyo Electron Miyagi Miyagi Technology Innovation Center Began operations in October 202

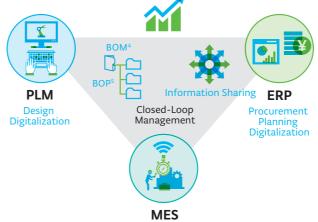


Tokyo Electron Technology Solutions Tohoku Office Tohoku Production and Logistics Center (provisional name) Completion scheduled for autumn 2025

Furthermore, we are working to improve IT infrastructure by building a manufacturing core system through beginning operations of ERP1 and MES2 that utilize the latest digital technologies, the introduction of PLM<sup>3</sup> and other measures. Through the use of data aggregated through these efforts in each business operation, we can quickly collect data needed for management decisions, make production schedules more reasonable and more efficient, visualize delivery dates for parts and more. In addition, we are thoroughly implementing infection prevention measures at all manufacturing sites to maximize operation rates in production activities.

- 1 ERP: Enterprise Resource Planning, Refer to Continuous Improvement of Business Operations on p. 58
- 2 MES: Manufacturing Execution System
- 3 PLM: Product Lifecycle Management

#### Manufacturing Core System Development

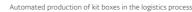


4 BOM: Bill of Materials 5 BOP: Bill of Process

We are also promoting mechanization of logistics and manufacturing tasks as a measure aimed at improved product and manufacturing quality, lead-time reduction and production costcutting. Tokyo Electron Miyagi is aiming for 30% labor-saving through mechanization of its parts storage and distribution processes. Also, by automating part of assembly processes, it will maximize production line efficiency. In addition, we are promoting further improvement of product and manufacturing quality by

Shift Left, including implementation of productivity-related design reviews using 3D models and VR (Virtual Reality) systems at the design stage.

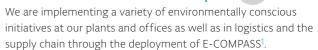






(storage container warehousing line)

#### **Initiatives to Reduce Environmental Impact**



We have set a medium-term environmental goal of a rate of 100% renewable energy (electricity) usage at our plants and offices by fiscal 2031. We have completed the introduction of renewable energy at our domestic manufacturing sites, plants and offices including places we are renting, and plan to advance the introduction further at our overseas plants and offices as well. Additionally, we are also saving more energy in cleanrooms, setting office air-conditioning at appropriate temperatures and introducing devices that offer superior energy-saving performance, etc.

As regulations are getting tighter and the need for reducing environmental impact is growing in logistics as well, we have been actively implementing measures such as a modal shift<sup>2</sup> in transportation in Japan and overseas and the adoption of packaging methods that reduce environmental impact. In fiscal 2023, we have set a goal to further promote modal shifts and joint delivery and reduce CO<sub>2</sub> emissions of total logistics (own delivery) by 10% (by fiscal 2027). By strengthening activities that contribute to the achievement of this goal, we have striven to reduce CO<sub>2</sub> emissions of equipment logistics.

We also grant the "Environmental Partners" to suppliers that cooperate in and contribute to our environmental efforts through E-COMPASS activities and certify them as "Green Partners."

- Refer to E-COMPASS on p. 51 and Initiatives with Suppliers on p. 53
- 2 Modal shift: Transitioning from transportation by car and air to rail and ship, which have lower environmental impacts



Environmental Partners Plaque



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, 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 and providing innovative technologies for future generations. Moreover, we are strengthening our business in the diversifying semiconductor

market (MAGIC market\*) based on our leading-edge technologies cultivated over the years and our extensive installation record. We also strive to help customers maximize their return on investment through the sale of reengineered equipment and other products.

By leveraging our strength as a semiconductor production equipment manufacturer with a diverse product lineup and proposing optimal solutions, we will contribute to the creation of further value for our customers.

\* Refer to Expansion into the Diversified Semiconductor Market on p. 37

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

- Improving our responsiveness to customers and customer satisfaction
- Increasing mutual profits by providing the Best Products, Best Technical Service
- 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, business units and overseas subsidiaries coordinate with one another Broad-ranging knowledge and comprehensive technological capabilities

born from our diverse product lineup

#### Mutual trust with customers

built through many years of performance records

#### **Primary Management Indicators**

Customer satisfaction



Market share by major customers and products



Operating margi



- Achieve evaluations of "Very Satisfied" or "Satisfied" for 100% of customer satisfaction survey responses (fiscal 2024).

  Refer to the "Sustainability goals and results" on our website for details: www.tel.com/sustainability/goals-and-results/index.html
- Operating margin of 35% or more (by fiscal 2027). Refer to Key Indicators for Continuous Corporate Value Enhancement on p. 17

#### **Sustainability Initiatives**

- Initiatives for improvement of customer satisfaction 

  Initiatives for Improvement of Customer Satisfaction
- Ongoing efforts to ensure customer safety IP. 56 Safety
- Reduction of CO<sub>2</sub> emissions from product usage by addressing medium-term environmental goals mp. 52 Medium- and Long-term Environmental Goals and State of Progress
- Improvement of operational efficiency in sales activities ©P. 58 Continuous Improvement of Business Operations

#### **Risk Management Initiatives**

Item	Main Potential Risks	Main Initiatives
Market	A rapid contraction of the semiconductor market could lead to overproduction or an increase in dead inventory	Periodically review market conditions and orders received at the Board of Directors and other important meetings, and appropriately adjust capital investments, personnel/inventory planning and other aspects of business
Fluctuations	A sharp increase in demand could lead to an inability to supply customers with products in a timely manner, resulting in lost opportunities	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	Geopolitical tensions could undermine the international order and global macroeconomic conditions, affecting national and regional security, foreign, industrial or environmental policy. This could in turn lead to supply chain disruptions or deterioration of the macroeconomic environment, restricting the Company's ability to operate business	<ul> <li>Carefully monitor the international situation as well as the diplomatic and security measures and industrial policy trends in each country and region</li> <li>Anticipate the impact of macroeconomic fluctuations and regulations related to product imports/exports or technological development on the Company's business and consider countermeasures in advance</li> </ul>
Information Security	Breaches of information or the suspension of services due to unauthorized access by cyberattack against the Company or suppliers, natural disasters or other factors could lead to diminished public confidence in the Company or liability for damages	<ul> <li>Launch a dedicated security organization and establish an information security system that conforms to international standards by having security assessments conducted by external experts, etc.</li> <li>Establish globally standardized rules and regulations for information management and implement response guidelines</li> </ul>

#### **Main Material Issues Initiatives**

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



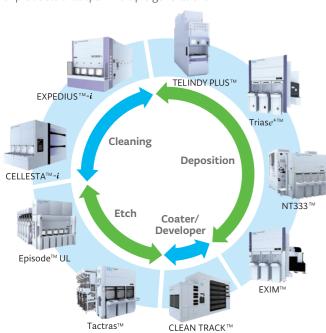
We established the Customer Collaboration Group and are working to further strengthen our customer support capabilities in order to be the sole strategic partner for our customers. The Customer Collaboration Group consists of the Account Sales Division and the Global Sales Division. Major semiconductor manufacturers, who are our traditional customers, share the needs for next-generation leading-edge technologies in memory, logic devices, foundry and other fields, to the Account Sales Division, and this leads to R&D of new technologies, and the Global Sales Division responds to the needs of domestic and overseas customers that handle products for the rapidly growing Chinese market and the industrial IoT market.

These two divisions work closely with business units, development and manufacturing divisions, service divisions and overseas subsidiaries to develop global operations throughout our entire Group (=One-TEL), enabling us to quickly provide the technologies, services and solutions that our customers demand.

# Proposing Customer Solutions Leveraging a Wide Range of Product Lineup



To solve customers' issues and contribute to the manufacture of highly competitive devices, we are developing proposal activities that leverage our wide range of product lineup, including equipment for the four sequential key processes of deposition, coater/developer, etch and cleaning in the front-end process. We simultaneously strive to help customers improve productivity and quality in their development and manufacturing by providing optimal solutions that include remote support systems and software for maximizing equipment utilization rate. We are also continuously working to improve the performance of installed equipment to respond to customer requests for the manufacture of products that span multiple generations.



LITHIUS Pro™ Z

In the pursuit of higher speed, lower power consumption and lower cost semiconductors, 3D system integration in back-end processes is advancing. The 3D system integration requires cleaner process environment to have better yield because it is close to the final stage of semiconductor manufacturing and front-end processes are sometimes repeated after this process. Therefore, equipment that integrates front-end and back-end process technologies is required. KGD\* with advanced testing is also important for the 3D integration of individual chips called Chiplet. To meet these requirements, we provide wafer bonding and laser edge trimming equipment based on the technology and experience we have cultivated in front-end processes, and wafer probers to ensure KGD.

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



#### Expansion into the Diversified Semiconductor Market



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



In this market, we have been developing our business mainly as a field solutions (FS) business, but in April 2023, we integrated our optical device know-how cultivated in our flat panel displays (FPD) business to improve our technological innovation capabilities and seamless responsiveness to customers, and established the new DSS (Diverse Systems and Solutions) business division.

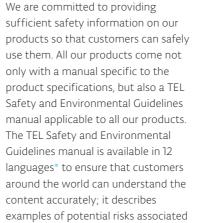
We will strive to further enhance our corporate value by efficiently allocating management resources to the MAGIC market, which is expected to grow at a high rate in the future.

To meet the diverse needs of our customers, we are also developing and producing reengineered equipment based on the previous generation 200/300 mm wafer-compatible equipment.

The reengineered equipment replaces old units and parts with new ones while maintaining compatibility with existing processes, and offers specifications at the latest equipment level in terms of transfer speed and other factors, thereby helping customers improve productivity and reduce environmental impact. In addition to sales of reengineered equipment of the ALPHA-8SE<sup>TM1</sup> and UNITY<sup>TM</sup> Me<sup>2</sup>, we plan to sell the reengineered equipment of the coater/developer in the future.

- $1\,$  ALPHA-8SETM: Batch deposition thermal processing system for wafers of 200 mm or less
- 2 UNITY™ Me: Plasma etch system for wafers of 200 mm or less

# Providing Safety-related Information on Products to Customers





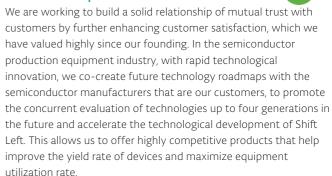
TEL

TEL Safety and Environmental

with using our products together with the methods for averting those risks, as well as safety measures applied to products and recommended methods for product disposal, divided into such categories as chemical, electrical, mechanical and ergonomic.

If new safety warnings are identified after a product ships, we promptly report these to the affected customers. We also make particular efforts to ensure that necessary information is communicated to customers to whom we deliver products that involve the use of hazardous chemicals or high-voltage electricity.

#### Initiatives for Improvement of Customer Satisfaction

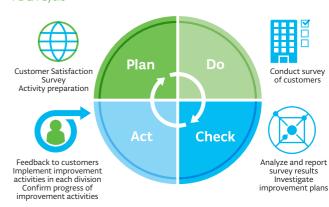


Further, at customer sites around the world, we are continuously implementing customer-oriented initiatives such as having our engineers quickly get installed equipment operating at maximum performance, proposing solutions to any specific technical issues and providing feedback on next-generation equipment.

In addition to these activities, we conduct our own annual Customer Satisfaction Survey. The information obtained from the survey is analyzed by business unit (product), account (customer) and function (software, development, etc.), and the results are shared with relevant divisions, such as sales, equipment/plants and service, to develop a PDCA cycle that leads to practical improvements.

In fiscal 2023, the results of our activities continued to be highly evaluated and received best awards from many of our customers. We will continue to provide the Best Products, Best Technical Service and strive to further improve customer satisfaction to be the sole strategic partner for our customers.

PDCA Cycle



<sup>\* 12</sup> languages: Japanese, English, German, French, Italian, Dutch, Russian, Portuguese, Korean, Traditional Chinese, Simplified Chinese and Finnish



**Initiatives in the Value Chain** 

**Installation and Maintenance Services** 





# We have built a global support system, and deploy the Best Technical Service with high added value in a prompt and appropriate manner.

For installation and maintenance of semiconductor production equipment, we take advantage of a cumulative number of equipment installations of approximately 88,000 units to offer the Best Technical Service with high added value. We make full use of leading-edge Al, 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 upgrading the skills of field engineers who interact with customers, we accurately identify customer needs to help provide

timely feedback to our development and manufacturing divisions. In addition, we are further improving the quality of our services by contributing to continuous operations of customers' equipment over a long period of time through support services that extend the life cycle of equipment, and providing advanced field solutions, such as Total Support Center (TSC) and remote maintenance services.

\* Knowledge management: Management approach to promote internal company sharing of tacit knowledge held by individuals, in order to encourage innovation and to improve overall productivity

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

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

#### **Management Resources to Be Invested**

Service support infrastructure at

83 sites located in 18 countries and regions

of the world



Service database and remote support system

that utilizes AI, knowledge management etc.



Approximately 5,000 field engineers with highly specialized and broad knowledge



#### **Primary Management Indicators**

Net sales for field solutions business



Profitability of field solutions business



Man-hours for installation and maintenance services, etc.



#### **Sustainability Initiatives**

- Safety initiatives for installation and maintenance services P. 56 Safety
- Provision of high-quality services IMP. 57 Quality
- Effective utilization of diverse talent P. 44 Human Resources

#### **Risk Management Initiatives**

ltem	Main Potential Risks	Main Initiatives
Safety	Safety problems with the Company's products or serious accidents resulting in workplace injuries could lead to damage to customers, liability for damages and a decline in public trust and confidence in the Company's safety initiatives	Based on the "Safety First" approach, implement inherently safe design with an awareness of risk reduction at the product development stage     Implement company-wide efforts such as promoting safety education tailored to each employee's job and developing an incident reporting system
Quality	The occurrence of a product defect could lead to liability for damages, costs for countermeasures and a decline in the Group's brand and credibility	<ul> <li>Promote continuous education on quality to employees and suppliers to establish a quality assurance system and a world-class service system</li> <li>Resolve technical issues from the product development and design stage</li> <li>Thoroughly investigate the cause of any defects and implement measures to prevent the same or similar defects from occurring</li> <li>Monitor the quality status of suppliers, conduct audits and provide support for improvement</li> </ul>
Human Resources	The inability to recruit and retain necessary human resources on an ongoing basis or the inability to create an environment where people with diverse values and expertise can play an active role could lead to diminished product development capability or customer support quality	Make continuous improvements to work environments and promote diverse work styles as well as health and productivity management (e.g., sharing our visions by management, establishing training plans for human resource who will lead the future, visualizing career paths for employees and offering attractive remuneration and benefits)

#### Main Material Issues Initiatives

#### **Globalize Field Engineers and Strengthen Customer Responsiveness**





We established our training operations center in 2019 to enhance the training structure and promote globalization of field engineers. The center establishes a company-wide common skills management system that meets the standards of SEMI (a global industry association representing the electronics manufacturing and design supply chain). The system helps us to improve the quality of the services we deliver to customers, by enabling the optimized deployment of human resources based on objectively observed information about engineers' skills.

In fiscal 2022, field engineers who have acquired DX skills developed a diverse variety of programs for improving work efficiency and are rolling some of these programs out globally. Linked to our database of field information connected to our services, these programs allow such field information to be updated automatically, analyzed and visualized.

In fiscal 2023, we made progress with the deployment to overseas subsidiaries of engineers who had undergone training at manufacturing sites in Japan as part of our education for expert engineers for overseas subsidiaries; as we improve our ability to respond to the various technological needs of customers, we have successfully delivered sound results.

In fiscal 2024, we will increase the numbers of personnel receiving this education for expert engineers, while creating plans for providing short intensive education courses for mid-level engineers who are involved in day-to-day operations at customers' facilities. We are also working to promote seamless communication between field engineers, development and manufacturing divisions and business units, to further strengthen our customer responsiveness.

# Customers Providing the Best Products, Best Technical Service Engineers at overseas **Seamless** Product development in line with customer needs

#### **Promotion of High-value-added Services**

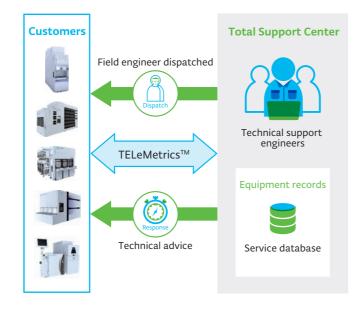


We have built a global support system, establishing Total Support Centers (TSCs) in Japan, the United States, China and Europe. In each TSC site, we have deployed Service CRM<sup>1</sup>, which centrally manages customers' equipment records (support/incident history) as a database through knowledge management. We strive to resolve various issues of customers by using TELeMetrics<sup>™</sup>, a remote maintenance service, and smart glasses<sup>2</sup> with our unique functions as well as Service CRM at each TSC site.

We also provide various contract-based services for supporting the stable operation of equipment. For example, we provide a service in which our field engineers stay at customers' manufacturing sites and maintain their equipment and a comprehensive contract-based service (TEL Service Advantage Premium) in which we offer pay-as-you-go or flat-rate maintenance services, supply maintenance/wear-out parts and repair their parts in an integrated manner.

In addition, we place emphasis on developing advanced diagnostic capabilities that utilize various equipment related data. We aim to shorten time to solve incidents and reducing variability among equipment in process performance by comparing setting values in each equipment and sensor values and analyzing causes of incidents based on data such as maintenance or parts replacement histories acquired from multiple equipment. We plan to utilize these diagnostic capabilities for traditional services and contract-based services that bill based on achievement of performance goals in the future.

- Service CRM: Service Customer Relationship Management
- 2 Smart glasses: Glasses-style wearable devices that can display images and digital information



For starting up equipment at customers' sites, shortening the lead time required for the quality yield of semiconductor devices to reach the mass production level is extremely important. It also leads to the enhancement of our competitiveness as an equipment manufacturer. By focusing on utilization of equipment data and promoting DX that makes full use of AI technologies, we help to cut time for customers to introduce new products to the market and realize improvement of work efficiency by our engineers, reduction of periodic maintenance times and maximization of equipment utilization rates, etc.

To improve our service quality further, we also promote initiatives that utilize digital technologies, such as tablets, smart glasses and cloud systems in customers' sites, in conformance to both customers' and our security policies and rules.

#### Steps in DX activities

#### Digital Enablers<sup>3</sup>

- High-performance computing
- Cloud infrastructure ■ AI technology

Control

■ IoT. xR

#### Surrounding Environment

- Progress in data sharing and collaboration in supply chains
- High expectations of robots and Al that supports humans

#### Added Value Creation/Improved Capital Efficiency



#### Analysis and Prediction

## Analysis and prediction with digitalized data

- Resolution of high value problem
- Quality
   Cost
   Speed
   Productivity
   Energy consumption
- 3 Enablers: People, organizations, factors and means that enable success and achievement of objectives

#### **Initiatives for Continuous Equipment Support**



As part of our efforts to support continuous and effective utilization of customers' equipment, we provide LEAP\*, a support service that extends the life cycle of our equipment. Support for semiconductor production equipment, which consists of tens of thousands of parts, typically ends in seven to eight years after discontinuation. The main reason for this is due to the discontinuation of parts or the difficulty in maintaining safety and quality. Until now, equipment was replaced and older equipment was discarded. We are now able to provide a support service that extends the life cycle of equipment whose production was discontinued over 15 years ago by redesigning discontinued parts and by strengthening and restructuring our support system including repairs. Through LEAP, we support customers who have difficulty with replacement with newer equipment due to restrictions on change management of equipment specifications or operations, or who hope to continue using their equipment. By reducing equipment disposal and contributing to the continuous use of equipment over a long period of time, we promote initiatives to reduce the environmental impact of our support.

\* LEAP: Lifecycle Extension and Availability Program

#### **Global Expansion of Training for Customers**



We establish training centers all over the world, mainly at our development and production sites, and provide customers with training on equipment operation and maintenance so that products can be used safely.

