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 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
- 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)

**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**

- FACT BOOK: www.tel.com/ir/library/fb/
- Sustainability Website: www.tel.com/sustainability/index.html
- Corporate Governance Guidelines and Report: www.tel.com/about/gg/index.html
- Corporate Profile: www.tel.com/files/about/library/pv8va20000001ffv-att/corporate_guide_e.pdf

**Contents**

**Chapter 1** About Tokyo Electron

- CEO’s Message .................................................. 3
- Corporate Principles System ................................. 5
- Company Overview .............................................. 7
- Highlights of Key Indicators for Continuous Corporate Value Enhancement ......................... 9

**Chapter 2** Value Creation Story

- Characteristics of Semiconductor Production Equipment Business — ........................................... 11
- The Driving Forces of Growth and Strengths behind Our Company ............................................. 12
- Material Issues .................................................... 13
- Medium-term Management Plan ............................... 15
- Value Creation Model ............................................. 21
- Stakeholder Engagement ........................................ 23

**Chapter 3** Value Creation by the Value Chain

- Initiatives in the Value Chain .................................. 25
- Research and Development .................................. 27
- Procurement and Manufacturing ............................. 31
- Sales .............................................................. 35
- Installation and Maintenance Services ..................... 39

**Chapter 4** Toward Further Growth

- Sustainability Initiatives in the Value Chain .................. 43
- Human Resources ................................................. 44
- Human Rights .................................................... 47
- Compliance ........................................................ 48
- Supply Chain Management ..................................... 50
- Environment ...................................................... 51
- Safety .............................................................. 56
- Quality .............................................................. 57
- Continuous Improvement of Business Operations and Creation of New Values .......................... 58
- Corporate Governance .......................................... 59
- Interview with Outside Directors ............................. 67
- Risk Management ................................................ 69
- Information Security ............................................. 71
- Engagement with Capital Markets ........................... 71
- Evaluation from Third-party Institutions .................... 72
- Participation in Global Initiatives ............................ 72

**Data Section**

- Financial Review ................................................ 75
- Consolidated Five-year Summary ............................ 79
- Stock Information ................................................ 80
- Sustainability Data ................................................. 81
Tokyo Electron 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-term 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 instilled innovation and grown by staying true to our venture spirit. The uses for semiconductor technologies expanded to computers, TVs, 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, the Internet led to the connection of billions of devices, as we move from peak to peak.

In addition, we endeavor to implement appropriate balance 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.

As one pillar of our management, we are also focusing on initiatives for diversity, equity, and inclusion, in an effort to enhance socioeconomic diversity (encapsulating 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.

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 life. 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 CO2 emissions in all business activities

We are aimed at realizing net zero for Scope 1 and 2 emissions by 2040, and for Scope 3 emissions by 2050.

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

2. Dreams and expectations of the Company's future

3. Opportunities to take on challenges

4. A fair evaluations that recognize employee efforts and globally competitive rewards

5. Workplace with an open atmosphere and positive communication

As one pillar of our management, we are also focusing on initiatives for diversity, equity, and inclusion, in an effort to enhance socioeconomic diversity (encapsulating Global, Gender, and Generation aspects).
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 Principles System**

**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.

**Vision**

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.

**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.

- **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.

**About Tokyo Electron**

Chapter 1

**TEL Values**

- **Pride**
  - We take pride in providing high-value products and services.
  - We offer our customers cutting-edge 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.

- **Sense of Ownership**
  - 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.

- **Challenge**
  - 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.

- **Respect for human rights**
  - 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 have established the TEL Values, and we will continue to develop them accordingly in the future.**
Chapter 1
About Tokyo Electron

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.

Number of Sites (As of April 1, 2023)

- **Japan:** 6 companies at 27 sites
- **Overseas:** 20 companies at 56 sites in 17 countries and regions
- **Worldwide total:** 26 companies as 83 sites in 18 countries and regions (consolidated)

History

- **1960s~**
  - Founded as technical specialized trading company
- **1970s~**
  - Mainframe Computer
- **1980s~**
  - Single Chip Microprocessor
  - VLSI (Very Large Scale Integration)
  - Mobile Phone
  - Aspiration toward innovation and new growth
- **2000s~**
  - Digital Camera Electronics
  - Accelerating globalization
  - Big Data
- **2020s~**
  - Cloud Computing

Sales by Region (Consolidated)

- **Southeast Asia, and Others:** 121.6 billion yen (Fiscal 2023) (54.2%)
- **Europe:** 184.2 billion yen (Fiscal 2023) (8.3%)
- **Japan:** 527.4 billion yen (Fiscal 2023) (23.9%)
- **China:** 432.6 billion yen (Fiscal 2023) (19.6%)
- **Taiwan:** 358.7 billion yen (Fiscal 2023) (16.2%)
- **North America:** 239.9 billion yen (Fiscal 2023) (10.9%)
- **South Korea:** 444.3 billion yen (Fiscal 2023) (15.6%)
- **Asia:** 4,847 billion yen (Fiscal 2023) (28.2%)

Number of Employees by Region (Consolidated)

- **Japan:** 9,325 people
- **Europe:** 711 people
- **North America:** 2,321 people
- **China:** 2,209 people
- **South Korea:** 358 people
- **Asia:** 17,204 people

Semiconductor Manufacturing Process and Our Main Products

- **Deposition**
- **Etching**
- **Cleaning**
- **Interconnect Formation**
- **Testing**
- **Packaging/Inspection**

Examples of semiconductor product applications

- **Photoresist coating, Development**
- **Frame Prober**
- **Wafer Probe**
- **Wafer Bonding/Dicing**
- **Photoresist**

About Tokyo Electron

Chapter 1
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.

### Net Sales and Gross Profit Margin

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Sales (Billions of yen)</th>
<th>Gross Profit Margin (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>1,278.2</td>
<td>34.8</td>
</tr>
<tr>
<td>2020.3</td>
<td>1,327.2</td>
<td>34.5</td>
</tr>
<tr>
<td>2023.3</td>
<td>2,003.8</td>
<td>44.6</td>
</tr>
<tr>
<td>2022.3</td>
<td>2,209.0</td>
<td>44.0</td>
</tr>
</tbody>
</table>

Due to the expansion of the semiconductor production equipment market, we 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.

### Operating Income and Operating Margin

<table>
<thead>
<tr>
<th>Year</th>
<th>Operating Income (Billions of yen)</th>
<th>Operating Margin (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>244.3</td>
<td>8.0</td>
</tr>
<tr>
<td>2020.3</td>
<td>237.2</td>
<td>8.5</td>
</tr>
<tr>
<td>2023.3</td>
<td>349.4</td>
<td>17.5</td>
</tr>
<tr>
<td>2022.3</td>
<td>219.0</td>
<td>10.0</td>
</tr>
</tbody>
</table>

By reliably meeting the growing demand for semiconductor production equipment, our net sales increased, and so did our 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.