With the deregulation of COVID-19 in fiscal 2023, we have carefully considered the circumstances in each country and region, conducting remote training, bearing in mind the various infection control measures while also gradually restarting training in-person at training centers and at customer sites.

We are efficiently conducting training leveraging our accumulated know-how in remote learning and training videos to flexibly deal with future changes in circumstances, keeping customer safety as the priority. We are also striving in the further provision of training environments, including continuous expansion of the equipment lineup at the training centers of our overseas subsidiaries.

# Sustainability Initiatives in the Value Chain

Our approach to sustainability is to practice our Corporate Philosophy by realizing our Vision. We identify the material issues and promote these initiatives. We will contribute to the resolution of social issues and development of industry and society as well as the achievement of SDGs by building a resilient management foundation and providing high-value-added products and services.

#### Main Initiatives in the Four Frameworks

#### Governance



- Corporate Sustainability Management Department established at headquarters and the sustainability initiatives are promoted throughout the entire Group
- Sustainability Committee is held twice a year attended by Corporate officers, General Managers and presidents of domestic Group companies and overseas subsidiaries to set short-, medium-, and long-term sustainability goals, manage progress, review sustainability-related policies and discuss initiatives on priority themes
- Important issues are reported and discussed at the Corporate Officers Meeting, the highest decision-making body on the executive side
- The executive officer in charge of sustainability reports to the Board of Directors on the Group-wide sustainability initiatives as necessary, and the Board of Directors supervise these initiatives

#### Strategy



- Based on the idea of "Creating Shared Value (CSV)," we aim to realize sustainable growth through the creation of social and economic value by solving social issues using our unique corporate resources and expertise
- As a semiconductor production equipment manufacturer, we define CSV, which we call TSV (TEL's Shared Value), as a contribution to the technological innovation in semiconductors, which are indispensable for the development of a dream-inspiring society. We will implement business activities based on TSV to contribute both to achieving SDGs—which are goals shared by the world—and to realizing a more abundant future
- "Product Competitiveness," "Customer Responsiveness," "Higher Productivity" and "Management Foundation" are identified as material issues. We aim for medium- to long-term profit expansion and continuous corporate value enhancement to create high value-added products and services while building a resilient management foundation

#### Risk Management



- Respond appropriately and promptly to risks that are growing increasingly complex and diverse as society and the business environment change. Established the organization to oversee the entire Group at our headquarters and carry out enterprise risk management<sup>2</sup> to promote more effective risk management
- Risks are identified across the entire Group and those risks with high probability of impact are identified as our material risks. Particularly material risks are subject to decision-making and supervision by the Board of Directors and Corporate Officers Meetings, and countermeasures are thoroughly implemented in cooperation with each Group company and related departments
- Risks and impacts that maybe faced in conducting businesses in order to achieve sustainable growth are accurately understood and viewed as opportunities for business growth, and appropriately addressed
- Refer to Risk Management on n. 69
- 2 Enterprise risk management: Group-wide systems and processes related to risk management activities

#### **Metrics and Targets**



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

#### **Human Resources**

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

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



**TEL Values** 



We looked back at the values accumulated since our founding and

what it means to be our company and summarized the codes of

conduct that we hope to honor in the future as the TEL Values. The

TEL Values—pride, challenge, ownership, teamwork and awareness—

management and employees working together as one, our flexible and

potential. We conduct a range of activities to promote the TEL Values,

including distributing a booklet in multiple languages, messages form

the CEO and other members of management, and sharing interviews

with employees that both experience and embody TEL Values in their

daily work. Through these initiatives, we communicate the importance

TEL Values from the moment someone joins us. We do this in a number

plans through group work, and discussion of what type of company we

of ways, including talks from management, consideration of action

want TEL to become. The TEL Values are an important set of values

that we want to pass down to future generations, so our employees

We operate in 83 sites in 18 countries and regions. We believe it is

backgrounds, experiences and attributes to share values and work

together as one toward value creation. We believe that each of our

demonstrating their full potential, will lead directly to our growth

Five Points for Motivation-oriented Management

4 Fair evaluations that recognize employee efforts and globally competitive rewards

as a company. Accordingly, we practice motivation-oriented

management. Specifically, we are implementing important

1 Awareness that our company and work contributes to society

5 Workplace with open atmosphere and positive communication

measures in line with the following five points.

2 Dreams and expectations of the Company's future

3 Opportunities to take on challenges

around the world strive to put these values into practice.

important for human resources with different cultural

employees, maintaining a high level of engagement and

**Motivation-oriented Management** 

of taking on new challenges without fear of failure, and departments

and Group companies collaborating to address issues. In our new employee training as well, we encourage understanding and practice of

are being put into practice, as representing our original approach to

rapid response to environmental change, and fully harnessing our



actively support their career development.

Diversity, Equity and Inclusion (DE&I)

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

As examples of important measures, we are operating a

common global job-based grading system (GTC: Global TEL Career-

Paths) and clarifying career paths for Individual Contributors (ICs)

(TCL: Technical Career Ladder), as well as adopting a performance

management system for promoting employee growth and

performance enhancement. In these and other ways, we are

developing a globally competitive human resource system to

create opportunities for employees to take on challenges, and

• Conduct a diversity-conscious talent pipeline (plan for developing human resources) for succession planning and achieve the target of increasing the ratio of female managers<sup>1</sup> to 8.0% globally and 5.0% in Japan (by fiscal 2027). We aim to further improve the ratio thereafter

# Ratio of Female Managers





- Taking into consideration that many of our employees are engineers, we actively invest in the use of recruiters and employer branding to hire female engineers at a level that is equal to or greater than the general ratio of female engineers<sup>2</sup> in each region
- Create an organizational structure where even those from outside of Japan can take on corporate roles through the use of technology and shared global human resources systems
- We promote collaborations between Japanese employees and employees of overseas subsidiaries, and cross-departmental
- We organize events such as "DE&I Talks" and other events with internal promotion leaders and external experts, create networking opportunities for employees with similar characteristics and experience, and hold roundtable discussions regarding careers before and after taking maternity/paternity leave and childcare leave
- 1 Include individual contributors in the number of managers
- 2 The ratio of females majoring in science or engineering

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

In March 2023, we held a DE&I Talk that was streamed simultaneously online to the Group companies worldwide. As the fifth of these events held, "equity" was added to the discussion this year, with the name "DE&I Talk" being used for the first time. While there have been no significant changes to the original purpose and policy of these talks, this addition aims to more proactively pursue the development of environments where diverse employees can play active roles.

In his opening speech at the event, the CEO stated "By continually driving motivation-oriented management, while improving diversity through our 3G policy, we aim to further grow the company." Guest speakers also helped deepen our understanding of DE&I, with one speech titled "The Importance of Equity: World Trends D&I to DE&I" and another titled "Corporate Transformation through Diversity: An Organization That maintains strength through its recognition of the "differences" from LGBTQ+."

#### Main DE&I Activities

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

- We create and publish reports on the DE&I activities of all of our Group companies, including overseas subsidiaries, to make the activities of each site more visible. We also communicate internally and externally through an internal newsletter, intranet, social media and other channels
- We hold Career Design Seminars for Women employees. With voluntary attendance of about 100 employees, participants acquire basic knowledge of such things as self-leadership skills for independent career planning. Participants explore their career potential at us by learning self-centered career design and personal strength-based leadership, etc.

- Employees have participated in NPO J-Win<sup>1</sup> programs since 2021.
   Enabling participants to meet personal role models and foster a readiness for career advancement, by conducting activities with members of other companies in external environments that have a high level of diversity, the programs help them increase willingness to take on the challenge of management positions, or senior director and above positions<sup>2</sup>
- We established the Employee Resource Group (ERG) to create networking opportunities for employees with similar characteristics and experience. Events are held on an ongoing basis, including Mommy & Daddy Talks, which are roundtable discussions regarding careers before and after taking maternity/ paternity leave and childcare leave
- An LGBTQ+ helpline was established in April 2021, and a congratulations and condolences system that includes samegender partners was adopted from October 1, 2022. The aim is to improve and expand systems and facilities going forward to ensure ongoing development of workplaces where everyone, not just the people concerned, can work with enthusiasm and energy
- New graduates and mid-career recruits are continually employed on the basis of whether they will work actively at us, regardless of gender, nationality, generation or other characteristic, by considering such aspects as their expertise, experience, and expectations for their future
- A competitive remuneration system based on responsibilities and contributions was established for all workers, even for reemploying people after reaching retirement age, to take advantage of experience, knowledge and skills learned at us
- NPO J-Win: Japan Women's Innovative Network was established in April 2007 as a corporate member-based organization with the aim of supporting the promotion and establishment of diversity management in companies.
- 2 Employees of a certain level or position based on the global human resources system

#### **Employee Engagement**

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

Based on the results of these surveys and on employee feedback, we endeavor to establish better workplace environments; at the same time, we are working to foster a better corporate culture that empowers all our employees to maximize their abilities in an open-minded environment, to engage energetically with their work and to participate in constructive discussions and exchanges of opinions. Examples of our measures include ensuring continued messages from the management; increasing opportunities for direct dialogue between management and employees on the current state of the company and its future; and providing training aimed at increasing employee awareness of safety, quality, compliance and other foundational management principles.

As a result of these initiatives, employee engagement scores improved in nearly all Group companies in Japan and overseas subsidiaries between fiscal 2016 and fiscal 2023. Our overall employee engagement score has risen by 18 points since fiscal 2016

and by 6 points since fiscal 2021, and in Japan our employee engagement score now falls within the top 25% of the overall benchmark. As our employee engagement score has risen, so our employee retention rate\* has reached an extremely high level, standing at 96.2% globally and 98.9% in Japan for fiscal 2023.

We believe that improving employee engagement is vital for providing increased value to our stakeholders. To this end, we intend to implement various measures in a continuous and effective manner, such as further enhancing our employees' work-life balance, improving work efficiency through DX, and strengthening safety, quality and compliance.

\* Calculated using data on turnover rate



#### **Developing Human Resources**

We are committed to the planned and structural development of human resources capable both of adapting to varied and continually changing business environments and of playing active roles on the global stage. We place importance on our employees' motivation, we work to improve their value, and we operate a human resources strategy around the world aimed at ensuring that both the company and its employees can grow together.

TEL UNIVERSITY is an in-house educational institution established to foster a culture of learning within the company and to provide training tailored to the needs of individual employees. The university helps employees proactively build their careers and realize personal goals for their own growth and development. TEL UNIVERSITY is focused on developing human resources indispensable to the growth of our company and, to this end, it carries out the initiatives listed below.

	New Graduates Junior Employees	Mid-level Employees	Managerial Individual Contrib		Top Management
	Introduct	ory programs (new g	raduates, mid-care	er recruits)	
Level- hased	OJT p	rograms (new gradu	ates, mid-career rec	ruits)	
Programs	Junior employee programs	Mid-level employee programs	Manager	programs	
				Leader programs	
		Technical p	rograms (seminars,	workshops)	
Goal-			Business skills		
based		G	lobal communicatio	n	
Programs			Career support		
		Comp	ulsory web-based tr	aining	

#### Global and On-demand Learning

Since all employees grow in different ways, we provide on-demand education that enables employees to learn what they want, when they want. In addition to group training, we are proactively utilizing e-learning programs and providing a common platform for 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 so that employees can gain a more concrete image of their own career development by learning and building up, experience. As an example, for engineers involved in maintaining equipment, we have established a skill improvement training system and are expanding globally that records the technical skills they have acquired. This system allows engineers to focus on acquiring the specific technical skills required for furthering their careers.

#### **Development of Succession Planning**

We have implemented a succession planning that identifies potential future leaders—with the capacity to assume key positions in the company and enhance corporate value in both the medium and long term—at an early stage and nurtures them. More specifically, the succession planning provides potential leaders with opportunities to build networks and develop broader perspectives through participation in external training and to receive 360-degree feedback\*. The management, including outside directors, also hold systematic reviews and discussions concerning the assignments executed by these potential leaders. We are also working to promote human resources development cycles at our business sites; for the managerial employees tasked with nurturing potential future leaders, we provide level-based training for various duties, with the goal of improving their skills in a practical manner.

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

#### Work-life Balance

#### **Work Styles and Offices**

We endorse work styles that contribute to a positive work-life balance, and are continually working to create environments that facilitate this. For example, we recommend that both mothers and fathers take advantage of our parental leave systems—one of several childcare leave systems we operate—and this has resulted in a high proportion of our employees returning to work after taking maternity/paternity leave and childcare leave. We also offer a range of work style programs, such as flextime system that allow employees to work flexible hours, and work from home system. We incorporate user feedback to improve our programs and promote efficient work styles that cater to diverse lifestyles and social situations.

We are engaged in building unprecedented new office environments that are work-friendly for all our employees and that support their endeavors.

To take one example, the Miyagi Technology Innovation Center we opened at Tokyo Electron Miyagi in 2021 features an "Innovation Area," which is a communal space for creating new technologies, and a "Creative Office," which is centered on a bright and open communication space.

We are also working on creating office spaces at our other sites that encourage interactions between different departments and that provide support for new innovations.

#### **Leave System**

We believe that employees are more productive when they can properly manage their work hours and take leave. Accordingly, we are working to eliminate long working hours, and to both enhance our leave systems and encourage employees to make use of them. We have set a medium-term target of ensuring that our employees take 80%<sup>1</sup> or more of the paid leave available to them. To this end, we educate employees on how to take leave in a systematic manner, we regularly monitor how much leave employees have available and we encourage management styles aimed at improving leave usage rates. For fiscal 2023, paid leave usage rates stood at 70%. This was higher than the previous period, despite the fact that COVID-19 discouraged employees from taking consecutive days of paid leave.

We also operate a unique "refreshment leave system" in different countries around the world, depending on the prevailing circumstances. This system aims to provide both mental and physical refreshment for employees, and so boost their motivation to work. In Japan, employees who have worked at the company for 10 years or more are granted special, supplementary paid leave of between two weeks and one month for every five years of continuous service. In fiscal 2023, 1,731 employees in Japan and 606 employees overseas took advantage of refreshment paid leave. We are also working to establish various other leave systems for different life events, including childcare leave, leave to care for a sick or injured child, childcare support leave<sup>2</sup> and paid leave to provide nursing care. Employees are permitted to extend childcare leave until the day the child reaches three years of age; employees are now also eligible for the reduced working-hours program for childcare until the child graduates from elementary school<sup>1</sup>.

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

#### **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.

#### Revision of our Human Rights Policy and the Promotion Framework for Respect for Human Rights

In 2017, we summarized our approach to human rights in our Human Rights Policy, referring to the United Nations' Guiding Principles on Business and Human Rights and the International Bill of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work referred to therein, the Ten Principles of the United Nations Global Compact, and the RBA Code of Conduct<sup>1</sup>. Our Human Rights Policy specifies five focus areas: Freedom, Equality & Non-Discrimination; Freely Chosen Employment; Product Safety & Workplace Health and Safety; Freedom of Association; and Appropriate Working Hours & Breaks/ Holidays/Vacations.

In April 2023, we revised our Tokyo Electron Group Human Rights Policy<sup>2</sup> in order to reflect the actual status of our initiatives. adding "Governance" and "Grievance Mechanisms" as new items

and reviewing existing contents.

The implementation of initiatives based on this Policy is deliberated at the Sustainability Committee, and approved at the Corporate Officers Meeting attended by the CEO. The executive officers in charge of sustainability report on these initiatives at the Board of Directors, with the Board undertaking supervision.

We are working to disseminate this Policy not only among our executives and employees but also among our suppliers, and are providing online education about human rights.

- RBA Code of Conduct: A set of standards established by the RBA (Responsible Business Alliance) for supply chains in the electronics industry, to ensure that labor environments are safe, that workers are treated with respect and dignity, and that companies take responsibility for the environmental impacts of manufacturing processes and procurement.
- 2 Tokyo Electron Group Human Rights Policy: www.tel.com/sustainability/management-foundation/human-rights/index.html

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



Commitment to respecting human rights Revision of Tokyo Electron Group

- Human Rights Policy
- Awareness and implementation
- Education



Assessment of human rights risks in business and supply chains

- Human rights risk assessment
- Human rights impact assessment



Actions to reduce risks based on assessment results

- Feedback sheet publication Program development and
- review according to issues



Regular disclosure of information • Publication of the Integrated Report

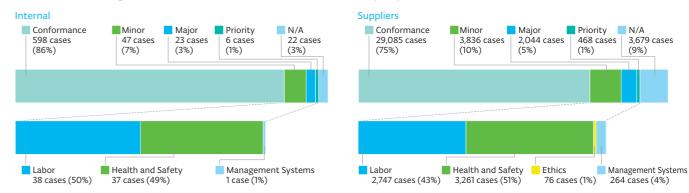
Postings on the website

#### **Promoting Human Rights Due Diligence**

We conduct human rights due diligence annually to identify human rights risks and develop corrective actions. In fiscal 2023, we conducted a survey based on RBA auditing standards of 12 Group companies in Japan and overseas and approximately 680 suppliers involved in materials, staffing, customs services, packaging, etc.

Consequently, potential/actual risks were found in 11% of our Group companies and 16% of suppliers, with labor- and health and safety-related risks comprising the majority of the risk breakdown. We conduct analysis of each of these identified risks and provide

individual feedback to each of our Group sites and suppliers, requesting to discuss the impact of these risks and conduct corrective actions to reduce them, while we confirm the progress and effectiveness of such corrective actions through periodic monitoring. These corrective actions include formulating policies and procedures of various kinds, providing employees with notifications and explanations of employment terms, reinforcing management of working hours, implementing evacuation drills and Number and Percentages of Conformance and Potential/Actual Risks (Priority/Major/Minor)\*



\* 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 reme

Major: High-urgency issues which are at significant risk and require immediate remediation Minor: Minor issues and risks recognized in each area which require remediation

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

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

Main Items Identified as Potential/Actual Risks through Human Rights Due Diligence for Which Corrective Actions Are Being Implemented

	Main Contents	Internal	Suppliers		Main Contents	Internal	Suppliers
	Policies/procedures on forced labor/bonded labor/child labor		~		Policies and risk assessment for pregnant workers/nursing mothers	<b>~</b>	
	Advance notifications and explanations of employment terms	~	•		Access to emergency exit, inspection of guide lights and emergency lighting fixtures		•
	Retention of personal identification documents by the company	<b>~</b>			Implementation of evacuation drills including nighttime, corrective actions of any issues that are detected	•	~
	Working hours	<b>~</b>	<b>*</b>				
Labor	Consecutive working days		~	Health and	Formation and training of emergency response team		~
	Policies and procedures prohibiting disciplinary wage deductions		<b>~</b>	Safety	Deployment of first aid personnel		<b>*</b>
	Policies and procedures for religious				Adequate first aid kits in place	<b>~</b>	
	practices	<b>~</b>	~		Identification and management of physically		
	Policies and procedures for freedom of				demanding work		<b>Y</b>
	association	•	•		Awareness and training on health and safety, and mechanisms for workers to express		
	Respect for the right to peaceful assembly	<b>*</b>	<b>~</b>		concerns about safety		
			-	Management Systems	Establishment and execution of complaint- handling mechanism		~

#### **Grievance Mechanism**

We recognize the importance of having highly effective grievance mechanisms related to human rights issues and have established a reporting system with a high level of confidentiality for Group employees and our suppliers and all other stakeholders in Japan and overseas. We have established and are operating an internal point of contact that can be accessed 24 hours a day, 365 days a year and accommodates multiple languages, as well as an external point of contact that allows direct consultation with an outside law

firm. Through these measures, we have developed grievance mechanism that are able to deal reliably with grievances which could have negative impacts on human rights.

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

#### Compliance

#### **Approach to Compliance**

To practice our 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 Group 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, we have appointed a Chief Compliance Officer (CCO) and established a dedicated Compliance Department at

our headquarters. We have also appointed Regional Compliance Heads at key overseas sites, and have established a framework for direct reporting to the CCO and Compliance Department.

#### **Compliance Initiatives**

#### **Business Ethics and Compliance**

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

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

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

We have globally established the Basic Policy on the Prevention of Bribery and Corruption and the Guidelines for Gift, Hospitality and Entertainment in the area of anti-bribery and corruption, and the Basic Policy on Competition Law Compliance and Guidelines in the area of competition laws. In order to prevent violations, we regularly provide training to promote understanding of these Policies and Guidelines and ensure their permeation throughout the entire Group. Internal Reporting System

We have established an internal reporting system that ensures complete confidentiality, anonymity and the prohibition of retribution and unfavorable treatment, so that employees can safely and in peace of mind 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. In addition, the introduction of an internal leniency system, whereby any disciplinary action may be reduced or exempted in the event that the employee involved in a compliance violation has made a report or sought advice on their own volition, is encouraging employees to proactively provide information and is leading to problems being discovered and resolved at earlier stages.

As part of this internal reporting system, we have established and are operating the Tokyo Electron Group Ethics & Compliance Hotline—a global common internal point of contact that uses a

Global Response to Internal Reports



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

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

In fiscal 2023, a total of 130 reports and consultations were received via the internal reporting system, of which 19 were recognized as compliance violations. The reports and consultations 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. The CCO carried out compliance training for managers, which included coverage of prevention of harassment and the importance of establishing an appropriate workplace environment.

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

Breakdown of Report/Consultation Contents



#### **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. Any issues which are identified are shared among the relevant departments which then work on improvement measures, under the supervision of the CEO. We will continue striving to create value across the supply chain by working to build relationships of trust with our suppliers, who support our business as partners, and by working together to deploy our operations in compliance with global standards.

#### **Initiatives in the Supply Chain**

#### **Sustainability Operations**

To keep track of our suppliers' engagement in sustainability, we conduct an annual 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 ask them to carry out any improvement activities required. In fiscal 2019, we completely revised the content of the assessment based on audit standards stipulated by the RBA, and in addition to materials<sup>1</sup> suppliers, included staffing<sup>2</sup> and logistics<sup>3</sup> suppliers in the scope of surveys.

In fiscal 2023, we had Tokyo Electron Technology Solutions (Yamanashi), one of our main manufacturing sites in Japan, undergo RBA auditing, and have carried out the necessary remediation activities together with our suppliers. Going forward, we will further promote compliance with industry codes of conduct through having our other major manufacturing sites undergo similar auditing, including those located overseas, and will expand sustainability initiatives throughout the supply chain.

To ensure that all people in our supply chain can work of their own free will, we have expressly stipulated our zero-tolerance policy for forced labor and bonded labor, and have communicated this to our major suppliers.

- Materials suppliers: Assessments have been conducted for suppliers accounting for more than 80% of our procurement spend (85% from fiscal 2023)
- 2 Staffing suppliers: Assessments have been conducted since fiscal 2019 on 100% of employment agencies and contracting companies (internal contractors)
- 3 Logistics suppliers: Assessments have been conducted since fiscal 2019 on 100% of customs-related operators

#### Responsible Procurement of Minerals (Conflict Minerals)

We see taking action against conflict minerals (3TG<sup>4</sup>) 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 CMRT<sup>5</sup> and referring to the OECD<sup>6</sup> Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. In fiscal 2023, we conducted our ninth annual survey on potential conflict minerals. As a result, we were able to identify 234 smelters conformant with RMAP<sup>7</sup> (one of the standards used for determining that minerals are not connected with conflict). In addition, none of the materials we procured were found to contain 3TG involved in conflict.

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

#### **Procurement BCF**

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. There are now approximately 30,000 registered production sites as of fiscal 2023, and post-disaster impact assessments (conducted when disasters occur) have been implemented five times. 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.

Supply Chain Sustainability Process



#### **Environment**

#### E-COMPASS

As an industry leader in the domain of environmental management, we are rolling out E-COMPASS (Environmental Co-Creation by Material, Process and Subcomponent Solutions), our environmentfocused initiative. Through E-COMPASS, we will work together with our customers and partner companies to preserve the global environment by promoting technological innovation and aiming to reduce the environmental impact of semiconductors throughout the entire supply chain, centering on the three following perspectives.

- Pursuing higher performance and lower power consumption in semiconductors
- Achieving both the process performance and environmental performance of equipment
- Reduction of CO<sub>2</sub> emissions in all business activities

#### E-COMPASS Pursuing higher device Achieving both the Reduction of CO<sub>2</sub> emissions in nance and lower pov process performance and all business activities nmental performance of equipment

#### **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. We also issue reports on the state of progress of these initiatives to management, including the CEO, through the framework of conferences set out in the following table.

In accordance with the ISO 14001 certification that the entire Group (mainly our manufacturing subsidiaries) obtained in March

2017, we have identified environmental impact assessments and useful environmental aspects within this standard, and are executing a standardized group format for environmental management programs and internal audit checklists. To enable compliance with the environmental laws and regulations of various countries, which are frequently revised, we are making efforts to gather information at earlier stages and taking a proactive stance towards compliance. We were once again free from environmental incidents, violations and legal proceedings in fiscal 2023.

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

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

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

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

Our total CO<sub>2</sub> emissions of Scope 1 and Scope 2 is 42 kilotons, while Scope 3 as the sum of upstream and downstream activities accounts for a total of 14,333 kilotons, 99.7% of the total. Of this,

CO<sub>2</sub> emissions when using products stand at 9,854 kilotons, about 70% of the total. This is why we consider the development of products with low CO<sub>2</sub> emissions during operation to be important. In fiscal 2023, we also revised our calculation method for emissions resulting from the use of products and services we have purchased and products we have sold, in order to calculate our Scope 3 emissions with greater accuracy.

Upstream 4,354 Scope 3 Upstream kilotons Not from our Group	TEL 42 Scope 1, 2 kilotons Own emissions	Downstream 9,979 Scope 3 downstream kilotons Not from our Group
Category 1 Purchased goods and services — 4,053 kilotons Category 2 Capital goods — 224 kilotons Category 3 Fuel- and energy-related activities — 27 kilotons Category 4 Upstream transportation and distribution — 19 kilotons Category 5 Waste generated in operations — 3 kilotons Category 6 Business travel — 14 kilotons Category 7 Employee commuting — 14 kilotons	Scope 2 — 20 kilotons	Category 9 Downstream transportation and distribution  120 kilotons  Category 11 Use of sold products  9,854 kilotons  Category 12 End-of-life treatment of sold products  5 kilotons

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

#### Scope 2:

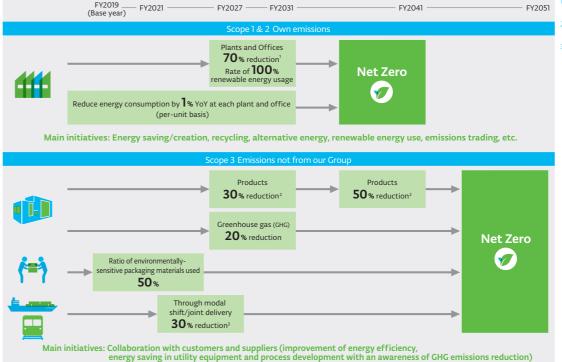
Indirect GHG emissions from use of electricity, steam and heat we purchased

Scope 3: Emissions from corporate value chains (excluding Scope 1 and 2 emissions), such as product transportation. employee business travel and major outsourced production processes Scope 3 is divided into unstream activities, which include emissions associated with purchased or procured products and services, and downstream activities which include emissions associated with sold products and services

#### Medium- and Long-term Environmental Goals and State of Progress

We have set the following medium- and long-term environmental goals

Goals and Initiatives to Achieve Net Zero



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

We aim to achieve a rate of 100% renewable energy usage and reduce total CO<sub>2</sub> emissions at plants and offices by 70% by fiscal 2031 (compared to fiscal 2019), and net zero by fiscal 2041. The company-wide rate of renewable energy usage was 91% in fiscal 2023. As a result of this, and assisted also by energy-saving activities, we have reduced total CO<sub>2</sub> emissions from our plants and offices by 76%, enabling us to reach our target ahead of schedule.

CO<sub>2</sub> emissions. Reestablish due to goal achieved

fiscal 2019)

to fiscal 2019)

Total CO<sub>2</sub> emissions (compared to

Per-wafer CO<sub>2</sub> emissions (compared

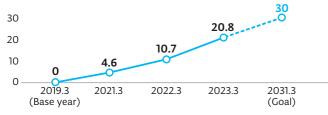
Reductions in CO<sub>2</sub> Emissions through the Introduction of Renewable Energy



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

We aim to reduce per-wafer  $CO_2$  emissions by 30% by fiscal 2031 and by 50% by fiscal 2041 compared to fiscal 2019, and realize net zero by 2051. In fiscal 2023, per-wafer  $CO_2$  emissions had been reduced by 20.8% compared to the baseline period.

#### CO<sub>2</sub> Emissions Reductions of Products (%)



#### **Logistics Initiatives**

In fiscal 2023, we proactively made progress with the adoption of reinforced corrugated cardboard packaging and with bringing about modal shifts in transportation. Reinforced corrugated cardboard is lighter in weight, which is expected to reduce  $CO_2$  emissions during transportation. It is also recyclable and has a lower environmental impact than wood. By the fourth quarter of fiscal 2023, the switchover rate (from wooden crates to reinforced corrugated cardboard) stood at 20.3%. In addition,  $CO_2$  emissions from logistics were reduced by 11.4% as a result of modal shifts

(including greatly increased usage of ferries between Osaka and Fukuoka) and joint delivery.

In January 2022, we committed to our greenhouse gas emission reduction goals under the SBT initiative\*, and issued an application for our Scope 1, 2 and 3 goals in February 2023. We plan to receive certification of our goals in fiscal 2024. We will continue to work as one company-wide on initiatives aimed at achieving our long-term environmental goals by fiscal 2051.

\* SBT: Science Based Targets. The Paris Agreement aims to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels. SBT is an international initiative to certify greenhouse gas emission reduction targets set by companies for the next five to 15 years, consistent with the levels required by the Paris Agreement.

#### **Initiatives for Product Development**

We are working proactively on the development of products with reduced environmental impact. In fiscal 2023, we released several types of equipment with superb environmental performances which utilize our technology, including Ulucus™ L, a laser edge trimming system which reduces deionized water (DIW) consumption, dust generation and wastewater generation, and CELLESTA™ MS2, a single wafer cleaning system which reduces utility usage during processing while ensuring high productivity.

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

In fiscal 2023, we formulated the following commitments to biodiversity and forest conservation.

#### Biodiversity and Forest Conservation Commitments

The benefits of biodiversity are essential for the sustainable development of society. However, human society's activities are having a major impact on biodiversity. Through "TEL's Shared Value," we are working to resolve social issues through business activities that make use of our expertise. We aim to realize "Net Positive Impact (NPI\*)" across our entire value chain through ongoing initiatives to preserve biodiversity. We believe that promoting activities in partnership with our stakeholders will help to boost our corporate value in an ongoing manner. As part of these efforts, we aim to achieve zero deforestation through working proactively to protect forests, which are home to ecosystems comprising numerous organisms and which constitute important CO<sub>2</sub> sinks.

\* NPI: When loss of the natural environment cannot be avoided and the decision is instead taken to generate gains for the natural environment to offset the losses, ensuring that losses and gains are balanced constitutes "No Net Loss (NNL)," while going beyond this by ensuring that the gains outweigh the losses constitutes "Net Positive Impact (NPI)."

Refer to "Environment" on our website for details: www.tel.com/sustainability/management-foundation/environment/index.html

#### **Initiatives with Suppliers**

As part of our E-COMPASS initiatives, we held a briefing session with all of our materials suppliers in March 2022, based on the notion that reinforcing our partnerships with our suppliers is key to the preservation of the global environment and to the "data-driven society" which will be a growing reality in the years ahead. At this briefing session, we informed our suppliers of the status of our initiatives, and shared measures for mutual growth through co-creation with them as partners. We also conducted the "E-COMPASS Survey" to confirm matters including the state of suppliers' environmentally friendly products development, suppliers' activities for reducing the environmental burden of their operations, and the status of their products' compliance with environmental laws and regulations. In December, we awarded three of our suppliers the status of "Environmental Partners" at TEL Partners' Day, in recognition of their tremendous cooperation with

the activities of E-COMPASS. In February 2023, 53 suppliers which are excellent in terms of compliance with environmental laws and regulations and CO<sub>2</sub> emission reduction activities were certified as "Green Partners" as an expression of our feelings of respect and gratitude. In March 2023, a briefing session and survey were carried out as a continuation of last year's session and survey, and activities based on the results of these have been developed with suppliers.

Achieving net zero by 2050 will require not only reductions in  $CO_2$  emissions within Tokyo Electron itself but also substantial reductions at our customers' and suppliers' production lines. To achieve this goal, we will continue to develop and enhance the E-COMPASS program as we move forward with our activities. We will work proactively to preserve the global environment across the entire supply chain through our partnerships with customers and suppliers.

#### 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.

Status of Initiatives Related to Recommendations of the TCFD

Contents
Promotion Department and the Corporate Sustainability Management Department at atives for the TCFD under the entire Group and opportunities and progress towards our goals have been deliberated at the dat the Corporate Officers Meeting attended by the CEO
environment and sustainability issues report on these initiatives to the Board of upervision emprised of members appointed by executives of the headquarters and Group onitored, and the achievement of these goals is promoted
nto account the following points in order to identify medium- to long-term risks and is for our business  d by climate change and status of damages NGOs and local communities and taxation vable energy and energy saving v external agencies and research results
transition risks including rising energy costs associated with fuel and energy taxes, ed physical risks such as the impact of abnormal weather. On the opportunity side, dress climate change through technological development
nities, we are implementing the findings from our scenario analyses into our business as aimed at reducing greenhouse gas emissions across the entire supply chain and environmental goals, through introducing renewable energy and providing innovative ontribute to lower power consumption in electronic products. We will increase our ange) as a company by periodically reviewing the identified risks and opportunities
ment <sup>1</sup> to identify a wide range of risks arising in business activities, and have ing climate change as a key risk having high impact and probability of manifestation, is risk sures to minimize the risks of these "Environmental Issues," and are monitoring the derstand the status of risk control and implementing the PDCA cycle for management any-wide risk management initiatives that are recommended by relevant divisions are facilities and divisions of the Group companies, after approval by the council, which includes the corporate director in charge of the environment ition to implementing measures to reduce CO <sub>2</sub> emissions at our key manufacturing are pursuing the adoption of renewable energy on a global scale on the development of a range of environmental technologies and reducing CO <sub>2</sub> based on recognition of the importance of providing products that generate lower are emissions in our entire value chain are generated during use of products after sale and natural disasters caused by abnormal weather and other factors, and are not measures to ensure that business operations can be maintained. We have I disasters at our key manufacturing sites in Japan, and confirmed such risks to be low.
to help develop a data-driven society and preserve the global environment across quipment technology, we are contributing to enhancing the performance and emiconductor devices being used around the world. In process performance and environmental performance for semiconductor four business activities
emi :h pi

Refer to Risk management on p. 69

<sup>2</sup> Refer to E-COMPASS on p. 51 and Initiatives with Suppliers on p. 53

 $<sup>3\,</sup>$  Refer to Medium- and Long-term Environmental Goals and State of Progress on p. 52

#### Chapter 3

#### Value Creation by the Value Chain

Anticipated Risks and Opportunities of Climate Change Impact and Our Response

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

Type (Scenario)	Risk Items	Timeline of Risk Manifestation	Anticipated Risks	Impact on Tokyo Electron	Risk Evaluation	Our Response
	• Carbon tax <sup>2</sup> and increased energy costs	Short- to medium- term	It has been projected that the following levels of carbon tax will be levied: Fiscal 2026: Approx. 9,750 yen/t-CO <sub>2</sub> Fiscal 2041: Approx. 26,650 yen/t-CO <sub>2</sub> Soaring electricity/ fuel costs	Assuming that our greenhouse gas (GHG) emissions and renewable energy usage levels remained at the levels of fiscal 2023, the carbon tax burden would rise as follows: Fiscal 2026: Increase of 400 million yen/year Fiscal 2041: Increase of 1.1 billion yen/year Increased transportation costs Increased trocurement costs (energy costs would be passed on to suppliers)	Low~ Middle	Promote energy-saving and adopt renewable energy at plants and offices in order to achieve the medium-term environmental goals. Furthermore, as a result of adopting renewable energy, the increased burden from fiscal 2023 levels due to the introduction of a carbon tax will be reduced by 1.1 billion yen for fiscal 2026 and 3.2 billion yen for fiscal 2041 compared to the amounts originally estimated in fiscal 2021
Transition Risks (1.5°C scenario)	Responses to environmental challenges including climate change and environment-related laws and regulations	Short- to long-term	Poorer evaluations among customers, investors, non-governmental organizations (NGOs) and local communities Delays in our responses to need to meet customers' requirements and demands and energy-related regulations	Increased reputational risks Increased costs of capital investment/R&D Decreased net sales if we are unable to meet customers' requirements and demands Legal proceedings and fines if regulations are violated	Low~ High	Develop activities to achieve medium- and long-term environmental goals through E-COMPASS activities in the supply chain (1) Develop semiconductor production equipment technology that contributes to enhanced performance of semiconductor devices and lower power consumption (2) Achieving both the process performance and environmental performance of equipment (development of technology to achieve reduction of CO <sub>2</sub> emissions per wafer during the use of our products, etc.) (3) Reducing CO <sub>2</sub> emissions in all business activities (promotion to save energy in the supply chain and adoption of renewable energy, etc.) Respond appropriately and promptly to environmental laws and regulations revised in each country Conducting risk management, leveraging TCFD framework and our support for the TCFD Promote disclosure of information on the above activities through integrated reports, our websites, etc.
Physical Risks (4°C scenario)	• Abnormal weather	Short- to medium- term	• Impacts on us, our customers and suppliers (supply chain disruptions, production/shipping delays, operation stoppages and other factors)	<ul> <li>Increased procurement costs</li> <li>Decreased net sales</li> <li>Increased insurance premiums</li> </ul>	High	Pursue the updating of our business continuity planning (BCP) based on future planning within our business continuity management (BCM), and carry out periodical BCP drills in line with the plans Implementation of risk response through suppliers' BCP assessments. Survey and evaluate risks and confirm the level of response to flood/landslides based on hazard maps of floods/landslides for suppliers as part of our surveying processes, and undertake follow-up of responses to such risks when necessary Set out standards for a company-wide response to storm/flood damage (heavy rain, typhoons etc.), while planning the development of training for all employees on responding to storm/flood damage Maintain a database of suppliers' production sites to promptly identify impacted suppliers and quickly collaborate in recovery efforts Enroll in insurance in preparation for disasters resulting from abnormal weather
	Higher temperatures	Medium- to long-term	• Increased usage of air conditioning and chillers in clean rooms and others with rising temperatures	• Increased energy costs	Low	
	• Improved operational efficiency relating to the environment	Short- to medium- term	• Higher productivity	• Reduced energy costs	High	Develop activities to achieve medium- and long-term environmental goals through E-COMPASS activities in the supply chain
Opportunities (Common)	Initiatives that aim to respond proactively to climate change and generation of added value to products and services through technological innovation     Building resilience in our global operations	Medium- to long-term	Promote innovation toward development of low-GHG products and services     Establish competitive superiority and business opportunities, increase net sales by creating new value, including the development of equipment and technologies that contribute toward the manufacture of low-power consumption devices	• Increased net sales	Middle ~High	(Refer to (1), (2) and (3) above for contents) Generate innovations in environmental technology when responding to climate change, and to environmental regulations across the supply chain Globally promote the latest in research and development to continually supply the high-value-added Best Products with innovative technology in a timely manner

Risk evaluation: Sets out the findings of evaluations of the impact of risks within Tokyo Electron.