### Free Cash Flow

<table>
<thead>
<tr>
<th>Year</th>
<th>Free Cash Flow (Billions of yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>205.3</td>
</tr>
<tr>
<td>2020.3</td>
<td>210.3</td>
</tr>
<tr>
<td>2023.3</td>
<td>237.2</td>
</tr>
<tr>
<td>2022.3</td>
<td>223.6</td>
</tr>
</tbody>
</table>

Free cash flow increased compared to the previous fiscal year due to an increase in net sales despite the increase in procurement volume and inventory to respond quickly to market growth.

### R&D Expenses

<table>
<thead>
<tr>
<th>Year</th>
<th>R&amp;D Expenses (Billions of yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>119.9</td>
</tr>
<tr>
<td>2020.3</td>
<td>120.2</td>
</tr>
<tr>
<td>2023.3</td>
<td>195.1</td>
</tr>
<tr>
<td>2022.3</td>
<td>186.6</td>
</tr>
</tbody>
</table>

To continuously create high-value-added next-generation products, we made an R&D investment of 571 billion yen in fiscal 2023. We plan to invest over 1 trillion yen over the five years until fiscal 2027.

### Net Income Attributable to Owners of Parent and ROE

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Income Attributable to Owners of Parent (Billions of yen)</th>
<th>Net Income per Share</th>
<th>ROE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>349.5</td>
<td>178.2</td>
<td>13.0</td>
</tr>
<tr>
<td>2020.3</td>
<td>199.5</td>
<td>98.3</td>
<td>12.8</td>
</tr>
<tr>
<td>2023.3</td>
<td>237.2</td>
<td>113.9</td>
<td>20.0</td>
</tr>
<tr>
<td>2022.3</td>
<td>219.0</td>
<td>100.0</td>
<td>19.0</td>
</tr>
</tbody>
</table>

Net income per share also increased due to the increase in net income attributable to owners of parent.

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Respondents Who Selected “Very Satisfied” or “Satisfied” (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>84.4</td>
</tr>
<tr>
<td>2020.3</td>
<td>93.3</td>
</tr>
<tr>
<td>2023.3</td>
<td>100.0</td>
</tr>
<tr>
<td>2022.3</td>
<td>96.7</td>
</tr>
</tbody>
</table>

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.

### Workplace Incidents per 200,000 Work Hours (TCIR)

<table>
<thead>
<tr>
<th>Year</th>
<th>Workplace Incidents per 200,000 Work Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>0.20</td>
</tr>
<tr>
<td>2020.3</td>
<td>0.23</td>
</tr>
<tr>
<td>2022.3</td>
<td>0.30</td>
</tr>
<tr>
<td>2023.3</td>
<td>0.33</td>
</tr>
</tbody>
</table>

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.

### Employee Retention Rates (Japan)

<table>
<thead>
<tr>
<th>Year</th>
<th>Employee Retention Rates (Japan) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>98.6</td>
</tr>
<tr>
<td>2020.3</td>
<td>99.0</td>
</tr>
<tr>
<td>2022.3</td>
<td>99.0</td>
</tr>
<tr>
<td>2023.3</td>
<td>98.9</td>
</tr>
</tbody>
</table>

Recognising 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.

### Installation of Renewable Energy at Plants and Offices

<table>
<thead>
<tr>
<th>Year</th>
<th>Installation of Renewable Energy at Plants and Offices (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>2</td>
</tr>
<tr>
<td>2020.3</td>
<td>2</td>
</tr>
<tr>
<td>2022.3</td>
<td>2</td>
</tr>
<tr>
<td>2023.3</td>
<td>2</td>
</tr>
</tbody>
</table>

With an increase in operating income, net income attributable to owners of parent also reached a record high. We maintained an ROE of over 30%, one of our Medium-term Management Plan goals.

### Cash Dividends per Share

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash Dividends per Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>100.0</td>
</tr>
<tr>
<td>2020.3</td>
<td>100.0</td>
</tr>
<tr>
<td>2023.3</td>
<td>100.0</td>
</tr>
<tr>
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<td>100.0</td>
</tr>
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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.

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<td>98.9</td>
</tr>
</tbody>
</table>

Recognising 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.
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 role of semiconductor production equipment manufacturers in semiconductor production

The world’s only manufacturer with processes that cover all key processes necessary for semiconductor scaling: deposition, coater/developer, etch and cleaning.

100% share in EUV lithography coater/developer, which are necessary for semiconductor evolution.

Our product lines are strongly positioned in their respective segments, all of which having achieved first or second place in market share.

Technical service and marketing developed based on relationships of absolute trust with customers, built through the highest number of installations in the world.

Industry-leading absolute trust based on cumulative shipments of approximately 88,000 units annually.

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.

The Driving Forces of Growth and Strengths behind Our Company

| No. 1 | Only one
| --- | ---
| | The world’s only manufacturer with products for the four sequential key processes necessary for semiconductor scaling: deposition, coater/developer, etch and cleaning.
| | 100% share in EUV lithography coater/developer, which are necessary for semiconductor evolution.
| |
| No. 2 | Our product lines are strongly positioned in their respective segments, all of which having achieved first or second place in market share.
| |
| No. 3 | Technical service and marketing developed based on relationships of absolute trust with customers, built through the highest number of installations in the world.

| No. 1 | Industry-leading absolute trust based on cumulative shipments of approximately 88,000 units annually.
| |
| No. 1 | Globally No. 1 patents owned in the semiconductor production equipment industry.

The Driving Forces of Growth and Strengths behind Our Company

| Driving Force 1 | 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.
| |
| Driving Force 2 | 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.
| | 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.
| |
| Driving Force 3 | 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 management that emphasizes employee motivations.
| | Implementation of TEL Value, which summarizes the company culture that we have treasured since our founding, values and codes of conduct for all employees.
| |

Technological innovations in semiconductors driving the growth of the production equipment market.
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 a 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 semiconductor and semiconductor production equipment market as we move rapidly to a data-driven society
    - Initiatives for the preservation of the global environment
    - Human rights initiatives
    - Further strengthening of corporate governance
  - Risks for Our Company and Main Initiatives
    - Identify the following cross-domain 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
  - Stakeholder Engagement
    - Shareholders/Investors
      - Return of profit generated from business activities
      - 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 individual
    - 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
  - Discussion and approval at the Corporate Officers Meeting and report to the Board of Directors

- Identified Material Issues

<table>
<thead>
<tr>
<th>Material Issues</th>
<th>Awareness as Material Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuously creating and providing high value-added next-generation products</td>
<td>Customer Satisfaction</td>
</tr>
<tr>
<td>Building strong relationships based on trust with our customers and pursuing technological innovation in semiconductors</td>
<td>Human Rights</td>
</tr>
<tr>
<td>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</td>
<td>Environmental Protection</td>
</tr>
<tr>
<td>It is vital to work to enhance a strong management foundation that underpins our business activities, focused around the three material issues above</td>
<td>Transparency</td>
</tr>
<tr>
<td>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 operations</td>
<td>Corporate Governance</td>
</tr>
</tbody>
</table>