#### Safety

#### Approach to Safety

Under the "Safety First" slogan, everyone at Tokyo Electron, from top management to field representative, is actively and continuously improving safety and promoting health, giving safety and health the highest priority when carrying out different 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 equipment design<sup>1</sup> to reduce the risks posed to humans by incorporating the assessment results in the design. We conduct global surveys of increasingly strict laws and regulations and conduct compliance checks through third-party assessment bodies to ensure conformity with international safety standards and SEMI Standards<sup>2</sup> on the 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 subsidiaries.

- 1 Safe equipment design: A design concept that eliminates the cause of the machine's harm to humans through the safety design of the machine
- 2 SEMI Standards: SEMI Standards are regulations formed by SEMI, an international industry body which serves manufacturers of semiconductor production equipment, FPD production equipment, PV power generation equipment, materials and the like, to unify all of these international industrial thousands.

#### TEL Incident Reporting System (TIRS)

In the event of an incident, we quickly share information with all parties involved, and follow up with the relevant department to

confirm the incident response by operating TIRS, and implement measures to prevent reoccurrence.

#### **Safety Training**

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

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

Safety technical training is a more specialized type of program aimed at engineers who work on production lines and in cleanrooms,

and is provided in the form of refresher training each year. In addition, we provide training on safety rules, laws and regulations in various countries and regions as necessary for overseas transferees.

As a result of these ongoing safety-related initiatives, TCIR\* became 0.33 in fiscal 2023, top class in the semiconductor production equipment industry. We will make further efforts toward achieving the target in our Medium-term Management Plan of 0.10 or less.

 TCIR: Total Case Incident Rate, Number of workplace injurie per 200,000 work hours TCIR 0.33

#### **Incident Prevention Initiatives**

We are deploying a variety of activities with the aim of creating a safer working environment.

#### **Experiential Training and VR (Virtual Reality)**

We are striving to increase danger awareness and prevent incidents by implementing experiential training using realistic simulated experiences such as falling from a high place, electric shock and incidents caused by getting trapped between objects. We aim to improve the effectiveness of such training still further by developing our own proprietary VR using contents that are aligned with our operations.

#### **Comprehensive Safety Inspections**

We carry out regular safety inspections of the entire Group based on the more than 200 safety inspection items that we have prepared relating to the various services and equipment installation work carried out at customers' onsite operations, work on our own production sites and the internal management of company equipment.

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

#### Feedback on Safety Specifications

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

#### **Safety Activities for Suppliers**

In addition, when we ask our suppliers to carry out work, we work to promote safety activities by sharing in advance written materials that set out our basic rules for work safety, customers' rules and the like.

<sup>2</sup> Carbon tax: We referred to the International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario for the increase in tax associated with GHG emissions. 1 U.S. dollar was converted as 130 yen.

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

#### Quality

#### **Efforts for Quality Improvement**

In order for each employee to correctly understand and practice quality assurance activities, it is important to clearly define the goals to be achieved, and to create an environment and foster a culture in which those goals are widely understood. From the ideal form, we established "Our Approach to Quality" and "Quality" Policy" and communicate the importance of quality to our employees 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, reassess and deploy our quality education from time to time and visualize appropriate quality information.

Through these initiatives, employees thoroughly confirm each other's quality on various situations, leading to improvement and growth of business processes. We are striving to provide highquality products and services that exceed customer expectations.

#### 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 have established the Quality Policy as follows and are striving to practice this policy.

#### **Quality Policy**

#### 1 Quality Focus

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

#### 2 Quality Design and Assurance

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

#### 3 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.

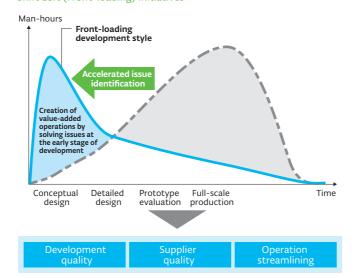
We have established regulations based on our company-wide quality policy compiled in the TEL Manual (TM) and the TEL Guidelines (TG) for each major business category, such as development, design, manufacturing and service, and we are using these regulations in the entire Group including manufacturing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

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

In addition, by implementing self-process assurance, we conduct strict quality-related risk management and development/ design inspections from the development stage, and strive to thoroughly verify customers' operations using simulations. Through this self-process assurance activity, we work to improve the accuracy of each process and reduce the reworking costs\*, which enables employees to create time to focus on high-value-added work in the upstream processes and also leads to the promotion of "Shift Left" (front-loading).

\* Reworking costs: Costs incurred by going up the chain of processes and reworking when there is

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



#### **Continuous Improvement of Business Operations and Creation of New Values**

#### **Initiatives of Digital Transformation (DX)**

Based on the idea that DX initiatives are a means and an opportunity to achieve the management vision and the company management plan and to create corporate value, in January 2021, we formulated the TEL DX Vision and the TEL DX Grand Design.

The main purpose of DX activities is to digitally accelerate and strengthen the key management measures of the "four material issues," with product transform and business transform\* as the main activities. In product transform, we will solve high-level issues while repeating the processes of (1) Recognition (sensing and monitoring), (2) Analysis and prediction, (3) Control and (4) Learning and evolution (autonomous), and we will strive to improve customer value. In addition, in business transform, we will grasp the current state of internal business, as well as envision how work should be like and change the way we use digital tools and our business methods to improve the company's capital efficiency.

At the same time, we are promoting the use of digital

technology in our management foundation and business support departments, which are necessary to carry out these activities.

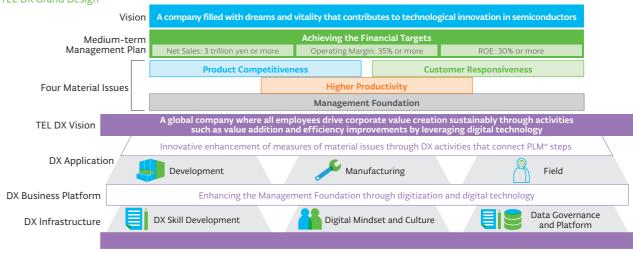
In addition, we will define the human resources necessary for promoting DX (DX engineers), design a training plan for each necessary skill and actively work on this training. Furthermore, we are not only training DX engineers but also employees that can use data in their everyday work.

In May 2023, the headquarters has been recognized as a DX-certified business operator under the Digital Transformation (DX) Certification initiative V Digital Transformation established by the Ministry of Certification

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

Economy, Trade and Industry.

TEL DX Grand Design



\* PLM: Product Lifecycle Management

#### **Continuous Improvement of Business Operations**

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

We have completed the implementation of this system at the headquarters in fiscal 2022 and at the spare parts warehouse in Japan in fiscal 2023. Going forward, we will make maximum use of

the knowledge we have gained through the process so far, and will proceed with the implementation of the system to our overseas subsidiaries and manufacturing sites in Japan. In addition, we will work with our partner companies to realize a globally integrated system by developing functions and others to improve operations, increase efficiency and further enhance system performance.

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

Overview of the New Enterprise System ■IT System ■ Key Processes ERP (Sales, Inventory, Accounting)

#### **Corporate Governance**

#### **Corporate Governance System**

#### **Basic Stance**

We regard the improvement of our corporate governance structures as important for achieving success in global competition and realizing sustainable growth. To that end, we have built a structure which utilizes to the maximum the worldwide resources we possess and have worked to incorporate a wide range of opinions to strengthen our management foundation and technology base, establishing a governance structure capable of ensuring that we attain global-level

earnings power. We have established the Corporate Governance Guidelines\* and outlined the corporate governance structures that we have developed and reinforced to date, in advance of other companies.

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.

\* Refer to "Corporate Governance" on our website for details: www.tel.com/about/cg/

#### **Characteristics of Our Corporate Governance**

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

- Outside directors make up half of our corporate directors
   (Three outside directors and three inside directors)
- Two female directors among six corporate directors
- Outside directors make up majorities in the Nomination Committee and Compensation Committee, including their respective chairpersons

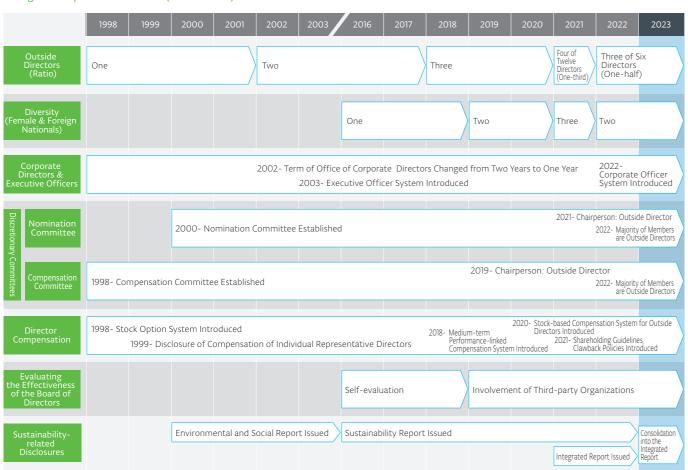
#### Strengthening the Functions of the Executive Side

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

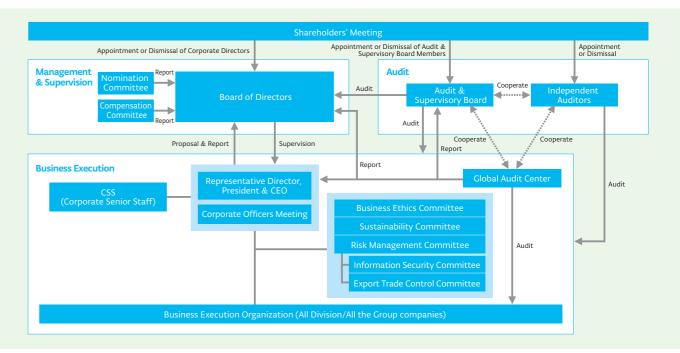
#### Advanced Initiatives Taken Ahead of Other Companie

- Introduction of stock-based compensation system for outside directors
- Introduction of Shareholding Guidelines for corporate directors, corporate officers and executive officers and Clawback Policies for executive directors and corporate officers

Changes in Corporate Governance (Since CY1998)



#### Corporate Governance Framework



Composition Three outside directors and three inside directors and three inside directors and three inside directors and corporate officers also attend, to share opinions and give reports  Chairperson Inside director (non-executive)  Number of Meetings Tin fiscal 2023  Composition Two outside directors and one inside director Chairperson Outside director Outside director Outside director Outside director Outside director Number of Meetings Tin fiscal 2023  Deliberation Topics Appointment and dismissal of corporate directors and the CEO, candidates of independent outside directors, status of successor development, other topics	board of Directors	Audit & Supervisory Board	Nomination Committee	Compensation Committee
	Three outside directors and three inside directors  Audit & Supervisory Board member and corporate officers also attend, to share opinions and give reports  Chairperson Inside director (non-executive)  Number of Meetings	Three outside Audit & Supervisory Board members and two inside Audit & Supervisory Board members Chairperson Inside Audit & Supervisory Board member Number of Meetings	Two outside directors and one inside director  Chairperson Outside director  Number of Meetings Il in fiscal 2023  Deliberation Topics  Appointment and dismissal of corporate directors and the CEO, candidates of independent outside directors, status of successor	Two outside directors and one inside director  Chairperson Outside director  Number of Meetings 10 in fiscal 2023  Deliberation Topics The policy and the system for compensation received by corporate directors and executive officers of the Group, individual compensation amounts for the representative

#### Committees on the Executive Side

Committee Name	Main Composition	Composition Purpose		
Business Ethics Committee	Executive officers in charge Division general managers Presidents of relevant companies	Verifies the status of practice in accordance with the Code of Ethics Proposes and supports training and educational programs relating to business ethics Confirms compliance promotion activities	Twice annually	
Sustainability Committee	Executive officers in charge Division general managers Presidents of relevant companies	Considers and formulates sustainability-related policies Sets and manages sustainability goals (short-, medium- and long-term) Implements company-wide projects (the environment, human rights, RBA, etc.)	Twice annually	
Risk Management Committee	Executive officers in charge Risk owners of individual risks Presidents of relevant companies	Performs and shares information on company-wide risk management Establishes systems and mechanisms to investigate and counter risk scenarios for individual risk items in collaboration with risk owners	Twice annually	
Information Security Committee	Executive officers in charge Officers in charge at relevant companies	Spreads awareness of information security strategies and policies Shares information on information security planning and the current situation	Twice annually	
Export Trade Control Committee	Executive officers in charge Presidents of relevant companies	Promotes export compliance activities	Annually	

#### **About Corporate Officers**

As a leading company in the semiconductor production equipment industry, where technological innovation is rapid and market changes are active, we introduced our unique Corporate Officer system in June 2022 to further strengthen governance and implement quick decision-making and agile operational execution. Corporate officers are the highest-level officers on the executive side within the Group; unlike executive officers, who have responsibility for particular areas, corporate officers have responsibility for the management of the entire company, taking the same perspective as the CEO. Corporate officers also attend Board of Directors meetings, where they give briefings on operational execution, to ensure that the Board of Directors is able to supervise the executive side in an appropriate

manner, and that discussions at the Board of Directors meetings can be put to use appropriately and speedily in operational execution, in order to promote proactive management.

We have also established the Corporate Officers Meeting, the highest-ranking decision-making body on the executive side of the Group. Corporate Officers Meeting sessions are held once a month as a basic principle, with inside directors and inside Audit & Supervisory Board members taking part in addition to six corporate officers; at the sessions, participants help to ensure agile operational execution by deliberating and making decisions on key items on the executive side, including those items for which authority has been delegated from the Board of Directors to the executive side.

Highest position on the executive side within the Group	Has responsibility not only over their own scope of execution but over the execution of management of the entire company, taking the same perspective as the CEO	
Members of the Corporate Officers Meeting	Promote the appropriate delegation of responsibility to the executive side from the Board of Directors, to ensure prompt decision-making and agile operational execution	
Attendance at Board of Directors meetings (without voting rights)	Utilizing the contents discussed at the Board of Directors meetings for appropriate and speedy operational execution, to ensure that the Board of Directors' highly effective supervisory functions can be harnessed to the full	

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

CEO	<ul><li>Reports on status of business execution by CEO (each meeting)</li><li>Sharing of CEO missions</li></ul>
	Market environments over the medium to long term and our growth plans
	<ul> <li>Medium-term Management Plan and future growth strategies</li> </ul>
Medium- to	<ul> <li>Financial strategies/capital policy/human resource strategies</li> </ul>
Long-term Growth	<ul><li>Business portfolio (establishment of new DSS BU)</li></ul>
Strategies	<ul> <li>Mergers with Group companies</li> </ul>
	<ul> <li>Expansion and reinforcement of development and production facilities in Japan and overseas</li> </ul>
	Business innovation projects
	<ul> <li>Improvement of risk management processes</li> </ul>
	<ul> <li>Legal affairs and compliance/information security</li> </ul>
Risk/Compliance	Procurement risks
	Declarations of Partnership Building
	Reports on sustainability
	<ul> <li>Initiatives for diversity</li> </ul>
	<ul> <li>Reports on investment in human capital and intellectual property activities</li> </ul>
	Reports on internal audits
	Status of investment targets and cross-shareholdings
Governance	Status of IR activities
	Status of the activities of the Nomination Committee and Compensation Committee
	<ul> <li>Status of progress of successor development plan</li> </ul>
	Closed session on evaluation of representative directors

(members of the Board of Directors excluding the

#### Off-site Meetings

In addition to the Board of Directors meetings, off-site meetings have been held on two occasions (September 2022 and March 2023), where medium- and long-term growth strategies, financial strategies, capital policy and human resource strategies have been discussed. In March, members also undertook an observation of the Miyagi Technology Innovation Center and other sites at Tokyo Electron Miyagi, where they developed a deeper understanding of the operations while also engaging in dialogue with employees on-site.



Observation of the Miyagi Technology Innovation Center

#### **Establishment of the Director Compensation System**

#### **Basic Policy on Director Compensation**

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

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

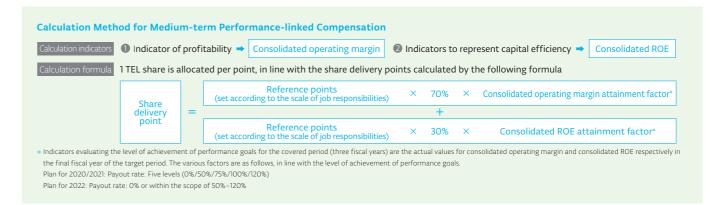
#### **Compensation Structure**

Among corporate directors, compensation for inside directors consists of "fixed basic compensation," "annual performance-linked compensation" and "medium-term performance-linked compensation." Compensation for outside directors consisits of "fixed basic compensation" and "non-performance-linked compensation (stock-based compensation)."

Compensation for Audit & Supervisory Board members consists solely of "fixed basic compensation," in consideration of their role being primarily audit and supervision of management.

The following table sets out an overview of our policies and decision-making methods for each type of compensation.

Type of Compensation		Recipient			
		Inside Directors	Outside Directors	Audit & Supervisory Board Members	Overview of Compensation
Fixed Basic	Compensation	0	0	0	<ul> <li>Monthly compensation is determined within the limit of total fixed basic compensation, which has been resolved at the Shareholders' Meeting</li> <li>For inside directors, amounts are determined according to the scale of job responsibilities by making reference to the job grade frameworks of an external expert organization (Willis Towers Watson)</li> </ul>
Annual Performance- linked Compensation	Cash Bonuses	0	_	_	<ul> <li>Amount to be paid is linked to business performance in each fiscal year, with a view to motivating recipients to contribute to improving the business performance in each fiscal year</li> <li>Consists of cash bonuses and stock compensation-based stock options; the composition is roughly 1:1</li> <li>Specific amounts and the number of stock options granted shall be commensurate with the Company's business performance and the results of individual performance evaluations in the relevant fiscal year (Indicators of the corporate business performance)</li> <li>Net income attributable to owners of parent and consolidated ROE are adopted, while the result of the comparison with the competitors in terms of operating margin and operating margin growth ratio is</li> </ul>
	Stock Compensation- based Stock Options	0	_	_	reflected on the amount of payment (Individual performance evaluation items) Include contribution to short- and medium-term management strategy targets including ESG  Profit-sharing type compensation commensurate with business performance in each fiscal year is paid, therefore no policy is in place for the payout proportion of fixed basic compensation  Stock compensation-based stock options are subject to a three-year exercise restriction period from the granting of rights, designed to motivate recipients to share a shareholder perspective while contributing to increasing corporate value over the medium to long term
Medium-term Performance- linked Compensation	Performance Share (Stock-based Compensation)	0	_	_	Paid to motivate recipients to contribute to medium-term business performance improvement  If the payout rate is 100%, the payment amount is set at around 30% to 100% of the fixed basic compensation, commensurate with the scale of job responsibility  The number of shares delivered is determined depending on the level of achievement of performance goals for the covered period (three fiscal years)  Consolidated operating margin and consolidated ROE are adopted as performance indicators
Non- performance- linked Compensation	Restricted Stock Units (Stock-based Compensation)	_	0	_	The remuneration system is designed to be more consistent with the expected role of giving advice to the management from the perspective for increasing corporate value over the medium- to long-term  Payment amounts is set at around 50% to 60% of the fixed basic compensation to ensure an adequate balance between cash compensation and stock-based compensation  The Company shares shall be delivered after the expiration of the applicable period (three fiscal years)



#### Chapter 3

#### Value Creation by the Value Chain

#### **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 2023

#### Scope of Evaluation

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



#### ■ Evaluation Items

The main evaluation items for evaluating effectiveness are as follows.

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

#### Initiatives for Issues Identified in Evaluations of Effectiveness in the Previous Fiscal Year

- [1] Clarification of roles and decision-making authority between the executive side and the Board of Directors
  - •Introduce a Corporate Officer system, and establish Corporate Officers Meetings
  - Revise the criteria for resolutions of the Board of Directors, and delegate a portion of the matters to be resolved to the Corporate Officers Meeting
  - •Corporate officers attend every meeting of the Board of Directors, and give briefings on the contents of any deliberations at the Corporate Officers Meeting and important matters related to the execution of business operations
- At off-site meetings, conduct a review following the introduction of the Corporate Officer system and confirm the issues to be considered going forward
- [2] Continuous deliberations to realize medium to long term growth and ongoing improvements to corporate value
  - Have the CEO make reports continuously to the Board of

Directors on the medium to long term growth strategies, including the progress of the Medium-term Management Plan

- Hold off-site meetings on two occasions, with discussions of key measures for accomplishing the Medium-term Management Plan and their roadmaps, as well as topics of importance, including strategies such as diversity and other human resources strategies, capital policy, and risk management
- Have BUGMs (Business Unit General Managers) attend the off-site meetings, and exchange opinions with outside directors and outside Audit & Supervisory Board members on the status of operations executed with a view to achieving medium to long term growth strategies
- [3] Have information be shared between members of the Board of Directors, and discretionary committees
  - Have the Nomination Committee report to the Board of Directors regarding the status of its specific activities, including the progress of discussions regarding the succession plan and how to proceed going forward
  - Hold meetings outside of the Board of Directors to exchange information between the Chairman of the Board of Directors and outside directors and outside Audit & Supervisory Board members

#### **Overview of Fiscal 2023 Evaluation Results**

The Company's Board of Directors believes that the Board of Directors is very effectively ensuring that the key roles and obligations of the Board of Directors are being fulfilled, and that the Board, including the Nomination Committee and the Compensation Committee are functioning effectively. The results of the analyses and evaluations performed by the external experts also confirmed that the Company's Board of Directors is functioning effectively, supported by its strengths such as "nonhierarchical, open and natural discussion," "agile execution," and "drive in execution and unity of the management."

On the other hand, based on the analysis and evaluation results of external experts, the Board of Directors shared the intention to further enhance strategic discussions with a view to the future business environment from a longer term perspective as the importance of semiconductors increases.

#### **Future Initiatives**

Aiming to become the top company globally in the medium to long term we will continue to work on each of the following matters to further strengthen the supervisory function of the Board of Directors and the management and execution functions of the executive side and will further enhance its effectiveness by regularly reviewing its progress.

- •The company will systematically set agendas in line with medium to long term strategies and issues for growth, and will enhance discussions from a long term perspective
- The company will enhance the effectiveness of the Corporate Officers Meeting, the highest decision making authority on the executive side
- •The company will conduct an analysis of the decision making of the Board of Directors, clarify the points of deliberation, and enhance opportunities for sharing information with outside directors and outside Audit & Supervisory Board members on occasions other than board meetings and off-site meetings

#### Message from the Chairman of the Board of Directors



Yoshikazu Nunokawa Chairman of the Board of Directors

One year has passed since I was appointed chairman of the Board of Directors as a non-executive director in June 2022.

Even prior to that, Tokyo Electron's Board of Directors was engaged in the pursuit of the Board's effectiveness and strengthening of governance system aimed at ongoing corporate value enhancement. Actually, since over 20 years ago, ahead of the demands of the times, we established discretionary committees, namely the Compensation Committee and Nomination Committee, disclosed the remuneration of each representative director, and so on

As we mark the milestone of our 60th fiscal year, in fiscal 2023, we have a 50:50 ratio of outside (3) to inside (3) directors, creating a highly independent organization of directors. In addition, we have revised our governance system, including the introduction of our own Corporate Officer system, to enable speedier decision making by the management executive body and agile business execution.

The corporate officers, as the highest position in our business execution, take the same viewpoint as the CEO, undertaking execution of Group management. The Board of Directors appropriately

accelerated the delegation of authorities so that the Corporate Officers Meeting, comprised of the corporate officers, is able to function swiftly and flexibly as the highest decision-making body on the executive side. As a result, we have established a system where the Board of Directors is able to better focus on its supervisory function. In addition, the corporate officers attend the Board of Directors, where they not only directly see the various deliberations that take place aimed at enhancement of corporate value, they also take part in the deliberations, and are thereby able to take the knowledge and motivation they gain there directly to the sphere of execution.

In fiscal 2022, Tokyo Electron realized the financial model set out in the Medium-term Management Plan, formulated in May 2019, two years ahead of schedule, and formulated a new Medium-term Management Plan in June 2022. The Board of Directors has checked our progress towards achievement of the financial targets described in the new Medium-term Management Plan (net sales of 3 trillion yen or more, operating margin of 35% or more, and ROE of 30% or more), while also reviewing the progress of many sustainability-related initiatives, such as promotion of net zero and DE&I, and indicators (non-financial targets). Moving forward, the Board of Directors will continue to extensively supervise initiatives aimed at corporate value enhancement over the medium- to long-term.

The open and flat corporate climate that Tokyo Electron has maintained since its founding is the source of our strength. Our Board of Directors will continue to value this positive corporate culture, while also paying close attention to the constantly changing trends in our world. Holding a global perspective, we will strive to undertake open, frank and proactive deliberation with a sense of speed and make the best decisions at the appropriate timing to contribute to corporate value enhancement, tackling important issues, focusing on risk management, as well as further strengthening corporate governance.

#### **Skills Matrix**

We define "Product Competitiveness," "Customer Responsiveness," "Higher Productivity" and "Management Foundation," which supports our overall business activities, as material issues.

We will achieve the medium-term goals in each material issue and realize expanding medium- to long-term profit and

continuous corporate value enhancement through each Corporate Director and Audit & Supervisory Board Member, who have demonstrated their skills in Global Business, Governance, Sustainability, and others listed below as determined by the Nomination Committee and the Board of Directors.

			Expected Skills							
	Name			Corporate Management	Semiconductor Markets	Manufacturing/ Development	Sales/Marketing	Finance, Accounting/ Engagement with Capital Markets	Legal Affairs/ Risk Management	
	Toshiki Kawai	Re- appointed		•	•	•	•			
Corp	Sadao Sasaki	Re- appointed		•	•	•	•			
orate	Yoshikazu Nunokawa	Re- appointed			•	•	•	•		
Corporate Directors	Michio Sasaki	Re- appointed	Outside	•		•	•			
tors	Makiko Eda	Re- appointed	Outside	•	•		•			
	Sachiko Ichikawa	Re- appointed	Outside					•	•	
Audit	Kazushi Tahara	Re- appointed		•	•	•	•			
& Super	Yutaka Nanasawa	Newly appointed			•			•		
visory B	Kyosuke Wagai		Outside					•	•	
Audit & Supervisory Board Members	Masataka Hama		Outside	•				•		
mbers	Ryota Miura		Outside						•	

#### **Definition of Expected Skills**

Corporate Management	Experience of corporate management (experience serving as a representative director or chairman/president)
Semiconductor Markets	Knowledge of semiconductor markets
Manufacturing/Development	Knowledge/experience in manufacturing and development at TEL and other manufacturers
Sales/Marketing	Knowledge/experience in sales and marketing at TEL and other manufacturers
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 of legal affairs, compliance, and risk management

#### **Diversity of Board Members**





#### Directors, Audit & Supervisory Board Members and Corporate Officers (As of July 1, 2023)

#### **Directors**



Toshiki Kawai Representative Director President & CEO Corporate Officer



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



Yoshikazu Nunokawa Corporate Director  $\dot{\text{Chairman}}$  of the Board of Directors



Outside Director Director and Vice President, SHIFT Inc.



Makiko Eda Outside Director Chief Representative Officer, World Economic Forum Japan Outside Director, FUJIFILM Holdings Corporation



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

#### **Audit & Supervisory Board Members**



Kazushi Tahara Audit & Supervisory Board Member

Kyosuke Wagai



Audit & Supervisory Board Member



Masataka Hama Outside Audit & Supervisory Board Member Outside Director, Nissay Asset Management Corporation



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



Outside Audit & Supervisory Board Member

Outside Audit & Supervisory Board Member Mochida Pharmaceutical Co., Ltd.

Representative, Wagai CPA Office

Tatsuya Nagakubo Corporate Officer



Seisu Ikeda Corporate Officer



Yoshinobu Mitano Corporate Officer



Takeshi Okubo Corporate Officer

#### **Interview with Outside Directors**



Makiko Eda Independent Outside Director Compensation Committee Chairperson

# How would you rate corporate governance at Tokyo Electron right now, and what future challenges do you see?

As I understand it, governance means supervising a company's activities to enable ongoing sustainable growth of the company, preservation of the global environment and contributions to human society.

In a rapidly changing and complex external business environment, I am reassured that key risks are being identified at Tokyo Electron, and that risk management is being implemented under the direction of executives with ownership over each of those risks. However, risks are always changing, so it is important to continually hone our responsiveness through constant auditing and reporting while never letting down our guard. Geopolitical risks in particular are out of our control, but because they can potentially impact all other business risks, it is essential that we obtain information and confirm the facts quickly. On this point, I believe that we have enhanced our external relation function and are now seeing results.

As for future challenges, I believe it is important to stay ahead of the times and take an over-arching approach to the very nature of the entire supply chain, procurement, product competitiveness and manufacturing sites as specific challenges related to mediumto long-term business strategy. I am also keenly aware of the need to prepare for future growth and work toward further investment in human resources, investment in research and development, and diversity.

Governance is a journey without end. Therefore, I will continue striving to ensure the company is in a position to contribute to shareholders and all other stakeholders on an ongoing basis.

# As Chairperson of the Compensation Committee, what did the committee achieve over the past year, and what challenges did it face?

Over this year, the Compensation Committee has been reviewing the director compensation system in particular to ensure even greater sustainability. During this process, to achieve the best level of compensation globally, we focused on ensuring that compensation is competitive against global benchmarks, that non-financial factors are better reflected in compensation amounts and that migration from existing systems is smooth and satisfactory to all.

With human resource mobility increasing globally, we can also expect competition for talent, so it is essential that compensation systems be designed to be competitive. Therefore, it is essential that the Compensation Committee also continue to assess our system to ensure it functions effectively and is competitive. I want to create an environment where substantive discussion on our compensation system can be opened up even further.

#### Michio Sasaki Independent Outside Director Nomination Committee Chairperson,

Compensation Committee Member



## How would you rate corporate governance at Tokyo Electron right now, and what future challenges do you see?

The company as a whole takes a proactive stance toward governance, and I think this has led to strong performance and employee pride.

While the basic approach is to carefully explain the CEO's message again and again through employee meetings and other channels to ensure management objectives are instilled in employees, few companies put this into practice at the level that we do at Tokyo Electron.

In respect to non-financial objectives, we clearly define quantitative targets for them, and for decarbonization in particular, we have announced those numerical targets and timeframes as we establish initiatives to achieve them. For us, it is extremely important that we link these initiatives directly to solutions for social issues through our businesses.

One challenge going forward is to use scenario analysis and other methods to predict dramatic changes in the business environment as early as possible, and convert them into business opportunities rather than missing them. In terms of risks, initiatives related to information security risks are the most important, so we must constantly work hard to implement measures on an ongoing basis.

# From the perspective of someone who has led a manufacturing company, what do you see as the strengths and challenges of Tokyo Electron?

At Tokyo Electron, our company objectives are clear; they are shared with all employees and everyone is aligned in the same direction, which fosters a competitive corporate culture with a high level of participation in management. The performance-linked compensation system also enables the accomplishment of objectives to be reflected in individual evaluations, which had led to a low turnover among employees. Such a corporate culture is an intangible asset that cannot be readily copied by other companies. I consider this to be one of our strengths, and a source of our competitiveness.

We continue to maintain a high level of investment in research and development, but most important is how much this development actually contributes to sales. I would like to look further into the adequacy of R&D expenses with this in mind. To enhance our development capabilities to a level that overwhelms our competitors, we need to create mechanisms for even faster development with a focus on enhancing our planning and frontline capabilities.

Although product supplies were unaffected by the pandemic, we also need to further strengthen our supply chains through such things as commonization of parts through collaboration across our plants.

Backcasting from our medium- to long-term vision for Tokyo Electron in the future, we need to clarify what actions are required to achieve that goal going forward.

#### **Activities of the Compensation Committee**

#### Role of the Compensation Committee

- Establish a Compensation Committee comprised of three or more directors, including outside directors but excluding the representative directors, to secure transparency and fairness in management and appropriateness of compensation
- Have an external expert attend every meeting of the Compensation Committee, utilize advice from the external expert, compare wage levels with companies in Japan and abroad, analyze the latest trends in Japan and abroad and best practices such as reflecting ESG indicators in compensation and propose to the Board of Directors a compensation system, that is most appropriate for the Group in light of the Company's basic policies on compensation, and individual compensation amounts for the representative directors

#### Activities of the Compensation Committee in Fiscal 2023

- Discussed the compensation system and process
- Determined the medium-term performance-linked compensation plan for 2022
- Determined the mission and individual evaluation for the representative directors
- Determined the fixed basic compensation and annual performance-linked compensation for the representative directors
- Confirmed the compensation determination process for inside directors, etc.
- Determined disclosures related to the director compensation system and agenda items for the Shareholders' Meeting

#### Process for Determining Annual Performance-linke Compensation for the Representative Directors

#### Setting the Mission (Evaluation Items)

Set the mission after deliberations by the Compensation Committee as well as deliberations by the members of the Board of Directors excluding the representative directors (in a closed session)

#### **Performance Evaluation**

After deliberations by the Compensation Committee, evaluated by the members of the Board of Directors excluding the representative directors (in a closed session)

Determination of the Amount of Compensation
Determined by resolution of the Board of Directors upon
proposal of the amount to be paid by the Compensation
Committee to the Board of Directors



Sachiko Ichikawa Independent Outside Director Nomination Committee Member

# How would you rate corporate governance at Tokyo Electron right now, and what future challenges do you see?

Having introduced a Corporate Officer System in June 2022, our corporate officers attend meetings of the Board of Directors as a bridge between the executive and the Board. As a result, outside directors and outside Audit & Supervisory Board members make comments from their market-aware shareholder perspective, and corporate officers actively seek to take them on board for use in execution of their duties. My impression is that such positive energy can be felt at the Board of Directors meetings.

The executive seeks to elicit meaningful comments and advice from the outside directors and outside Audit & Supervisory Board members, who in turn attempt to provide high-level comments utilizing their own skills and experience. Such a positive spiral is bringing about changes to the agenda and discussions of the Board of Directors. For example, more in-depth discussion on capital

policy is occurring from the perspective of how it is viewed from the eyes of shareholders and other stakeholders.

In this way, the specialized monitoring structure of the Board of Directors itself has become clear, and the company's corporate governance is steadily evolving. However, as we evolve, the difficulty of our challenges also inevitability increase, and we have to rise above each of them through a non-stop, ever-improving spiral.

# How would you rate our sustainability initiatives over this past year?

Because of the nature of our businesses, we are positioned to feel the impacts of the sustainability management trend directly. ESG, for instance, is both a risk and an opportunity to us.

Starting with "Environment," reducing the lifecycle CO<sub>2</sub> emissions of semiconductors and semiconductor production equipment is a major issue that requires us to reduce our environmental impacts through such things as more advanced technologies. In terms of "Social," from the perspective of gender diversity, there is an urgent need to increase the number of female science students, from a low base globally, and boost innovation. And for "Governance," we have to strengthen company-wide initiatives related to the issues of geopolitical risk and economic security, which both impact our businesses considerably.

At Tokyo Electron, we understand the risks and opportunities associated with such topics, and we are implementing appropriate initiatives. In terms of achieving our objectives, it is important that we create more granular KPIs, set milestones and explain them to our stakeholders. We also need to perform our supervisory function in the Board of Directors

#### **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 the 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 are 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 1 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 continuity, and classifies those with high impact and probability as our material risks.

In addition, we strive to improve the effectiveness of risk management through measures such as regular education and training programs for management and employees to raise Groupwide risk awareness, formulating and monitoring the implementation of measures to reduce material risks, and reinforcing the PDCA cycle through 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 this procedure and also report periodically to the Board of Directors.

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

Starting in fiscal 2023, we are promoting further DX in our risk management activities by introducing GRC tools<sup>2</sup> that utilize digital technology. It is now possible to visualize the assessment of and countermeasures against risks across the entire Group, as well as to synchronize the information among risk owners and departments in charge of each risk on a global and cross-sectional basis through the use of these tools

To continue practicing autonomous and highly effective risk management, we will develop group-wide activities for each risk owner to further strengthen risk management for the 12 risk items that we have defined.

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

#### **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 known and unknown risks that may surround the company in the future and examining mitigation measures. In fiscal 2023, the 12 risks identified to date were reviewed and reevaluated from the perspective of their potential to have a significant impact on our operating results, financial condition and cash flow. We then pushed forward risk management initiatives for each identified risk even further

12 F	Risks		
	ltem	Main Potential Risks	Main Risk Management Initiatives
1	Market Fluctuations	A rapid contraction of the semiconductor market could lead to overproduction or an increase in dead inventory     A sharp increase in demand could lead to an inability to supply customers with products in a timely manner, resulting in lost opportunities	<ul> <li>Periodically review market conditions and orders received at the Board of Directors and other important meetings, and appropriately adjust capital investments, personnel/inventory planning and other aspects of business</li> <li>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</li> </ul>
2	Research and Development	Delays in the launch of new products or the mismatch of such products with customer needs could lead to a decline in the competitiveness of products	Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division     Provide highly competitive next-generation products ahead of competitors by collaborating with research institutions and sharing a technology roadmap spanning multiple generations with leading-edge customers
3	Geopolitics	Geopolitical tensions could undermine the international order and global macroeconomic conditions, affecting national and regional security, foreign, industrial or environmental policy. This could in turn lead to supply chain disruptions or deterioration of the macroeconomic environment, restricting the Company's ability to operate business	Carefully monitor the international situation as well as the diplomatic and security measures and industrial policy trends in each country and region Anticipate the impact of macroeconomic fluctuations and regulations related to product imports/exports or technological development on the Company's business and consider countermeasures in advance
4	Procurement, Production and Supply	Interruptions in the Company's production due to a natural disaster or delays in component procurement due to deterioration in the business conditions of a supplier or an increase in demand that exceeds the supplier's supply capacity could lead to delays in the supply of products to customers	Formulate BCP, develop alternate production capabilities, promote the seismic reinforcement of plants, level production, enhance the backup capabilities for information systems, use multiple sources of important parts, and maintain appropriate inventory levels     Share forecasts based on demand projections for semiconductors with suppliers and build a system for the stable supply of products
5	Safety	Safety problems with the Company's products or serious accidents resulting in workplace injuries could lead to damage to customers, liability for damages and a decline in public trust and confidence in the Company's safety initiatives	Based on the "Safety First" approach, implement inherently safe design with an awareness of risk reduction at the product development stage     Implement company-wide efforts such as promoting safety education tailored to each employee's job and developing an incident reporting system
6	Quality	The occurrence of a product defect could lead to liability for damages, costs for countermeasures and a decline in the Group's brand and credibility	Promote continuous education on quality to employees and suppliers to establish a quality assurance system and a world-class service system  Resolve technical issues from the product development and design stage Thoroughly investigate the cause of any defects and implement measures to prevent the same or similar defects from occurring  Monitor the quality status of suppliers, conduct audits and provide support for improvement
7	Environmental Issues	The inability to respond appropriately to each country's climate change policies, environmental laws and regulations, and customer needs could lead to additional related costs such as for developing new products or changing specifications, as well as to reduced product competitiveness and diminished public confidence in the Company	To achieve medium- to long-term environmental goals that include the net zero target, implement measures such as reducing greenhouse gas emissions from the use of our products, increasing the rate of renewable energy usage at plants and offices, reducing overall power consumption, reviewing packaging materials, and promoting a modal shift  Provide technologies, etc., that contribute to higher performance and energy efficiency of semiconductor devices through implementation of our E-COMPASS initiative
8	Laws and Regulations	Violations of the laws and regulations of the countries and regions where the Company operates could lead to diminished public confidence in the Company, fines, liability for damages or restrictions on business activities	Monitor compliance activities at key sites in and outside Japan under the direction of the Chief Compliance Officer     Have assessments conducted by external experts and report identified issues to the CEO, the Board of Directors and the Audit & Supervisory Board for swift and effective action
9	Intellectual Property Rights	The inability to obtain exclusive rights to proprietary technologies could lead to reduced product competitiveness Infringement of the intellectual property rights of third parties could lead to restrictions on the production and sale of products as well as liability for damages	Advance the intellectual property strategy, business strategy and R&D strategy in an integrated manner to build an appropriate intellectual property portfolio     Reduce the risk of infringement of other companies' patents by continuously monitoring other companies' patents and establishing a system to take appropriate measures in cooperation with the business and R&D departments
10	Information Security	Breaches of information or the suspension of services due to unauthorized access by cyberattack against the Company or suppliers, natural disasters or other factors could lead to diminished public confidence in the Company or liability for damages	Launch a dedicated security organization and establish an information security system that conforms to international standards by having security assessments conducted by external experts, etc.     Establish globally standardized rules and regulations for information management and implement response guidelines
11	Human Resources	The inability to recruit and retain necessary human resources on an ongoing basis or the inability to create an environment where people with diverse values and expertise can play an active role could lead to diminished product development capability or customer support quality	Make continuous improvements to work environments and promote diverse work styles as well as health and productivity management (e.g., sharing our visions by management, establishing training plans for human resource who will lead the future, visualizing career paths for employees and offering attractive remuneration and benefits)
12	Other Risks Such as Infectious Diseases and Natural Disasters	The global and regional political landscape, economic environment, financial and stock markets, foreign exchange fluctuations, infectious diseases and natural disasters such as earthquakes, windstorms and floods, among other factors, could cause the Company's business activities to stagnate and the global economy to deteriorate	Take appropriate measures against such risks In case of a potential impact on the continuation of the business, establish an Emergency Task Force headed by the CEO and implement measures to minimize the impact

#### **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 DX and other

measures. We are working with our suppliers to promote ongoing measures to protect the entire supply chain from the risk of cyberattacks that could target the entire Group.