- Initiatives to the SDGs

  - Strengthening Research and Development Capabilities
  - Collaboration with Consortiums and Academia
  - New Product/Function Development
  - Intellectual Property Management
  - Customer Solutions Leveraging a Wide Range of Product Lines
  - Expanding into the Diversified Semiconductor Market
  - Initiatives for Improvement of Customer Satisfaction
  - Globalize Field Engineers and Strengthen Customer Responsiveness
  - Promotion of High-value-added Services
  - Initiatives for Continuous Equipment Support
  - New Product/Function Development
  - The Use of Materials Informatics
  - World-class Manufacturing Operations
  - Promotion of High-value-added Services
  - Quality
  - Continuous Improvement of Business Operations and Creation of New Values
  - Human Resources
  - Human Rights
  - Compliance
  - Supply Chain Management
  - Environment
  - Safety
  - Quality
  - Continuous Improvement of Business Operations and Creation of New Values
  - Corporate Governance
  - Risk Management
  - Information Security
  - Environmental Awareness
  - Corporate Governance
  - Risk Management
  - Information Security
Chapter 2
Value Creation Story

Medium-term Management Plan

Main Initiatives in the Medium-term Management Plan

- 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.

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 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.

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.

Main Initiatives

- In preparation to support future cumulative installed 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 AI.
- 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.

- Hiroshi Kawamoto, Senior Vice President, GM, Finance Unit

Message from the 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:
- Actively 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 medium- to long-term management targets and to achieve high dividends coupled with flexible repurchases of treasury stocks. Regarding dividends for shareholders, we mainly adopt a performance-linked model, aiming for a payout ratio of 50% of 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.
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 regulations below for each indicator:

**Finance**
- **Sale & Marketing: 10% or more**
  - Fiscal Year 2027: 12.2%
  - Fiscal Year 2028: 10.3%
  - Fiscal Year 2029: 12.0%
- **Operating Margin: 35% or more**
  - Fiscal Year 2027: 38.9%
  - Fiscal Year 2028: 37.5%
  - Fiscal Year 2029: 35.6%
- **Return on Equity: 30% or more**
  - Fiscal Year 2027: 30.8%
  - Fiscal Year 2028: 30.3%
  - Fiscal Year 2029: 30.0%

**Research and Development**
- Continuously create high value-added new generation products by implementing R&D expense of more than 1 trillion yen over 5 years
  - Fiscal Year 2027: 2,209 billion yen
  - Fiscal Year 2028: 2,401 billion yen
  - Fiscal Year 2029: 2,900 billion yen
  - Refer to our initiatives in the Medium-term Management Plan: p.15-16

**Plants and Offices**
- Reduce CO2 emissions by 70% (compared to fiscal 2016)
  - Fiscal Year 2027: 75.9%
  - Fiscal Year 2028: 85.3%
  - Fiscal Year 2029: 90.5%

**Logistics**
- Reduce the usage rate of warm packaging for products to 50% of less packaging of semiconductor production equipment
  - Fiscal Year 2027: 93.4%
  - Fiscal Year 2028: 95.3%
  - Fiscal Year 2029: 97.6%

**Products**
- Reduce yearly-waste emissions of CO2 by 30% (compared to fiscal 2016)
  - Fiscal Year 2027: 80.0%
  - Fiscal Year 2028: 80.9%
  - Fiscal Year 2029: 85.0%

**Engagement**
- Improve employee survey score continuously (increase score compared to the previous survey) or achieve a score higher than the average of other companies in each region
  - Every survey: 1 from fiscal 2016 to fiscal 2023, the overall score increased by 18 points (18 points higher than the previous survey)
  - Japan: 99.6%
  - Overseas: higher than the industry average (90%) (for overseas)

**Caryers**
- We have created an environment where every employee can create value for the Company's growth and for society with the support of leaders and others, challenging themselves to do the things that will shape their own future (career path) and growing
  - Fiscal Year 2027: Achieved 90% target
  - Fiscal Year 2028: Achieved 95% target
  - Fiscal Year 2029: Achieved 100% target

**Work-life Balance**
- Annual paid leave utilization rate: Japan (95% (2023)): 95.2%
  - Overseas: basing to be better than the previous fiscal year’s result
  - 2027: 94.0%
  - 2028: 95.0%
  - 2029: 95.5%

**Supply-Chain Management**
- We are working to achieve 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 ensuring corporate value over the medium- to long-term sustainable growth.
  - Fiscal Year 2027: 73.7%
  - Fiscal Year 2028: 75.0%
  - Fiscal Year 2029: 75.0%

**Corporate Governance**
- We are building and further improving a highly-effective risk management system that supports a strong management foundation.
  - Fiscal Year 2027: Strengthened the Board of Directors to more than 10 members
  - Fiscal Year 2028: Strengthened the Board of Directors to more than 10 members
  - Fiscal Year 2029: Strengthened the Board of Directors to more than 10 members

**Risk Management**
- We are building and further improving a highly-effective risk management system that supports a strong management foundation.
  - Fiscal Year 2027: Strengthened the Board of Directors to more than 10 members
  - Fiscal Year 2028: Strengthened the Board of Directors to more than 10 members
  - Fiscal Year 2029: Strengthened the Board of Directors to more than 10 members

**TOKYO ELECTRON Integrated Report 2023**
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.

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 multi-layering, 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.

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.

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 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.
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.

**The Driving Forces of Growth Behind Our Company**

Abundant technological capabilities cultivated as an industry leader

Absolute trust from customers based on our reliable technical services

Challenging spirit of our employees, who are capable of flexibly and rapidly adapting to changes in the environment.

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**OUTCOME (created value) Fiscal 2023**

<table>
<thead>
<tr>
<th>Financial capital</th>
<th>Total assets</th>
<th>...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Sales</td>
<td>2,209.0 billion yen</td>
<td>...</td>
</tr>
<tr>
<td>Operating margin</td>
<td>28.0%</td>
<td>...</td>
</tr>
<tr>
<td>Net income</td>
<td>471.5 billion yen</td>
<td>...</td>
</tr>
<tr>
<td>ROE</td>
<td>32.3%</td>
<td>...</td>
</tr>
<tr>
<td>Total annual dividend</td>
<td>267.9 billion yen (payout ratio: 56.6%)</td>
<td></td>
</tr>
</tbody>
</table>

**Manufactured capital**

Cumulative equipment installations: Approximately 88,000 units

(annual shipment volume of approximately 6,000 units)

High-quality and high-reliability products incorporating leading-edge technologies

Safety-first operation: TCIR 0.33

Observing equipment delivery and installation schedules

**Intellectual capital**

Innovative, high-value-added unique technologies

Product lineup with No. 1 or No. 2 in market share

Solutions for key processes in semiconductor scaling

Number of patents owned 21,645

Highly efficient and high-quality service

**Human capital**

Retention rate** = 96.2% (global)

* Calculated using data from turnover rate

Improvement in ability for growth and demonstration of the challenge spirit in employees, who both create and fulfill company values

Building of relationships of trust with stakeholders by employees with a high level of engagement

Ratio of female managers = 5.7% (global)

* Includes female employees in the number of managers

**Social and relationship capital**

Percentage of respondents who selected “Very Satisfied” or “Satisfied” in the Customer Satisfaction Survey = 100%

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

Rate of improvement after supply chain sustainability assessment = 30.5% (fiscal 2022)

Creating employment opportunities in and paying taxes to local municipalities and nations where we carry out business activities:

Number of TEL FOR GOOD® programs = 194

* TEL FOR GOOD: The brand name for Tokyo Electron’s social contribution activities

**Natural capital**

Own CO₂ emissions (compared to fiscal 2019 reduction of 90 billions due to renewable energy use) = 76% reduction

CO₂ emissions not from our Group (per wafer) = 20.8% reduction (fiscal 2019)

Waste material recycling rate = 98.5%

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**INPUT (investment capital) Fiscal 2023**

<table>
<thead>
<tr>
<th>Financial capital</th>
<th>Total assets</th>
<th>...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net assets</td>
<td>1,599.5 billion yen</td>
<td>...</td>
</tr>
<tr>
<td>Equity ratio</td>
<td>68.7%</td>
<td>...</td>
</tr>
<tr>
<td>Total assets</td>
<td>2,311.5 billion yen</td>
<td></td>
</tr>
</tbody>
</table>

**Manufacturing capital**

Manufacturing sites (9 total: 6 in Japan and 3 overseas)

Manufacturing-related capital investment, such as new plant buildings and manufacturing equipment

Increasing of production capacity and leading edge

Many years of know-how and proven technologies

**Intellectual capital**

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

R&D investment 10,913 billion yen

A high level of expertise in numerous areas, and the ability to fuse this knowledge together to create new products

Broad-ranging knowledge and technological capabilities in semiconductor manufacturing processes

**Human capital**

Number of employees 17,204

Proportion of engineers 67.6% 

Personnel able to perform globally

Human resource development through TEL UNIVERSITY

**Social and relationship capital**

Relationship of mutual trust with customers built through many years of performance records

Solid partnerships with our suppliers

Foundation for business activities in local communities

**Natural capital**

Energy consumption 106,627kWh

Water consumption 1,495,000m³
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.

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

Value Provided to 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.

- Best Products incorporating leading-edge technologies
- High-value-added Best Technical Service
- Environmentally friendly products and services with a focus on safety and quality
- Solutions that satisfy a variety of application needs

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- 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
- 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

Value Provided to Stakeholders
**Value Creation by the Value Chain**

**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.

### Research and Development

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

**Differentiation Points**
- 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

**Overview**
- Establishment of stable production capabilities by building a sustainable supply chain
- Efficient manufacturing of high-quality, superior-reliability, 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

**Overview**
- 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

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

**Differentiation Points**
- Field engineers who are highly specialized and possess broad knowledge
- 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

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**Sustainability Initiatives in the Value Chain**

- Human Resources
- Human Rights
- Compliance
- Supply Chain Management
- Environment
- Safety
- Continuous Improvement of Business Operations and Creation of New Values
- Risk Management
- Information Security
- Engagement with Capital Markets
- Evaluation from Third-party Institutions
- Participation in Global Initiatives

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TOKYO ELECTRON Integrated Report 2023
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 and long-term plans and development strategies 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

**Sustainability Initiatives**

- Initiatives related to product environment
- Future-oriented development of environmental technologies through partnerships with suppliers
- Structure to promote innovative development that takes advantage of diversity
- Development efficiency improvement through the promotion of DX

**Risk Management Initiatives**

- 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
- 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
- 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 reduced product development capability or customer support quality
- 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
- 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
- Make continuous improvements to work environments and promote diverse work styles as well as health and productivity management

**Management Resources to Be Invested**

- **R&D investment**
  - Over five years, beginning in fiscal 2023
  - More than 1 trillion yen
  - (7 in Japan and 7 overseas)

- **R&D sites**
  - 14

- **Human resources possessing knowledge in a variety of specialized fields**

**Primary Management Indicators**

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

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1. 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).
2. The percentage of inventions filed in multiple countries among the number of filed inventions as patent applications.
3. Meets the previous year’s cost-cutting percentage goals (fiscal 2023) (Refer to the “Sustainability goals and results” on our website for details: www.tel.com/sustainability/goals-and-results/index.html)
Main Material Issues Initiatives

Strategically 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 technology 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 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 the 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 consortia and academic universities. These initiatives include development under CHIPS Act 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 efforts to build a strong network 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 AI, leading-edge logic and quantum computing. Collaboration is also underway with imec in the field of EUV and high-NA EUV 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 capability in the manufacturing process in the MRA(M) and 2D material-related research.

1) CHIPS Act: Creating Helpful Incentives to Production Act/Science Act to support investments in the USA in semiconductor development and mass production, IT, quantum computing, and communications technology
2) BRIDG: High-NA EUV: sciences and equipment. Semiconductor industry entry for an exposure technology that uses a specific wavelength of 13.5 nm high-reflection refers to next-generation high NA exposure technology that shortens the resolvable line width by increasing the numerical aperture (NA).

We are also promoting 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 applications on 47 inventions in the past two years. Consequently, the number of active issued patents as of March 31, 2023 is 25,649, 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 inventions 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.

The Use of Material 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 “material 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 AI enables innovative high-value-added development work that is not bound by conventional ideas or practices.
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.

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
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 Procurement 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 production 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 mutually-beneficial relationships and new cooperation beyond scale and industrial groupings of the entire supply chain and to adhere to a desirable practice for trades with suppliers. We will continue to strive to improve added values in the supply chain by conducting global operations in cooperation with our suppliers.

**Sustainable Procurement Strategies**

**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 2023. We also plan 4,000 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**
  - Tohoku Office Production Building
  - Began operations in July 2020

- **Tokyo Electron Technology Solutions**
  - Yamanashi Office Production Building
  - Began operations in August 2020

- **Tokyo Electron Miyagi**
  - Miyagi Technology Innovation Center
  - Began operations in October 2021

- **Tokyo Electron Technology Solutions**
  - Tohoku Production and Logistics Center (provisional name)
  - Completion scheduled for autumn 2023

Furthermore, we are working to improve IT infrastructure by building a manufacturing core system through beginning operations of ERP and MES that utilize the latest digital technologies, the introduction of PLM 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.

**Initiatives to Reduce Environmental Impact**

We are implementing a variety of environmentally conscious initiatives at our plants and offices as well as in logistics and the supply chain through the deployment of E-COMPASS.

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 classrooms, 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 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 CO₂ 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 CO₂ 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.”

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 cost-cutting. 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.

1 Refer to E-COMPASS on p. 51 and Initiatives with Suppliers on p. 53
2 Modal shift: Transferring from transportation by air and air to sea and by, which lowers environmental impacts.

Environmental Partners’ Ring
Initiatives in the Value Chain

Sales

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

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.