#### Main Activities



#### Information Security Systems

The Vice President and General Manager, Information Security, run the Information 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 regularly verify and revise our global information security regulations, and conduct information security education twice a year and phishing email training every month for all executives and employees. We also hold seminars for management twice a year to share the latest situation on information security, including cyber security. In addition, we implement risk assessments and internal audits for each department of the entire Group, evaluate risks and undertake improvement activities for technological, human, organizational and physical security measures.



#### **Responses to Security Threats**

We have proactively introduced advanced technology and established a dedicated security organization, and are operating a robust monitoring system, to respond to security threats such as cyberattacks (including ransomware) and information leaks.



#### Security at Manufacturing Sites and in Products

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<sup>1</sup>. We are also working to ensure information security in our products as one of our services and as part of the quality that is required to meet our customers' expectations.



#### **Supply Chain Security**

We respond to customer requests for security and work with our suppliers to visualize, evaluate and improve their security situations, 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, and have structures in place that aim to respond to issues and recover systems swiftly. We also carry out incident response training for the entire Company, including management, and confirm pre-determined procedures to ensure that impacts on operations and on customers will be minimized even in the event of operations being disrupted by an incident. We also implement a penetration test<sup>2</sup> for systems-related aspects twice a year and are developing improvement activities on an ongoing basis.

QCD: Quality, Cost, Delivery 2 Penetration test: A test method for verifying vulnerabilities in networks, PCs, servers and systems.

#### **Engagement with Capital Markets**

Our management actively engages in IR (Investor Relations) and SR (Shareholder Relations) activities to contribute to our sustainable growth and increase corporate value over the medium to long term. In terms of IR activities, the CEO and each company's executive appear at quarterly financial announcement and Medium-term Management Plan briefings to share our business strategies and growth story. We have also established the IR Department under the direct control of the CEO to enable deeper discussions with our investors. As a part of our SR activities, company executives play a central role in constructive dialogue with our major investors and proxy advisory firms. In addition to explaining the Shareholders' Meeting agenda in advance, we engage in repeated dialogue throughout the year on a wide range of topics including corporate governance, our policies about sustainability-related initiatives, the environment, human rights, and diversity and deepen mutual understanding. Opinions gathered from dialogues with investors are regularly reported to management and the Board of Directors.

#### Main Activities

Engagement with Capital Markets	IR Activities	• Individual meetings for institutional investors: 624 times*; overseas IR road shows: 3 times*			
	Financial Announcement	<ul> <li>Broadcasting using simultaneous interpretation and subtitles</li> </ul>			
Provision of Information	Medium-term Management Plan Announcements	Broadcasting of archives from announcements/ conferences within one business day; disclosure of Q&A within two business days			
	Shareholders' Meeting	Posting of convocation notices on the website and dispatch of convocation notices at an early stage			
Disclosure		Consolidated Financial Statements, Integrated Report, Fact Book (each once per year)			
of Materials	IR-related	Quarterly Report, Earnings Release, Financial Announcement Materials, Corporate Update (each 4 times/year)			

#### \* Fiscal 2023

#### **Evaluation from Third-party Institutions**

Our sustainability initiatives have allowed us to continue to be selected as a constituent stock under leading global ESG indices, including the Dow Jones Sustainability™ Asia/Pacific Index, FTSE4Good Index Series, MSCI ESG Leaders Indexes¹, Euronext Vigeo World 120 Index and STOXX Global ESG Leaders indices. In fiscal 2023, we were selected under the Bloomberg Gender-Equality Index (GEI) and evaluated as a low-risk company in Sustainalytics' ESG Risk Ratings², as well as being selected for the first time as an "All-Star" under the 2023 All-Japan Executive Team announced by Institutional Investor.

Additionally, we received the Porter Prize, which recognizes companies and enterprises that implement unique and outstanding strategies in Japan.

Furthermore, we received recognition as one of the top 500 companies under the 2023 Certified Health & Productivity

Management Outstanding Organizations Recognition Program<sup>3</sup> for the 5th consecutive year, while the Tokyo Electron Integrated Report 2022 was selected again as an "Excellent Integrated Report" by the Government Pension Investment Fund (GPIF)'s external asset managers entrusted with domestic equity investment, continuing from the previous year.

- Refer to the "Third-party recognition" on our website for the logo's disclaimer: www.tel.com/sustainability/review.html
- 2 Copyright ©2023 Sustainalytics. All rights reserved. This article contains information developed by Sustainalytics (www.sustainalytics.com). Such information and data are proprietary of Sustainalytics and/or its third party suppliers (Third Party Data) and are provided for informational purposes only. They do not constitute an endorsement of any product or project, nor an investment advice and are not warranted to be complete, timely, accurate or suitable for a particular purpose. Their use is subject to conditions available at https://www.sustainalytics.com/legal-disclaimers.
- 3 Our Group companies in Japan have been certified under this program since 2019.





















#### **Participation in Global Initiatives**

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



The United Nations Global Compact (UNGC) is a global initiative that promotes sustainability, proposed by former UN Secretary-General Kofi Annan at the 1999 World Economic Forum. We signed onto the UNGC in 2013 and are working to contribute to the realization of sound globalization and a sustainable society in accordance with its Ten Principles in the areas of Human Rights, Labor, Environment and Anti-Corruption.



The Responsible Business Alliance (RBA) is a global initiative promoting supply chain sustainability focused on the electronics industry. We joined the RBA in 2015, and as a member company, we work together with suppliers to ensure compliance with the RBA Code of Conduct comprised of five sections: Labor, Environment, Health and Safety, Ethics and Management Systems.

RBA audits are carried out mainly at major manufacturing sites in Japan and overseas, and we implement any necessary corrective actions.



In 2020, we expressed our approval of the recommendations offered by the Task Force on Climate-related Financial Disclosures (TCFD)\*. We are conducting ongoing disclosures and discussions based on the framework of governance, strategy, risk management, metrics and targets relating to the risks and opportunities that climate change presents to our overall business.

\* Refer to Initiatives Related to Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) on p. 54

#### Chapter 4

#### **Toward Further Growth**

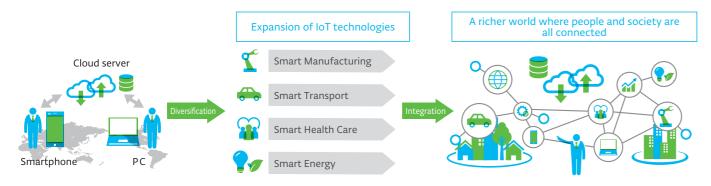
# Medium- to Long-term Outlook

In order to build a strong and resilient society in which economic activities do not stop under any circumstances, the world will continue to push firmly ahead with implementing ICT (Information and Communication Technology), and computer technology supporting this technology is also expected to continue to develop further. The evolution and practical application of innovative technologies are expected to realize a sustainable world in which people and society are connected in every aspect. Under these circumstances, semiconductors are expected to become even more important as social infrastructure, and the semiconductor market will evolve in more diverse ways as technological demands for larger capacity, higher speed, and lower power consumption increase. In the semiconductor production equipment business, it is essential to provide new value through manufacturing methods that realize ultra-efficient productivity and reduced environmental impact along with the best solutions. At the same time, it is important to ensure that we achieve net zero greenhouse gas emissions by 2050, and to invest in human capital continuously and aggressively. Through the realization of our Vision, which specifies our medium-to long-term business aspirations and the direction of our near future, and through the practice of our Corporate Philosophy, which defines the purpose of our existence and mission in society, we will meet the expectations of all of our stakeholders.

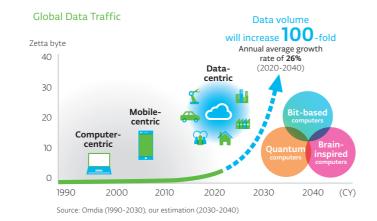
#### **Evolution of Technology**

In recent years, the expansion of smartphones, tablets and cloud servers has led to rapid digitization in society as a whole. Along with the spread of 5G/6G and the evolution of IoT and AI technology, a variety of services and solutions are being created that make advanced use of huge amounts of data, such as the shift to EVs for automobiles and autonomous driving, the development

of smart cities and smarter industries in the plant, agricultural, medical and energy sectors. These are expected to make our lives more convenient and contribute to solving various problems that society faces, such as environmental and population issues. It is expected that the evolution of technology will connect people and society in all aspects and realize a sustainable world.



Along with the evolution of technology, the computer technology that handles information processing also continues to develop further. In addition to conventional bit-based computers such as PCs and data servers that perform mathematical processing, innovative technologies such as quantum computers and brain-inspired computers that copy the movements of the human brain are expected to emerge going forward. As these technologies spread throughout society, data traffic will increase dramatically, and it is predicted that by 2040 it will be 100 times the 2020 level. A sudden increase in power consumption due to computing is expected due to the processing of huge amounts of data, and there is a need for new technologies that achieve both improved performance and lower power consumption.

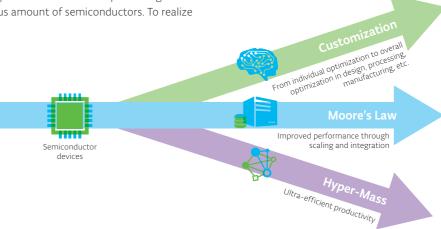


#### The Future of Semiconductors

The semiconductor market that supports computer technology is expected to evolve in more diverse ways in the future. The performance of semiconductors has been improved through scaling and integration, but the demand for further performance improvement to realize computer technology that can process large amounts of data at higher speed and with lower power consumption is increasing (Moore's Law). In addition, with the diversification of applications and services, it is necessary to optimize semiconductor design, manufacturing technology and the entire system according to the application (Customization). Furthermore, larger capacity data traffic and their processing and analysis require an enormous amount of semiconductors. To realize

a world in which everyone can enjoy the benefits of computer technology, it is necessary to reduce the cost of semiconductors through economies of scale (Hyper-Mass).

For semiconductor production equipment manufacturers, the key to value creation in the future will be to solve the technological and cost challenges of scaling and integration, to quickly propose the best solutions to meet the diverse needs of semiconductor manufacturing customers and to provide manufacturing methods that achieve extremely high productivity and optimize environmental impact.



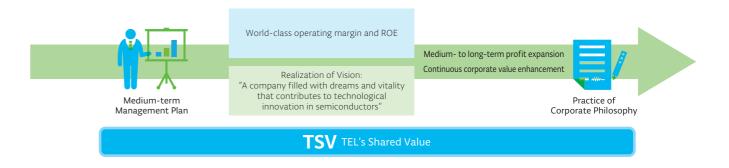
#### Toward the Realization of a Sustainable Society

Based on the concept of TSV (TEL's Shared Value), which is to solve social issues through our business activities, we are committed to providing further value through the continuous creation of innovative technologies. In June 2022, we established a new Vision and Medium-term Management Plan, and set key financial and sustainability indicators, and are promoting initiatives to achieve them.

In addition to our medium-term environmental goals, we have declared our long-term goal of achieving net zero greenhouse gas (GHG) emissions by 2050. While reducing our own emissions, including increasing to a rate of 100% renewable energy usage at all of our plants and offices, we will work with our customers and suppliers to develop technologies to improve the energy efficiency of our products, including energy-saving equipment and ancillary facilities and developing processes that use GHG alternative gases.

Furthermore, based on the idea that "our corporate growth is enabled by people, and our employees both create and fulfill company values," we will continue to actively invest in human capital. By striving to build mutual trust between the organization and employees and maintaining high levels of engagement, we will realize our Vision of "A company filled with dreams and vitality that contributes to technological innovation in semiconductors."

We will utilize our expertise as semiconductor production equipment manufacturers and all of our management resources for medium- to long-term profit expansion and continuous corporate value enhancement, and put into practice our Corporate Philosophy of "We strive to contribute to the development of a dream-inspiring society through our leading-edge technologies and reliable service and support."



## Financial Review

#### **Operating Results**

The global economy during fiscal 2023 slowed due to persistent inflation of raw material, energy, and various goods in conjunction with heightened geopolitical risks, interest rate hikes, and rapid exchange rate fluctuations mainly in Europe and the United States. The Company continues to closely monitor the impact of these global economic and geopolitical headwinds and the impact on the supply chain.

On the other hand, in the electronics industry, where the TEL operates, the role of semiconductors that support electronic devices and their technology innovations are becoming more and more important, against the backdrop of the transition to a data society accompanying the expansion of information and communication technology and efforts to create a decarbonized society. With its increased importance, the semiconductor production equipment market has become the largest ever.

In this environment, the consolidated business results for the fiscal year under review are as follows.

Net sales for the fiscal year increased 10.2% from the previous fiscal year to 2,209.0 billion yen. Domestic net sales increased 4.2% from the previous fiscal year to 239.9 billion yen, while overseas net sales increased 11.0% to 1,969.0 billion yen to account for 89.1% of net sales.

Cost of sales increased 12.1% to 1,224.6 billion yen and gross profit increased 8.0% to 984.4 billion yen. As a result, the gross profit margin decreased 0.9 points to 44.6%.

Selling, general and administrative (SG&A) expenses increased 17.3% to 366.6 billion yen, while the ratio to consolidated net sales increased 1.0 points to 16.6%.

As a result, operating income increased 3.1% to 617.7 billion yen and operating profit margin decreased 1.9 points to 28.0%.

Income before income taxes was 624.8 billion yen (year-on-

year growth of 4.7%) and net income attributable to owners of parent was 471.5 billion yen (year-on-year growth of 7.9%).

As a result, net income per share was 1,007.82 yen compared to net income per share of 935.95 yen in the previous fiscal year.

#### **Financial Conditions**

Current assets at the end of fiscal 2023 were 1,740.9 billion yen, an increase of 332.2 billion yen compared to the end of the previous fiscal year. This was mainly due to an increase of 198.8 billion yen in cash and deposits, an increase of 178.3 billion yen in inventories.

Tangible fixed assets increased by 36.0 billion yen from the end of the previous fiscal year, to 259.0 billion yen.

Investments and other assets increased by 48.8 billion yen from the end of the previous fiscal year, to 311.5 billion yen.

As a result, total assets increased by 417.1 billion yen from the end of the previous fiscal year, to 2,311.5 billion yen.

Current liabilities increased by 161.3 billion yen from the end of the previous fiscal year, to 629.8 billion yen. This was largely due to an increase of 186.6 billion yen in customer advances, and a decrease of 36.0 billion yen in income taxes payable.

Long-term liabilities increased by 3.3 billion yen from the end of the previous fiscal year, to 82.1 billion yen.

Net assets increased by 252.4 billion yen from the end of the previous fiscal year, to 1,599.5 billion yen. This was largely due to an increase of 471.5 billion yen resulting from recording net income attributable to owners of parent, a decrease resulting from the payment of 252.9 billion yen in year-end dividends for the previous fiscal year and interim dividends for the current fiscal year, and an increase of 13.9 billion yen in net unrealized gains on investment securities. As a result, the equity ratio was 68.7%.

#### **Cash Flows**

Cash and cash equivalents at the end of fiscal 2023 increased by 136.8 billion yen compared to the end of the previous fiscal year, to 472.4 billion yen. The combined balance including 0.6 billion yen in time deposits and short-term investments with maturities of more than three months that are not included in cash and cash equivalents was 473.1 billion yen, an increase of 101.8 billion yen from the end of the previous fiscal year. The overall situation regarding cash flows for the fiscal year was as described below.

Cash flows from operating activities were positive 426.2 billion yen, an increase of 142.8 billion yen compared to the end of the previous fiscal year. The major positive factors were 624.8 billion yen in income before income taxes, and a 185.6 billion yen increase in customer advances. The major negative factors were 209.1 billion yen in payment of income taxes, and a 173.4 billion yen increase in inventories.

Cash flows from investing activities were negative 41.7 billion yen compared to negative 55.6 billion yen in the same period of the previous fiscal year. This was largely due to the payment of 66.8 billion yen for the purchase of tangible fixed assets.

Cash flows from financing activities were negative 256.5 billion yen compared to negative 167.2 billion yen in the same period of the previous fiscal year. This was largely due to the payment of 252.9 billion yen in dividends.

#### **Production, Orders and Sales Results**

We conduct production activities while flexibly responding to market changes. As our production trends are similar to those of our sales, we omit description of these results. We also do not indicate order results because they are not necessarily an appropriate indicator for projecting medium-to long-term corporate performance, with short-term orders tending to fluctuate significantly according to customers' investment trends.

Sales results by major customer and their ratio to total sales results are as shown below.

#### Fiscal 2022 (Fiscal year ended March 31, 2022)

Name of customer	Sales (Millions of yen)	Ratio (%)
Samsung Electronics Co., Ltd.	312,279	15.6
Intel Corporation	303,982	15.2
Taiwan Semiconductor Manufacturing Company Ltd.	231,393	11.5

#### Fiscal 2023 (Fiscal year ended March 31, 2023)

Name of customer	Sales (Millions of yen)	Ratio (%)
Intel Corporation	357,636	16.2
Taiwan Semiconductor Manufacturing Company Ltd.	320,427	14.5
Samsung Electronics Co., Ltd.	275,916	12.5

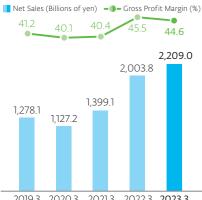
Note: The amounts include sales to the customer and its subsidiaries

#### **Financial Conditions**

Financial Conditions	(Million:					
	2019.3	2020.3	2021.3	2022.3	2023.3	
Total current assets	¥982,897	¥962,484	¥1,015,696	¥1,408,703	¥1,740,959	
Net property, plant and equipment	150,069	175,580	196,967	223,078	259,088	
Total investments and other assets	124,661	140,431	212,699	262,676	311,545	
Total assets	1,257,627	1,278,495	1,425,364	1,894,457	2,311,594	
Total current liabilities	304,882	382,578	327,661	468,578	629,893	
Total liabilities	369,510	448,802	400,801	547,408	712,069	
Total net assets	888,117	829,692	1,024,562	1,347,048	1,599,524	

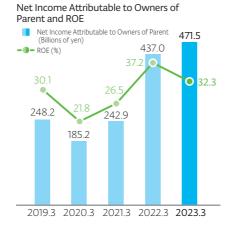
Net Sales and Gross Profit Margin

Net Sales (Rillions of yen) - - - Gross Profit Marg









Cash Flows (Millions of year

	2019.3	2020.3	2021.3	2022.3	2023.3
Cash flows from operating activities	¥189,572	¥253,117	¥145,888	¥283,387	¥426,270
Cash flows from investing activities	(84,033)	15,951	(18,274)	(55,632)	(41,756)
Cash flows from financing activities	(129,761)	(250,374)	(114,525)	(167,256)	(256,534)
Cash and cash equivalents at end of year	232,634	247,959	265,993	335,648	472,471

# Management Discussion and Analysis of State of Operating Results

Regarding our operating results for fiscal 2023, despite the rapid tightening of supply and demand for electronic devices in the first half to the middle of the fiscal year having run its course, customers continued to actively invest in the semiconductor production equipment market, resulting in consolidated net sales of 2,209.0 billion yen, an increase of 10.2% from the previous year, and an operating income of 617.7 billion yen, an increase of 3.1% from the previous fiscal year, a record-high for the third consecutive year at the end of this period.