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

Chapter 3
Value Creation by the Value Chain

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 margin

Sustainability Initiatives

- Initiatives for improvement of customer satisfaction
- Ongoing efforts to ensure customer safety
- Reduction of CO2 emissions from product usage by addressing medium-term environmental goals
- Improvement of operational efficiency in sales activities

Risk Management Initiatives

<table>
<thead>
<tr>
<th>Item</th>
<th>Main Potential Risks</th>
<th>Main Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Fluctuations</td>
<td>A rapid contraction of the semiconductor market could lead to overproduction or an increase in dead inventory.</td>
<td>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.</td>
</tr>
<tr>
<td>Geopolitics</td>
<td>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.</td>
<td>Carefully monitor the international situation as well as the diplomatic and security measures and industrial policy trends in each country and region.</td>
</tr>
<tr>
<td>Information Security</td>
<td>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.</td>
<td>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.</td>
</tr>
</tbody>
</table>

1. Achieve evaluations of “Very Satisfied” or “Satisfied” for 100% of customer satisfaction survey responses (fiscal 2024).
2. Operating margin of 8% or more (by fiscal 2027).

P. 52
P. 56
P. 38
In the pursuit of higher speed, lower power consumption and lower cost semiconductor devices, 3D system integration in back-end processes is advancing. The 3D system integration requires cleaner process environments 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 are offering bonding and laser edge trimming equipment based on the technology and experience we have cultivated in front-end processes, and wafer probes to ensure KGD.

**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, IoT (Internet of Things), AI (Artificial Intelligence), autonomous mobility, green energy, IoT and Information (IoT & Information) 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 in flat panel displays (FPD) business to improve our technological innovation capabilities and seamless responsiveness to customers, and established the new DDS (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-ISE™ and UNITY™ Me, we plan to sell the reengineered equipment of the coater/developer in the future.

**Responsiveness**

To solve customers’ issues and contribute to the manufacture of semiconductor chips with guaranteed quality, including reliability, involving the use of hazardous chemicals or high-voltage electricity. 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.

**Providing Safety-related Information on Products to Customers**

We are committed to providing sufficient safety information on our products so that customers can safely use them. All our products come not only with a manual specific to the product specifications, but also a TEL Safety and Environmental Guidelines manual applicable to all our products. The TEL Safety and Environmental Guidelines manual is available in 12 languages* to ensure that customers around the world can understand the content accurately; it describes examples of potential risks associated 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.

**PDCA Cycle**

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.

**Initiatives for Improvement of Customer Satisfaction**

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

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 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.
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 AI, digital technology and knowledge management tools, and promote enhanced efficiency for our services to support the stable operation of various generations of equipment for a wide variety of applications.

By 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.

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**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

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**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**

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

**Risk Management Initiatives**

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<td>Safety</td>
<td>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.</td>
<td>- Based on the “Safety First” approach, implement inherently safe design with an awareness of risk reduction at the product development stage.</td>
</tr>
<tr>
<td>Quality</td>
<td>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.</td>
<td>- Promote continuous education on quality to employees and suppliers to establish a quality assurance system and a world-class service system.</td>
</tr>
<tr>
<td>Human Resources</td>
<td>The inability to recruit and retain necessary human resources on an ongoing basis or the inability to create an environment where people with diverse values and expertise can play an active role could lead to diminished product development capability or customer support quality.</td>
<td>- Make continuous improvements to work environments and promote diverse work styles as well as health and productivity management.</td>
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**Chapter 3**

Value Creation by the Value Chain

**Initiatives in the Value Chain**

**Installation and Maintenance Services**

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**TOKYO ELECTRON Integrated Report 2023**
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 number of personnel receiving this 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.

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.

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, 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™, a remote maintenance service, and smart glasses1 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.

Digital Enablers

Providing the Best Products, Best Technical Service

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

Global Expansion of Training for Customers

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 of 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.

1. LEAP: Lifecycle Extension and Availability Program

Step in DX activities

Analysis and prediction with digitalized data

1. Resolution of high value problem
2. Quality
3. Cost
4. Speed
5. Productivity
6. Energy consumption

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 of 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.

1. LEAP: Lifecycle Extension and Availability Program
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

- 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 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 management employees working together as one, our flexible and rapid response to environmental change, and fully harnessing our potential. We conduct a range of activities to promote the TEL Values, including distributing a booklet in multiple languages, messages from 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 of taking on new challenges without fear of failure, and departments and Group companies collaborating to address issues. In our new employee training, we aim to, encourage understanding and practice of TEL Values from the moment someone joins us. We do this in a number of ways, including talks from management, consideration of action plans through group work and discussion of what type of company we want TEL to become. The TEL Values are important sets of values that we want to pass down to future generations, so our employees around the world to put these values into practice

Metrics and Targets

- Set key indicators for continuous corporate value enhancement and annual sustainability goals in our Medium-term Management Plan
- The results and status of the achievement of key indicators and annual goals are reviewed at the annual review meeting
- Implementation of company-wide activities to achieve each indicator and goal under the persons responsible for each indicator and goal

Human Resources

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

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

TEL Values

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—proud, challenge, ownership, teamwork and awareness—are being put into practice, as representing our original approach to management and employees working together as one, our flexible and rapid response to environmental change, and fully harnessing our potential. We conduct a range of activities to promote the TEL Values, including distributing a booklet in multiple languages, messages from 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 of taking on new challenges without fear of failure, and departments and Group companies collaborating to address issues. In our new employee training, we aim to, encourage understanding and practice of TEL Values from the moment someone joins us. We do this in a number of ways, including talks from management, consideration of action plans through group work and discussion of what type of company we want TEL to become. The TEL Values are important sets of values that we want to pass down to future generations, so our employees around the world to put these values into practice.

Motivation-oriented Management

We operate in 83 sites in 18 countries and regions. We believe it is important for human resources with different cultural backgrounds, experiences and attributes to share values and work together as one toward value creation. We believe that each of our employees, maintaining a high level of engagement and demonstrating their full potential, will lead directly to our growth as a company. Accordingly, we practice motivation-oriented management. Specifically, we are implementing important measures in line with the following five points:

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

Diversity, Equity and Inclusion (DE&I)

With the strong commitment of management, 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 of each region.

- 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 to 8.0% globally and 5.0% in Japan (by fiscal 2027)

Free Points for Motivation-oriented Management

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

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

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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 in each region
- Create an organizational structure where women from other countries of Japan can take on corporate roles through the use of technology and shared global human resource systems
- We promote collaborations between Japanese employees and employees of overseas subsidiaries, and cross-departmental projects
- We organize events such as “DE&I Talks” and other events with external 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

**Note:**
- The ratio of female managers is based on the number of employees.
- The ratio of female managers in Japan is based on the number of employees in Japan, not including overseas subsidiaries.
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 continuously driving motivation-oriented management, while improving diversity through our 3G policy, we aim to grow the company.’ Guest speakers also helped deepen our understanding of DE&I, with one speaker titled ‘The Importance of Equity: World Trends & to DE&I’ and another titled ‘Corporate Transformation through Diversity 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 Development Workshops for Women. 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 in classes taught by self-centered career development and personal strength-based leadership, etc.

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 situation 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 and support for 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 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, staying at 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.

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, 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 growth, career 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.

Overview of TEL UNIVERSITY

Global and On-demand Learning

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 allows 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 2022 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 innovation ideas.

Leave System

We believe that employees are more productive when they can properly balance their work and life 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.
**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 our business activities, but also to respect those people who support our business activities.

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


In April 2023, we revised our Tokyo Electron Group Human Rights Policy 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 determined 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.

**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 6,800 suppliers involved in materials, staffing, customs services, packaging, etc. Consequently, potential/actual risks were found in 71% 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 the like.

**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 allows direct consultation with an outside law firm. Through these measures, we have developed grievance mechanisms that are able to deal reliably with grievances which could have negative impacts on human rights.

**Compliance**

We 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 foster 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 law. We have also carried out compliance training for managers, which included coverage of prevention of harassment and the importance of establishing an appropriate workplace environment.

In fiscal 2023, a total of 130 reports and consultations were received via the internal reporting system, of which 79 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. These efforts have contributed to the necessary remediation activities together with our suppliers. Going forward, we will further promote compliance with industry codes of conduct through having our major manufacturing sites undergo similar audits, including those located overseas, and 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.

Breakdown of Report/Consultation Contents

- Compliance Department
- Legal Compliance Division of each Overseas Subsidiary
- CCO/Entertainment 3%
- Company asset 2%
- Sexual harassment 2%
- Information security/intellectual property 4%
- Safety/Environment 1%
- Use of force 0%
- Workplace violence 30%
- Sexual violence 10%
- Other 26%

Fiscal 2023

Reporting System

- Request for investigation/consultation
- Request for advice concerning communication with management and within the workplace
- Openers on the empowerment of women
- Proposals for human resources policies
- Proposals for improving operations
- Request for a meeting
- Request for an explanation
- Request for advice on the use of force
- Requests for advice concerning communication with management and within the workplace
- fps: Customer Relations
- Other

Suppliers' Contribution to Value Creation

We provide feedback to suppliers on 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 suppliers, included staffing and logistics suppliers in the scope of surveys.

In fiscal 2023, we had Tokyo Electron Technology Solutions (Yamashita), 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 major manufacturing sites undergo similar audits, including those located overseas, and expand sustainability initiatives throughout the supply chain.

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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 driving 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 track our supplier's 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 suppliers, included staffing and logistics suppliers in the scope of surveys.

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Responsible Procurement of Minerals (Conflict Minerals)

We see taking action against conflict minerals (3TG1) 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 CMRT2 and referring to the OECD3 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 conforming to RMAP4 (one of the standards used for determining that minerals are not connected with conflict). In addition, none of the materials we procured were found to contain 3TG involved in conflict.

Procurement BCP

As part of our business continuity plans (BCPs), we collaborate with suppliers on ongoing disaster preparation. We maintain a database of suppliers’ production sites so that if a crisis arises, we can promptly identify impacted suppliers and quickly collaborate in recovery efforts. 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.
Value Creation by the Value Chain

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 environment-focused 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 following three perspectives:

• Pursuing higher performance and lower power consumption in semiconductors
• Achieving both the process performance and environmental performance of equipment
• Reduction of CO2 emissions in all business activities

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 status 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.

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

CO2 Emissions across the Value Chain

Based on our environmental slogan “Technology for Eco Life,” we aim to resolve environmental problems through leading technology and reliable services, understand the environmental impact generated throughout our entire value chain and promote business activities to reduce that impact. Our total CO2 emissions of Scope 1 and Scope 2 is 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, CO2 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 CO2 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.

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

Main initiatives: Energy saving/creation, recycling, alternative energy, renewable energy use, emissions trading, etc.

Scope 3 Emissions not from our Group

<table>
<thead>
<tr>
<th>Products</th>
<th>30% reduction*</th>
<th>Products</th>
<th>50% reduction*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in CO2 emissions through the Introduction of Renewable Energy</td>
<td></td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Zero</th>
<th>Reductions in CO2 Emissions through the Introduction of Renewable Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-3 (Base year)</td>
<td>174</td>
<td>190</td>
</tr>
<tr>
<td>2022-3</td>
<td>25</td>
<td>42</td>
</tr>
<tr>
<td>2023-3</td>
<td>91</td>
<td>60</td>
</tr>
<tr>
<td>2023 (Goal)</td>
<td>100</td>
<td>91</td>
</tr>
</tbody>
</table>

Initiatives Concerning Own Emissions (Scope 1 and 2)

We aim to achieve a rate of 100% renewable energy usage and reduce total CO2 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 9% in fiscal 2022. As a result of this, and assisted also by energy-saving activities, we have reduced total CO2 emissions from our plants and offices by 76%, enabling us to reach our target ahead of schedule.
Initiatives Concerning Emissions Not from Our Group (Scope 3)

We aim to reduce per-wafer CO2 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 CO2 emissions had been reduced by 20.8% compared to the baseline period.

<table>
<thead>
<tr>
<th>CO2 Emissions Reductions of Products (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.7</td>
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<tr>
<td>20.8</td>
</tr>
<tr>
<td>30</td>
</tr>
</tbody>
</table>

Logistics Initiatives

In fiscal 2023, we proactively made progress with the adoption of reinforced corrigated cardboard packaging and with bringing about modal shifts in transportation. Reinforced corrugated cardboard is lighter in weight, which is expected to reduce CO2 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, CO2 emissions from logistics were reduced by 14% as a result of modal shifts.

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 have 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 CO2 sinks.

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 iLithium™ LA, 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.

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

<table>
<thead>
<tr>
<th>Items</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>We have established the Environment Promotion Department and the Corporate Sustainability Management Department at our headquarters, and are pursuing initiatives for the TCFD under the entire Group</td>
</tr>
<tr>
<td>Strategy</td>
<td>Our responses to climate-related risks and opportunities and progress towards our goals have been deliberated at the Sustainability Committee, and approved at the Corporate Officers Meeting attended by the CEO</td>
</tr>
<tr>
<td>Risk Management</td>
<td>We are conducting analysis that takes into account the following points in order to identify medium- to long-term risks and opportunities that climate change poses to our business</td>
</tr>
<tr>
<td>Metrics and Targets</td>
<td>We have utilized enterprise risk management to identify a wide range of risks arising in business activities, and have classified “Environmental issues” including climate change as a key risk having high impact and probability of manifestation, and developed initiatives relating to this risk</td>
</tr>
<tr>
<td></td>
<td>We have formulated and executed measures to minimize the risks of these “Environmental issues,” and are monitoring the effect of said measures, working to understand the status of risk control and implementing the PDCA cycle for management</td>
</tr>
<tr>
<td></td>
<td>Short-, medium- and long-term company-wide risk management initiatives that are recommended by relevant divisions and councils are being undertaken at the facilities and divisions of the Group companies, after approval by the Manufacturing Companies Presidents’ Council, which includes the corporate director in charge of the environment</td>
</tr>
<tr>
<td></td>
<td>For Scope 1 and 2 CO2 emissions, in addition to implementing measures to reduce CO2 emissions at our key manufacturing sites in Japan with high emissions, we are pursuing the adoption of renewable energy on a global scale</td>
</tr>
<tr>
<td></td>
<td>For Scope 3, we are focusing on the development of a data-driven society and preserving the global environment across the entire supply chain</td>
</tr>
<tr>
<td></td>
<td>We are pursuing E-COMPASS initiatives to help develop a data-driven society and preserve the global environment across the entire supply chain</td>
</tr>
<tr>
<td></td>
<td>We are improving performance in both process performance and environmental performance for semiconductor production equipment</td>
</tr>
<tr>
<td></td>
<td>We are reducing CO2 emissions in all of our business activities</td>
</tr>
<tr>
<td></td>
<td>Initiatives for our medium- and long-term environmental goals</td>
</tr>
</tbody>
</table>