The operating margin was 28.0%, a decrease of 1.9 points from the previous fiscal year, but this was mainly due to temporary impacts such as soaring component prices and inflation, as well as a record-high R&D investment. Regarding temporary factors, we will optimize prices by introducing products with high added value, which will lead to future growth.

Total R&D expenses increased by 32.9 billion yen (year-on-year growth of 20.8%) from the previous fiscal year to a record-high of 191.1 billion yen in order to achieve the financial model of the Medium-term Management Plan announced on the current fiscal year as well as to achieve further growth in the future.

Net income attributable to owners of parent—which is operating income with other income and expenses reflected less tax expenses—was 471.5 billion yen, and its ratio against net sales was 21.3%, a decrease of 0.5 points from the previous fiscal year. Net income per share was 1,007.82 yen due to the increase in profits resulting from the increase in net sales, as mentioned above.

With regard to objective indicators to assess the achievement status of management policy, management strategy and management goals, the Group uses net sales, operating margin and return on equity (ROE) as indicators for the financial model of the Medium-term Management Plan.

The following is our understanding, analysis and consideration about the state of operating results for each segment. Please note that segment profit corresponds to income before income taxes on the consolidated statements of income.

#### Semiconductor Production Equipment

Capital investment in semiconductors for logic/foundry has been made in a wide range of areas, from cutting-edge to mature generations of semiconductors, driven by the digitalization of society. Capital investment in memory was revised starting in the second half of the fiscal year due to inventory adjustments but remained at a high level throughout the fiscal year. Consequently, net sales to customers in this segment during FY2023 were 2,155.2 billion yen an increase of 10.9% from previous fiscal year. Segment profit was 696.3 billion yen, an increase of 4.3% from the previous fiscal year.

As described as the business environment, customers have been actively investing in new equipment against a backdrop of growing demand for semiconductors, and our sales strategies in the key fields have progressed steadily. As a result, net sales in fiscal 2023 increased significantly, especially for logic/foundry and DRAM. In addition, net sales of used equipment and modifications as well as parts and services also grew steadily due to an increase in the cumulative number of equipment installations and high equipment utilization by customers.

The segment profit margin for fiscal 2023 was 32.3%, down 2.0 points from 34.3% in the previous fiscal year. Segment sales increased, but this was mainly due to a rise in the ratio of fixed costs as a result of the rising cost of sales due to global inflation and increased R&D expenses in anticipation of medium- to long-term growth.

#### **FPD Production Equipment**

As capital investment for large-sized LCD panels for televisions has run its course, the overall manufacturing equipment market for FPD TFT arrays has slowed. Meanwhile, capital investments in small and medium-sized OLED panels continue in conjunction with displays installed in end products being converted from LCD panels to OLED panels. Consequently, net sales to external customers in this segment during the fiscal year under review were 53.6 billion yen (year-on-year decrease of 10.3%).

Segment profit was 1.0 billion yen, a decrease of 72.6% from

the previous fiscal year. With fiscal 2023 being a transition period to shift from LCD to OLED, capital investment was adjusted for FPD production equipment. Consequently, net sales in this segment decreased.

The segment profit margin for fiscal 2023 was 2.0%, down 4.5 points from 6.5% in the previous fiscal year. This was mainly due to a decrease in sales of new equipment in fiscal 2023 amid customers' adjustments to their investment for FPD production equipment.

#### Management Discussion and Analysis of State of Financial Conditions and Cash Flows, and Information Related to Sources of Capital and Fluidity of Funds

Regarding our financial conditions, total assets stood at 2,311.5 billion yen at the end of fiscal 2023, an increase of 417.1 billion yen from the end of the previous fiscal year. This was mainly due to the increase in cash and cash equivalents inventories, property, tangible fixed asset, and investment securities included in investments and other assets.

Cash and cash equivalents reached 472.4 billion yen, an increase of 136.8 billion yen from the end of the previous fiscal year due to an increase in net income attributable to owners of the parent company, backed by favorable semiconductor production equipment market conditions.

Inventories reached 652.2 billion yen, an increase of 178.3 billion yen from the end of the previous fiscal year, in reflection of the robust demand for equipment and spare parts— which will continue into the following fiscal year—as well as a result of incorporating measures such as leveling of production.

Tangible fixed assets reached 259.0 billion yen, an increase of 36.0 billion yen from the end of the previous fiscal year. The increase mainly reflects the acquisition of equipment and metrology tools necessary for R&D of leading-edge technology and the establishment and recovery of various business sites to strengthen operations in Japan, Korea, and Taiwan, as well as a new

development building under construction in Nirasaki City, Yamanashi Prefecture. Investment securities increased 20.5 billion yen year-on-year to 165.5 billion yen due to the higher market prices of strategically-held listed shares. Due to these factors, total assets increased since the end of the previous fiscal year, the turnover period for total assets\* increased from 301 days in the previous fiscal year to 347 days.

Regarding cash flows, the balance of cash and cash equivalents including deposits and short-term investments with original maturities of more than three months increased 101.8 billion yen year-on-year to 473.1 billion yen.

As mentioned above, this was largely attributable to favorable performance in fiscal 2023, which continued from the previous fiscal year.

In fiscal 2023, together with the incorporation of measures such as business expansion and leveling of production, the level of inventories continued to rise, and necessary working capital increased. Against this background, we continued growth investments, such as investment in R&D to create innovative technologies with high added value that meet growing technological demands and differentiate us from competitors, and collaboration with suppliers in consideration of production technology innovations and reduction of environmental impact. At the same time, we returned 252.9 billion yen to our shareholders based on our shareholder return policy of a 50% dividend payout ratio. These were all covered using cash on hand obtained through business operations. We will continue to maintain a solid financial foundation built up by a high profit margin, and at the same time, undertake growth investments for the future and proactive efforts to return profits to shareholders.

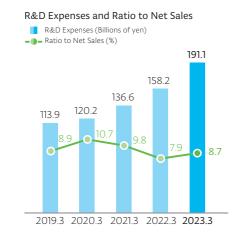
Return on equity (ROE), one of our management indicators, was 32.3%.

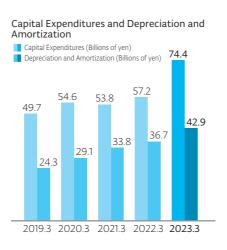
\* Turnover period for total assets = Average total assets / Net sales × 365

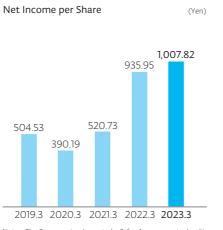
For the details of financial data, please refer to the "Consolidated Financial Statements" on the Company's website. www.tel.com/ir/library/consolidated-financial-statements/

# Ratio to Net Sales Selling, General and Administrative Expenses (Billions of yen) Ratio to Net Sales (%) 312.5 244.2 215.6 16.9 19.1 17.5 15.6 16.6

Selling, General and Administrative Expenses and







Notes: The Company implemented a 3-for-1 common stock split on April 1, 2023. Net income per share is calculated on the assumption that stock split was implemented at the beginning of fiscal 2019.



Notes: Segment profit corresponds to income before income taxes on the consolidate statements of income.



Notes: Segment profit corresponds to income before income taxes on the consolidate statements of income.

# Consolidated Five-year Summary

Tokyo Electron Limited and Subsidiaries From fiscal 2019 to fiscal 2023	(Thousands of U.S. dollars					(Millions of yen)
	2023.3	2023.3	2022.3 <sup>4</sup>	2021.3	2020.3	2019.3 <sup>3</sup>
Net sales	\$16,543,289	¥ 2,209,025	¥ 2,003,805	¥1,399,102	¥1,127,286	¥1,278,240
Semiconductor production equipment	16,140,239	2,155,206	1,943,843	1,315,200	1,060,997	1,166,781
FPD production equipment	401,964	53,674	59,830	83,772	66,092	111,261
Other	1,084	144	131	129	197	197
Operating income	4,626,105	617,723	599,271	320,685	237,292	310,571
Income (loss) before income taxes	4,679,523	624,856	596,698	317,038	244,626	321,508
Net income (loss) attributable to owners of parent	3,531,671	471,584	437,076	242,941	185,206	248,228
Comprehensive income (loss)	3,755,123	501,421	486,183	305,801	187,084	242,696
Domestic sales	1,796,877	239,937	230,368	197,566	161,812	208,796
Overseas sales	14,746,411	1,969,088	1,773,437	1,201,535	965,474	1,069,443
Depreciation and amortization	321,484	42.927	36,727	33,843	29,107	24,323
Capital expenditures <sup>2</sup>	557,421	74,432	57,288	53,868	54,666	49,754
R&D expenses	1,431,862	191,196	158,256	136,648	120,268	113,980
Reb expenses	1,431,002	191,190	130,230	130,040	120,200	113,980
Total assets	17,311,421	2,311,594	1,894,457	1,425,364	1,278,495	1,257,627
Total net assets	11,978,768	1,599,524	1,347,048	1,024,562	829,692	888,117
Number of employees		17,204	15,634	14,479	13,837	12,742
,	(U.S. dollars)					(Yen)
Net income (loss) per share of common stock:						
Basic <sup>5</sup>	\$ 7.55	¥1,007.82	¥ 935.95	¥ 520.73	¥ 390.19	¥ 504.53
Diluted <sup>5</sup>	7.52	1,003.86	931.30	517.76	388.01	502.41
Net assets per share of common stock <sup>5</sup>	25.39	3,389.68	2,857.48	2,170.73	1,755.99	1,790.59
Cash dividends per share of common stock	12.81	1,711.00	1,403.00	781.00	588.00	758.00
Number of shares outstanding (thousands)		157,210	157,210	157,210	157,210	165,210
Number of shareholders		51,723	34,258	29,547	30,348	50,843
ROE		32.3	37.2	26.5	21.8	30.1
Operating margin		28.0	29.9	22.9	21.0	24.3
Equity ratio		68.7	70.5	71.1	64.1	70.0
Total asset turnover (times)		1.05	1.21	1.03	0.89	1.04
	416 1 11 2					
	(U.S. dollars)					(Thousands of yen)

<sup>1</sup> Depreciation and amortization does not include amortization and loss on impairment of goodwill.

# Stock Information (As of March 31, 2023)

Tokyo Stock Exchange Prime Market **Common Stock** Corporate Name Tokyo Electron Limited Listed on and Head Office (Stock code: 8035) Akasaka Biz Tower 3-1 Akasaka 5-chome, Minato-ku, KPMG AZSA LLC Independent Tokyo 107-6325, Japan Auditor Established November 11, 1963 Administrator of Shareholders' **Annual General** Register Meeting of Shareholders Direct mail and **Common Stock** Stock trading unit 100 shares inquiries to: 8-4 Izumi 2-chome, Suginami-ku, Authorized 300,000,000 shares 157,210,911 shares Issued Number of shareholders 51,723 Website www.tel.com

#### **Major Shareholders**

Shareholders	Number of shares held (thousand)	Voting share ratio (%)
The Master Trust Bank of Japan, Ltd.(trust account)	42,310	27.01
Custody Bank of Japan, Ltd.(trust account)	17,132	10.93
JP Morgan Chase Bank 385632	5,927	3.78
TBS HOLDINGS, INC.	5,435	3.47
STATE STREET BANK WEST CLIENT – TREATY 505234	2,710	1.73
Custody Bank of Japan, Ltd.(trust account 4)	2,651	1.69
SSBTC CLIENT OMNIBUS ACCOUNT	2,156	1.37
JP Morgan Chase Bank 385781	1,974	1.26
HSBC HONGKONG-TREASURY SERVICES A/C ASIAN EQUITIES DERIVATIVES	1,501	0.95
JP Morgan Securities Japan Co., Ltd.	1,482	0.94

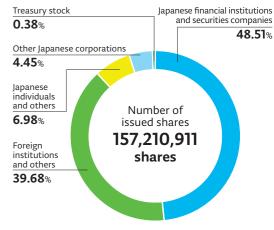
Note: 1 Shares of less than one thousand have been rounded down in the "Number of shares held"

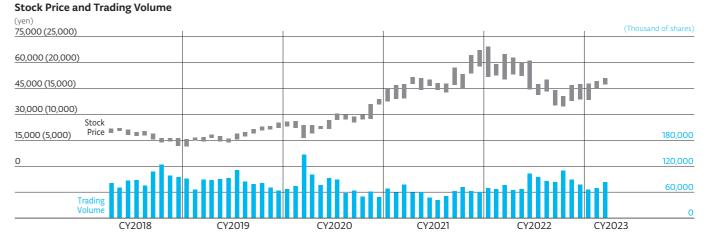
Sumitomo Mitsui Trust Bank, Limited 4-1 Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan

Sumitomo Mitsui Trust Bank, Limited

Tokyo, 168-0063, Japan Tel (toll free): 0120-782-031 (available only in Japan)

#### Distribution of Ownership among Shareholders





	2019.3	2020.3	2021.3	2022.3	2023.3
High (yen)	21,935	25,875	47,320	69,170	62,830
Low (yen)	11,595	13,760	18,925	42,670	34,550
Total shareholder return (%) (TOPIX, dividends reinvested)	83.7 (95.0)	108.4 (85.9)	244.4 (122.1)	333.6 (124.6)	266.6 (131.8)

Note: The Company implemented a 3-for-1 common stock split on April 1, 2023.

<sup>2</sup> Capital expenditures only represent the gross increase in property, plant and equipment.

<sup>3</sup> From fiscal 2019, the Company applied "Partial Amendments to Accounting Standard for Tax Effect Accounting" (Statement No. 28, revised on February 16, 2018) released by the ASBJ.

<sup>4</sup> From fiscal 2022, the Company applies "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29, March 31, 2020). Each number from the period ended March 31, 2022 includes the effects of the new

<sup>5</sup> The Company implemented a 3-for-1 common stock split on April 1, 2023. Net assets per share, net income per share and diluted net income per share are calculated on the assumption that stock split was implemented at the beginning of fiscal 2019. Dividends per share for the fiscal years ended March 31, 2019, through March 31, 2023, represent the amount of dividends before the stock split.

<sup>2</sup> Voting share ratios are calculated excluding treasury stock (589,793 shares). Figures are truncated after the second decimal place. Treasury stock excludes the 500,879 Company shares owned by the executive compensation Board Incentive Plan (BIP) trust account and the share-delivering Employee Stock Ownership Plan (ESOP).

The figures in ( ) on the left axis of the Stock Price and Trading Volume graph are the figures converted after the stock split.

# Sustainability Data

#### Environment

Tokyo Electron Limited and Subsidiaries From fiscal 2019 to fiscal 2023

 • denotes data in the "Tokyo Electron Sustainability Data 2023" with third-party assurance.
 www.tel.com/sustainability/data/index.html

#### **Greenhouse Gas Emissions**

O. CCIIIIOU.						
	_	2019.3	2020.3	2021.3	2022.3	2023.3
	Scope 1 emissions (kt-CO <sub>2</sub> )	24	28	29	16	22
	Japan, energy-derived <sup>1</sup>	7	10	10	10	10
	Overseas, energy-derived	2	2	2	2	2
	Non-energy-derived greenhouse gas emissions total <sup>2</sup> (kt-CO <sub>2</sub> e)	15	16	17	4	10
	Non-energy-derived greenhouse gas emissions (kt-CO2e) (Japan)	15	16	17	4	10
	Japan – HFCs	0.7	0.2	0.1	0.7	3.4
Scope 1	Japan – PFCs	8.5	10.6	13.2	1.3	5.6
emissions	Japan – SF6	5.1	5.0	3.1	1.4	1.2
	Japan – Other	0.3	0.4	0.6	0.4	0.2
	Non-energy-derived greenhouse gas emissions (kt-CO2e) (Overseas)	_	_	_	0.1	0.0
	Overseas – HFCs	_	_	_	0.0	0.0
	Overseas – PFCs	_	_	_	0.0	0.0
	Overseas – SF <sub>6</sub>	_	_	_	0.0	0.0
	Overseas – Other	_	_	_	0.1	0.0
	Scope 2 emissions (Market standard) (kt-CO <sub>2</sub> )	150	144	157	74	20
	Japan	120	118	128	55	04
Scope 2 <sup>3</sup>	Overseas	30	26	29	19	20
emissions	Scope 2 emissions (Location standard) (kt-CO <sub>2</sub> )	156	156	169	168	180
	Japan	125	129	138	136	144
	Overseas	30	26	31	33	36
	Scope 3 emissions (kt-CO <sub>2</sub> )	8,847	7,910	9,386	12,554	14,333
	Category 1 Purchased goods and services	2,177	1,796	2,395	3,332	4,053
	Category 2 Capital goods	150	164	162	172	224
	Category 3 Fuel- and energy-related activities	22	23	25	27	27
o 25	Category 4 Upstream transportation and distribution	9	9	9	15	19
Scope 3 <sup>5</sup> emissions	Category 5 Waste generated in operations	2	2	2	3	3
emissions	Category 6 Business travel	27	2	1	4	14
	Category 7 Employee commuting	12	12	11	12	14
	Category 9 Downstream transportation and distribution	80	90	80	121	120
	Category 11 Use of sold products	6,365	5,808	6,696	8,865	9,854
	Category 12 End-of-life treatment of sold products	3	3	3	4	5

1 Scope 1: Direct GHG emissions from use of fuel and gas we owned or controlled. Calculation method: Emissions = Σ (fuel consumed × CO<sub>2</sub> emission factor). Emission factor based on Japan's Act on Promotion of Global Warming Countermeasures

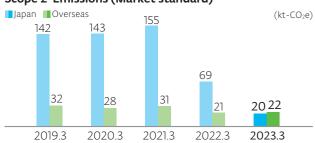
Global Warming Countermeasures

2 Scope 1: Non-energy-derived CO<sub>2</sub> and GHG other than CO<sub>2</sub>. Calculation method: Emissions = Σ (consumption × emission per unit consumption – amount recovered and properly treated) × global warming factor Global warming factor is based on Japan's Act on Promotion of Global Warming Countermeasures. From fiscal 2022, the value for the amount recovered and properly treated have been reviewed to match

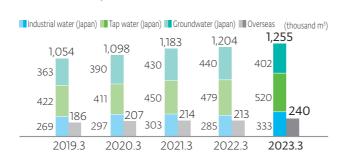
3 Scope 2: Indirect GHG emissions from use of electricity we purchased Calculation method: Emissions = Σ (purchased electricity × CO<sub>2</sub> emission factor). Adjusted emission factors for the electrical power providers concerned based on Japan's Act on Promotion of Global Warming. Countermeasures were used as the emission factor for Japan.