Notes:

1. 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
2. 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 compile greenhouse gas emission reduction targets set by companies for the next five to 15 years, consistent with the levels required by the Paris Agreement
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Chapter 3
Value Creation by the Value Chain

Anticipated Risks and Opportunities of Climate Change Impact

<table>
<thead>
<tr>
<th>Risks related to climate change</th>
<th>Role of the Environment</th>
<th>Anticipated Risks</th>
<th>Impact on the Tokyo Electron</th>
<th>Our Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon tax and energy costs</td>
<td>Short to medium term</td>
<td>Increased fuel costs</td>
<td>Low</td>
<td><strong>Carbon tax</strong> and energy costs: Short to medium term, the impact on the Tokyo Electron will be increased. Carbon tax (FY 2023: approx. 0.750 yen/1-CO2) and CO2 emissions (approx. 665 yen/1-CO2) are expected to increase.</td>
</tr>
<tr>
<td><strong>Risks</strong></td>
<td><strong>TOKYO ELECTRON Integrated Report 2023</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Value Creation by the Value Chain</strong></td>
<td><strong>Chapter 3</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Transition risks (10-25% scenario)</strong></td>
<td><strong>Responses to environmental challenges including climate change and environmental regulations</strong></td>
<td><strong>Anticipated Risks</strong></td>
<td><strong>Impact on the Tokyo Electron</strong></td>
<td><strong>Our Response</strong></td>
</tr>
<tr>
<td><strong>Abnormal weather</strong></td>
<td><strong>Short to medium term</strong></td>
<td><strong>Impacts on our customers and suppliers.</strong></td>
<td><strong>High</strong></td>
<td><strong>Abnormal weather:</strong> Short to medium term, the impact on the Tokyo Electron will be increased.</td>
</tr>
<tr>
<td><strong>Higher temperatures</strong></td>
<td><strong>Medium to long term</strong></td>
<td><strong>Increased usage of air conditioning and fluids in clean rooms and other high temperature operations.</strong></td>
<td><strong>Low</strong></td>
<td><strong>Higher temperatures:</strong> Medium to long term, the impact on the Tokyo Electron will be increased.</td>
</tr>
<tr>
<td><strong>Improved operational efficiency induced by the environment</strong></td>
<td><strong>Short to medium term</strong></td>
<td><strong>Shorter production cycles and labor productivity improvements.</strong></td>
<td><strong>High</strong></td>
<td><strong>Improved operational efficiency induced by the environment:</strong> Short to medium term, the impact on the Tokyo Electron will be increased.</td>
</tr>
<tr>
<td><strong>Building resilience in our global operations</strong></td>
<td><strong>Short to medium term</strong></td>
<td><strong>Promote innovation toward development, manufacturing, and services.</strong></td>
<td><strong>High</strong></td>
<td><strong>Building resilience in our global operations:</strong> Short to medium term, the impact on the Tokyo Electron will be increased.</td>
</tr>
</tbody>
</table>

**Risk Evaluation:** TSK-E 08/16

**Carbon tax:** The carbon tax is imposed on energy (electricity, fuel, etc.) consumed in Japan as of FY 2022, and the tax paid will be approximately 0.750 yen per ton of CO2. The amount of carbon tax will increase with the amount of CO2 emissions.

**Future challenges:** Under the Influences of Changes in the Environment, we are taking steps to improve the operational efficiency of our production sites and equipment. Our goal is to achieve a decrease in CO2 emissions by 2030, which will require us to implement various initiatives to reduce our environmental impact.

**Impact on the Tokyo Electron:** We are taking steps to improve the operational efficiency of our production sites and equipment. Our goal is to achieve a decrease in CO2 emissions by 2030, which will require us to implement various initiatives to reduce our environmental impact.
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 2022, the headquarters has been recognized as a DX-certified business operator under the Digital Transformation (DX) Certification initiative established by the Ministry of Economy, Trade, and Industry.

Continuous Improvement of Business Operations
We are implementing a new enterprise system (ERP) to further improve productivity and quality. This system is operated across the entire Group, including manufacturing sites, and is one of the key processes of our business. 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.

The system is operated across the entire Group, including manufacturing sites, and is one of the key processes of our business. 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.


digital transformation certification

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

Overview of the New Enterprise System

ERP (Sales, Inventory, Accounting)

- ERP: Enterprise Resource Planning. A system that integrates the core business operations of an enterprise, such as accounting, procurement, production, logistics and sales, for better efficiency and centered information.
Changes in Corporate Governance (Since CY1998)

<table>
<thead>
<tr>
<th>Year</th>
<th>Outside Directors</th>
<th>Outside Directors (Female)</th>
<th>Outside Directors (Nationals)</th>
<th>Corporate Officers</th>
<th>Total Number of Meetings</th>
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<td>Three</td>
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<td>2020</td>
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<td>2021</td>
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<tr>
<td>2022</td>
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<td>11</td>
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<tr>
<td>2023</td>
<td>Three</td>
<td>Three</td>
<td>Three</td>
<td>Three</td>
<td>11</td>
</tr>
</tbody>
</table>

Advanced Initiatives Taken Ahead of Other Companies

- 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

Characteristics of Our Corporate Governance

A Board of Directors that is Independent and Diverse

- Outside directors make up half of our corporate 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 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

Corporate Governance Framework

Chapter 3

Value Creation by the Value Chain

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 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/
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

**Basic Policy on Director 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 consists of “fixed basic compensation” and “non-performance-linked compensation (stock-based compensation).”