Emission factors based on values from the Emissions Factors 2019 edition published by the International Energy Agency (IEA) were used as the emission factor for overseas electricity consumption
4 Figure after Non-Fossil Certificate Equivalent Amount Deduction. Scope 2 emissions prior to Non-Fossil Certificate Equivalent Amount Deduction is 6 kt-CO<sub>2</sub>.
5 Scope 3: Emissions from corporate value chains (excluding scope 1 and 2 emissions), such as product transportation, employee business travel and major outsourced production processes. The entire scope is divided into 15 categories, of which calculations were made for categories 1, 2, 3, 4, 5, 6, 7, 9, 11 and 12. Revised past figures. Calculations for categories 8, 10, 13, 14 and 15 were not made as they are either not included in our activities or have already been included in other categories.

#### Scope 1 Emissions and Scope 2 Emissions (Market standard)



#### **Water Consumption**



#### **Resource Consumption**

	•	2019.3	2020.3	2021.3	2022.3	2023.3
Water	Consumption (thousand m <sup>3</sup> )	1,240	1,305	1,397	1,417	1,495
	Japan	1,054	1,098	1,183	1,204	1,255
	Groundwater	363	390	430	440	402
	Tap water	422	411	450	479	520
	Industrial water	269	297	303	285	333
	Overseas	186	207	214	213	240
Copier paper	Use (t) (Japan)	165	132	38	32	138

**Energy Consumption/Generation** 

Energy Consumption	n/Generation					
		2019.3	2020.3	2021.3	2022.3	2023.3
	Consumption metric (sales) (kL/billion yen)	0.63	0.75	0.68	0.50	0.48
Enorm/	Consumption (crude oil equivalent) (kL)	81,074	85,074	94,746	100,265	106,637
Energy	Japan	65,897	70,642	78,126	82,703	87,137
	Overseas	15,177	14,432	16,620	17,562	19,499
Electricity	Consumption (MWh)	305,795	317,614	354,961	377,432	402,183
	Japan	250,911	265,293	294,652	313,322	330,791
	Overseas	54,884	52,321	60,309	64,110	71,392
	Consumption (crude oil equivalent) (kL)	2,991	3,565	3,820	3,796	3,898
Gas (city gas, LPG)	Japan	1,948	2,611	2,728	2,738	2,776
	Overseas	1,043	954	1,092	1,058	1,122
F. IZhan a TA Jina La	Consumption (crude oil equivalent) (kL)	1,072	1,624	1,667	1,625	1,526
Fuel (heavy oil A, diesel oil, kerosene, gasoline)	Japan	1,055	1,603	1,651	1,612	1,513
	Overseas	17	21	16	13	13
Danas sabla anasas	Purchase (MWh)	3,834	3,334	4,980	227,523	365,876
Renewable energy (electricity)	Japan	0	0	0	197,137	330,791
(ciccurcity)	Overseas	3,834	3,334	4,980	30,386	35,085
D) /	Power generation (MWh)	4,392	3,804	4,068	3,890	4,110
PV power generation system	Japan	4,392	3,804	4,068	3,890	4,110
System	Overseas	0	0	0	0	0
Amount of self-consumption	Amount of self-consumption (MWh)	3,010	2,579	2,783	2,695	2,780
through onsite solar power	Japan	3,010	2,579	2,783	2,695	2,780
generation system	Overseas	0	0	0	0	0
	Power sales (MWh) <sup>2</sup>	1,382	1,225	1,285	1,195	1,330
Power sales	Japan	1,382	1,225	1,285	1,195	1,330
	Overseas	0	0	0	0	0
D Islanda	Electricity use rate (%)	2	2	2	60	91
Renewable energy (electricity) use rate	Japan	1	1	1	63	100
(electricity) use rate	Overseas	7	6	8	47	49

1 Calculated using the conversion factors for fuel, gas and electricity in relation to the Act on Rationalizing Use of Energy and Shifting to Non-fossil Energy

2 Heat and steam not sol

#### **Environmental Impact of Logistics**

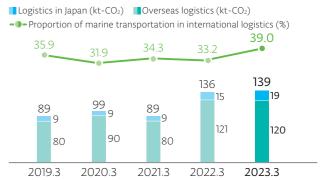
		2019.3	2020.3	2021.3	2022.3	2023.3
CO <sub>2</sub>	Emissions (kt-CO <sub>2</sub> )	89	99	89	136	139
	Japan	9	9	9	15	19
	Overseas*	80	90	80	121	120
Proportion of marine transportation (international) (%)		35.9	31.9	34.3	33.2	39.0
Use of reinforced cardboard	Reduction in amount of wooden packaging materials used (t) Japan	_	_	_	_	2,000

\* Revised past CO2 emissions

#### **Electricity Consumption**



#### CO2 Emissions from Logistics and the Proportion of Marine Transportation



#### **Data Section**

#### **Amount of Waste Generated**

Amount of waste	Generated					
	_	2019.3	2020.3	2021.3	2022.3	2023.3
	Amount generated (t)	14,960	13,989	14,997	14,459	18,249
Waste	Japan	14,208	12,973	13,705	12,921*	17,047
	Overseas	752	1,016	1,292	1,538	1,202
	Amount generated (t)	6,951	6,228	7,227	5,231	5,634
Dangerous/Hazardous waste	Japan (Specially controlled industrial waste)	6,619	5,911	6,718	4,705*	5,239
	Overseas (Dangerous/Hazardous waste per country)	332	317	509	526	395
	Recycled amount (t)	14,770	13,748	14,814	14,189	17,978
Recycling	Japan	14,092	12,831	13,587	12,789*	16,912
	Overseas	678	917	1,227	1,400	1,066
	Amount of waste (t)	190	241	183	270	271
Incinerated and landfill waste	Japan	116	142	118	132	135
waste	Overseas	74	99	65	138	136
	Water discharge volume (thousand m³)	1,006	1,078	1,195	1,194	1,272
Water discharges	Japan	850	900	1,006	1,009	1,062
	Overseas	156	178	189	185	210

<sup>\*</sup> Revised past amount generated

Chemical Substances Consumption/Emissions (Japan)

Circinical Substante	-3 Consumption, Emissions (Japan) _					
		2019.3	2020.3	2021.3	2022.3	2023.3
	Volume handled (t)	101	121	144	119	104
	Ferric chloride	84	98	106	85	76
	Hydrogen fluoride and its water-soluble salts	11	12	24	22	16
PRTR Class I designated	Methylnaphthalene	5	10	13	11	10
chemical substances	VOCs*	0.0	0.1	0.1	0.1	0.1
	Other	1	1	1	1	1
	Amount transported (waste amount) (t)	96	111	131	108	94
	Consumption (t)	5	10	13	11	10
NOx	Emissions (t)	9.6	11.9	13.0	13.1	12.7
SOx	Emissions (t)	2.8	4.0	4.9	4.8	4.5

<sup>\*</sup> VOCs: Volatile Organic Compounds

#### Other

		2019.3	2020.3	2021.3	2022.3	2023.3
	Number of certified offices	9	9	11	11	11
ISO 14001	Japan	5	5	5	5	5
	Overseas	4	4	6	6	6
Biodiversity	Number of ecosystem tours*	17	18	18	16	22
blodiversity	Number of ecosystem tour participants*	595	368	52	11 5 6	138
Environmental laws and	Number of breaches of environmental laws and regulations	0	0	0	0	0
regulations	Amount of fines for breaches of laws and regulations	0	0	0	0	0
Total product shipment (t)*		32,715	31,184	28,862	41,352	48,922

<sup>\*</sup> Scope: Japan

#### Recycling Rate/Generation of Incinerated and Landfill Waste in Japan



2019.3

2020.3

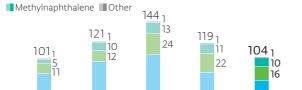
- - Recycling rate (%): (Recycled amount/Amount of waste generated) × 100



2021.3 2022.3

2023.3

#### **Volume of PRTR Class I Designated Chemical Substances** Handled in Japan





#### Social

Tokyo Electron Limited and Subsidiaries

From fiscal 2019 to fiscal 2023

\* • denotes data in the "Tokyo Electron Sustainability Data 2023" with third-party assurance.

#### Number of Employees (Entire Group)

Nullibel of Lilipion	rees (Littile Gloup)					
		2019.3	2020.3	2021.3	2022.3	2023.3
Regular employees (Region)	Number of regular employees	12,469	13,542	14,022	15,140	16,605
	Japan	7,526	7,806	7,921	8,234	8,796
	Rest of Asia	2,832	3,494	3,796	4,328	4,819
	Europe and Middle East	513	528	509	578	669
	North America	1,598	1,714	1,796	2,000	2,321

#### Composition of Employees (Japan)

		2019.3	2020.3	2021.3	2022.3	2023.3
Facility of	Number of employees	7,797	8,100	8,296	8,661	9,325
	Regular employees	7,526	7,806	7,921	8,234	8,796
	Men	6,479	6,681	6,722	6,944	7,429
Employees (Employment type)	Women	1,047	1,125	1,199	1,290	1,367
(Еттрюуттепт туре)	Non-regular employees	271	294	375	427	529
	Men	220	263	348	403	490
	Women	51	31	27	24	39

#### Recruitment/Employment (Japan)

Recruitment/ Emplo		2019.3	2020.3	2021.3	2022.3	2023.3
	Number hired	199	281	253	209	231
	Under 30 yrs. old	198	280	252	208	231
	Men	166	233	207	177	193
	Women	32	47	45	31	38
	30-49 yrs. old	1	1	1	1	0
New graduates hired	Men	1	1	1	0	0
	Women	0	0	0	1	0
	50 yrs. old and over	0	0	0	0	0
	Men	0	0	0	0	0
	Women	0	0	0	0	0
	Percentage of women	16.1	16.7	17.8	15.3	16.5
	Number hired	239	150	191	400	580
	Under 30 yrs. old	85	42	56	131	209
	Men	67	35	49	96	185
	Women	18	7	7	35	24
	30-49 yrs. old	145	96	123	250	355
Career-track recruits	Men	119	82	92	202	306
	Women	26	14	31	48	49
	50 yrs. old and over	9	12	12	19	16
	Men	5	10	11	17	13
	Women	4	2	1	2	3
	Percentage of women	20.1	15.3	20.4	21.3	13.1
Employees with disabilities	Percentage hired (TEL)	2.18	2.06	2.43	2.32	2.03
Employees with disabilities	Percentage hired (Group in Japan)	2.04	2.01	2.30	2.37	2.27
	Number of users	201	242	313	389	475
Reemployment system	Men	196	235	305	376	451
	Women	5	7	8	13	24
Percentage of regular employees wh	no received regular performance and career evaluations	100.0	100.0	100.0	100.0	100.0

#### Female managers (Entire Group)

		2019.3	2020.3	2021.3	2022.3	2023.3		
	Number of people	_	_	_	163	182		
Ratio of Female Managers <sup>1, 2</sup>	Percentage	_	_	_	5.5	5.7		
Ratio of Ferriale Mariagers	Number of people (senior directors and above <sup>3</sup> )	_	_	_	10	16		
	Percentage (senior directors and above <sup>3</sup> )	_	_	_	2.2	3.3		

Percentage of female managers, calculation method: (Number of female managers/Number of managers) × 100 (Include individual contributors in the number of managers from fiscal 2022)

<sup>2</sup> As of March 31 3 Employees of a certain level or position based on the global human resources system

#### Female managers (Japan)

	•	2019.3	2020.3	2021.3	2022.3	2023.3
Female managers <sup>1, 2</sup>	Number of people	22	23	26	46	51
	Percentage	2.0	2.0	2.2	2.6	2.7

1 Percentage of female managers, calculation method: (Number of female managers/Number of managers) × 100 (Include individual contributors in the number of managers from fiscal 2022) 2 As of March 31

#### Employee retention (Japan)

		2019.3	2020.3	2021.3	2022.3	2023.3
	Retention after three years of joining TEL*	93.0	93.8	94.1	94.7	92.7
	Men	93.5	94.6	94.8	95.0	93.2
Employee retention	Women	88.0	88.6	89.3	93.5	90.6
	Average service years	17 yrs. 2 mos.	17 yrs. 2 mos.	17 yrs. 4 mos.	17 yrs. 2 mos.	16 yrs. 8 mos.
	Men	17 yrs. 5 mos.	17 yrs. 5 mos.	17 yrs. 7 mos.	17 yrs. 6 mos.	16 yrs. 10 mos.
	Women	15 yrs. 8 mos.	15 yrs. 11 mos.	15 yrs. 10 mos.	15 yrs. 8 mos.	15 yrs. 7 mos.

<sup>\*</sup> Average in recent five years

#### **Employee turnover (Entire Group)**

. ,	` ' ' '					
		2019.3	2020.3	2021.3	2022.3	2023.3
	Employee turnover	_	_	_	589	599
Turnover*	Men	_	_	_	507	509
Turnover	Women	_	_	_	82	90
	Turnover percentage	_	_	_	4.2	3.9

<sup>\*</sup> Turnover due to personal circumstances

#### Employee turnover (Japan)

= inprojectanioten						
		2019.3	2020.3	2021.3	2022.3	2023.3
	Employee turnover	108	82	87	87	98
Turnover*	Men	88	54	75	69	81
Turnover	Women	20	28	12	18	17
	Turnover percentage	1.4	1.0	1.0	1.0	1.1

<sup>\*</sup> Turnover due to personal circumstances

#### Work-life Balance (Japan)

		2019.3	2020.3	2021.3	2022.3	2023.3
Annual paid leave	Take-up rate <sup>1</sup>	67.2	72.6	62.5	64.6	70.0
	Number of those who took leave	605	901	688	512	1,731
Refreshment leave	Men	507	773	610	435	1,485
	Women	98	128	78	77	246
Paternity leave	Number of those who took leave	155	184	148	137	149
	Number of those who took leave	56	46	41	70	96
	Men	8	12	16	36	57
	Women (percentage who took leave)	48(100.0)	34(97.1)	25(92.6)	34(97.1)	39(97.5)
Childcare leave	Number of those who returned to work after leave	43	48	54	60	76
	Men	6	8	15	32	43
	Women	37	40	39	28	33
	Percentage reinstated	93.5	94.1	96.4	95.2	98.7
	Retention rate	88.9	93.3	95.0	90.0	97.9
Shorter working hour system  Leave to care for sick/ injured child	Number of those who used	153	149	132	110	105
	Men	8	11	9	7	10
	Women	145	138	123	103	95
Leave to care for sick/	Number of those who took leave	517	625	510	547	599
	Men	334	428	353	373	424
injured crilid	Women	183	197	157	174	175
	Number of those who took leave	129	125	86	80	98
Childcare support leave	Men	26	26	29	23	33
	Women	103	99	57	57	65
	Number of those who took leave	5	2	2	1	4
Extended nursing care leave	Men	2	2	0	0	4
leave	Women	3	0	2	1	0
	Number of those who took leave	63	95	110	87	85
Short nursing care leave	Men	38	56	69	57	53
	Women	25	39	41	30	32
	Number of those who used	2	2	0	4	0
Shorter working hour system for nursing care	Men	0	1	0	2	0
system for mursing care	Women	2	1	0	2	0

<sup>1</sup> Take-up rate of annual paid leave calculation method: (Days of paid leave taken by employees<sup>2</sup>) / (Days of paid leave provided to employees<sup>2</sup>) × 100 2 Incl. non-regular employees

#### Products/Innovation

		2019.3	2020.3	2021.3	2022.3	2023.3
	n-compliance with regulations and voluntary codes y impacts of products and services	0	0	0	0	0
Number of active issued patents	Number of active issued patents	17,473	18,137	18,692	19,572	21,645
	Japan	5,304	5,348	5,484	5,703	6,307
Authoritan district	U.S.	4,415	4,606	4,822	4,988	5,360
Active issued patents (Region/Country) <sup>1</sup>	Europe	179	191	206	167	2
(Region, country)	Korea	3,076	3,223	3,363	3,731	4,683
	Taiwan	2,817	2,948	2,925	3,014	3,120
	China	1,682	1,821	1,892	1,969	2,175

		2017.12 <sup>3</sup>	2018.12 <sup>3</sup>	2019.12 <sup>3</sup>	2020.123	2021.123
Global patent application rate		81.2	79.8	74.3	74.6	80.14
Patent application success rate	Japan	82.9	83.1	84.9	79.8	74.5
Paterit application success rate	U.S.	85.1	85.5	87.3	83.9	81.5

<sup>1</sup> Figures for fiscal 2019 to fiscal 2022 are based on our database; figures for fiscal 2023 are based on LexisNexis® PatentSight® database. 2 Europe is not included in the scope.

# Customers 2019.3 2020.3 2021.3 2022.3 2023.3 Percentage of respondents who selected "Very Satisfied" or "Satisfied" in the customer satisfaction survey 84.4 93.3 96.7 100.0 100.0

Safety					
Surcey	2019.3	2020.3	2021.3	2022.3	2023.3
Percentage of employees who received training on basic safety	100	100	100	100	100
Percentage of employees who received training on advanced safety	100	100	100	100	100
Lost time incident rate (LTIR)	0.40	0.51	0.63	0.66	0.83
Number of workplace injuries per 200,000 work hours (TCIR)	0.20	0.23	0.27	0.30	0.33

Procurement					
Floculement	2019.3	2020.3	2021.3	2022.3	2023.3
Percentage of new important suppliers screened using social criteria	100	100	100	100	100
Rate of improvement after supply chain sustainability assessment	*	35.8	23.1	31.5	30.5
Rate of improvement after supply chain BCP assessment	19.4	16.0	20.3	24.4	22.2
Number of identified RMAP conformant smelters (rate of identification)	253 (100)	261 (100)	236 (100)	243 (100)	234(100)

<sup>\*</sup> Unable to compare with previous fiscal year due to comprehensive revisions, including the survey

#### Governance 2019.3 2020.3 2021.3 2022.3 2023.3 Total number of critical incidents notified to the Board of Directors Total number of incidents subject to legal action on the basis of anti-competitive conduct, antitrust 0 0 0 0 $\cap$ activity or monopolistic practices where the governance body's involvement was revealed Number of executive officers who received training on anti-corruption 1 15 20 28 Total number (percentage) of directors who provided instructions on the body's policies and procedures in relation to anti-corruption 12(100) 11(100) 11(100) 12(100) 6 (100) Total number (percentage) of directors who received training on anti-corruption 0(0) 11(100) 0 (0) 0(0) 3 (50) Payment to industry groups, etc. (thousand yen)<sup>2</sup> 21,093 29,927 32,036 56,374 73,313 Payment to politically affiliated organizations (yen) 0 0 0 0 0 Average tenure of directors 7.36 4.84 6.09 6.58 5.16 Average rate of attendance for Board meetings 99.50 98.24 99.39 98.96 98.62

<sup>1</sup> Scope: Japan 2 Industry groups were reviewed from fiscal 2022

Compliance -					
Compilance	2019.3	2020.3	2021.3	2022.3	2023.3
Education on TEL's Code of Ethics/pledge rate*	_	_	98.8	91.6	96.1
Percentage of employees who have consented to the information security agreement	100.0	100.0	99.4	99.9	100.0
Significant fines and non-monetary sanctions for non-compliance with laws and regulations in the social and economic area	0	0	0	0	0

<sup>\*</sup> Scope: Entire Group

#### Social Contribution

Social Cont							
Jociai Com	=	2019.3	2020.3	2021.3	2022.3	2023.3	
Spending on so	cial contribution (million yen)*	281	250	244	170	301	
C	Charity donations (providing donations/relief supplies to charity organizations)	11	4	13	15	9	
Cash donations breakdown	Community investment (charitable expenses for long-term cause for community)	55	68	62	75	40	
DICANGOVVII	Commercial initiatives (charitable expenses with anticipated effects on business growth)	34	28	25	10	51	

<sup>\*</sup> Spending on social contribution activities excluding disaster relief contributions

<sup>3</sup> Calendar year when patents were filed/granted 4 Added international applications filed under the Patent Cooperation Treaty (PCT) to applications filed in other countries.