**Type of Compensation**

<table>
<thead>
<tr>
<th>Type of Compensation</th>
<th>Recipient</th>
<th>Overview of Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Basic Compensation</td>
<td>Inside Directors</td>
<td>Monthly compensation is determined within the limit of total fixed basic compensation, which has been resolved at the Shareholders’ Meetings.</td>
</tr>
<tr>
<td>Annual Performance-linked Compensation</td>
<td>Inside Directors</td>
<td>Amount of bonus is determined by evaluating the performance level at the end of the fiscal year.</td>
</tr>
<tr>
<td>Stock Compensation-based Stock Options</td>
<td>Inside Directors</td>
<td>Report on stock options: No policy is in place for the payout proportion of fixed basic compensation.</td>
</tr>
<tr>
<td>Non-performance-linked Compensation</td>
<td>Outside Directors, Supervisory Board members</td>
<td>Reports on status of the Nomination Committee and reports on compensation for Audit &amp; Supervisory Board members.</td>
</tr>
</tbody>
</table>

**Calculation Method for Medium-term Performance-linked Compensation**

- TEL share is allocated per point, in line with the share delivery points calculated by the following formula:

\[
\text{Share delivery point} = \text{TEL share} \times \left( \frac{\text{Reference points} \times \text{Consolidated operating margin}}{100} \right) \times \left( \frac{\text{Consolidated ROE}}{100} \right)
\]

- Indicators:
  - **Consolidated operating margin:**\(\times 70\%\)
  - **Consolidated ROE:**\(\times 30\%\)
  - **Reference points:** (set according to the scale of job responsibilities)
  - **Consolidated operating margin attainment factor:**\(\times 70\%\)
  - **Consolidated ROE attainment factor:**\(\times 30\%\)

- 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 Miyage Technology Innovation Center and other sites at Tokyo Electron-Miyage, where they developed a deeper understanding of the operations while also engaging in dialogue with employees on-site.

- 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.

- Profit-sharing type compensation with medium-term performance improvement is paid to motivating recipients to contribute to improving business performance in each fiscal year and to increasing corporate value over the medium- to long-term.

- Payment amounts are 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).

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

- **CEO**
  - Annual Performance-linked Compensation
  - Reports on status of business execution by CEO (each meeting)
  - Business strategy, capital policy, and human resource strategies
  - Reports on internal audits
  - Shareholders’ Meeting

- **Risk/Compliance**
  - Reports on general and business risk management
  - Reports on general and business risk management
  - Reports on internal audits

- **Governance**
  - Reports on sustainability
  - Reports on general and business risk management
  - Reports on general and business risk management
  - Reports on internal audits
  - Status of investment targets and cross-shareholdings
  - Status of Shareholders’ Meeting

- **Medium-term Growth Strategies**
  - Business strategy, capital policy, and human resource strategies
  - Reports on internal audits
  - Shareholders’ Meeting

- **Strategic Management**
  - Reports on general and business risk management
  - Reports on general and business risk management
  - Reports on internal audits

- **Operational and Reporting**
  - Reports on general and business risk management
  - Reports on general and business risk management
  - Reports on internal audits

**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, while 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.

**Chapter 3**

**Value Creation by the Value Chain**

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
Value Creation by the Value Chain

Chapter 3

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)

Process

1. 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 Meetings
   - 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
   - All 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 deliberation and action toward 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 “non-hierarchical, 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

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 (2) 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 swifter 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 to 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 gained 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.

Yoshikazu Nunokawa
Chairman of the Board of Directors

63 TOKYO ELECTRON Integrated Report 2023

64 TOKYO ELECTRON Integrated Report 2023
Chapter 3

Value Creation by the Value Chain

Skills Matrix

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Expected Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toshiki Kawai</td>
<td>Corporate Management</td>
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<td></td>
<td>Semiconductor Markets</td>
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<td></td>
<td>Manufacturing/Development</td>
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<td>Sales/Marketing</td>
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<td>Finance, Accounting/Engagement</td>
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<td>with Capital Markets</td>
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<td>Sadao Sasaki</td>
<td>Corporate Management</td>
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<td>Semiconductor Markets</td>
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<td>Kazushi Tahara</td>
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<td>with Capital Markets</td>
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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

Expected Skills of Corporate Directors and Audit & Supervisory Board Members (Unit: persons)

<table>
<thead>
<tr>
<th></th>
<th>Corporate Management</th>
<th>Semiconductor Markets</th>
<th>Manufacturing/Development</th>
<th>Sales/Marketing</th>
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</table>

Independence and Diversity of Corporate Directors (Unit: persons)

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<tr>
<th></th>
<th>Independent Outside Directors</th>
<th>Female Corporate Directors</th>
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<tbody>
<tr>
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<td>3/6</td>
<td>2/6</td>
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</tbody>
</table>

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

Directors

Toshiki Kawai
Representative Director
President & CEO
Corporate Officer

Sadao Sasaki
Representative Director
Senior Executive Vice President
Corporate Officer

Yoshikazu Nunokawa
Corporate Director
Chairman of the Board of Directors

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

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

Sachiko Ichikawa
Outside Director
Partner, Tanabe & Partners

Audit & Supervisory Board Members

Yutaka Nanasawa
Audit & Supervisory Board Member

Kazushi Tahara
Audit & Supervisory Board Member

Kyosuke Wagai
Outside Audit & Supervisory Board Member

Masataka Hama
Outside Audit & Supervisory Board Member

Ryota Miura
Outside Audit & Supervisory Board Member

Corporate Officers

Tatsuya Nagakubo
Corporate Officer

Seiisu Ikeda
Corporate Officer

Yoshinobu Mitano
Corporate Officer

Takeshi Okubo
Corporate Officer
As for future challenges, I believe it is important to stay ahead of the times and take an overarching approach to the very nature of the entire supply chain, procurement, product competitiveness and manufacturing sites as specific challenges related to medium- to 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 the past 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.

How would you rate the 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. 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 comprehensive 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 R&D expenses with this in mind. To enhance our development capabilities to a level that overshadows our competitors, we need to create mechanisms for even faster development with a focus on enhancing our planning and front-line capabilities.

Although product supplies were unaffected by the pandemic, we also need to further strengthen our supply chains through such things as commodification 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.

As for future challenges, I believe it is important to stay ahead of the times and take an overarching approach to the very nature of the entire supply chain, procurement, product competitiveness and manufacturing sites as specific challenges related to medium- to 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.

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Roles 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
- 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
- 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
- Activities of the Compensation Committee in Fiscal 2023
- Discussed the compensation system and process
- Determined the medium-term performance-linked compensation plan for 2023
- 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
- As for future challenges, I believe it is important to stay ahead of the times and take an overarching approach to the very nature of the entire supply chain, procurement, product competitiveness and manufacturing sites as specific challenges related to medium- to 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.

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### 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.

#### Risk Management System
We have established the organization to oversee the entire Group at our headquarters and carry out enterprise risk management1 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 Group-wide risk awareness, formulating and monitoring the implementation of measures to reduce material risks, and reinforcing the PDCA cycle through discussions at major internal management through measures such as regular education and long-term perspective, going a step further than its conventional Risk Management System particularly material risks at the Corporate Officers Meeting and the Board of Directors and other important meetings, and appropriately adjust capital investments, personnel inventory planning and other aspects of business.

#### Risk Management Initiatives

<table>
<thead>
<tr>
<th>Initiate</th>
<th>1. Enterprise risk management: Group-wide systems and processes related to risk management activities.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>Integrate enterprise risk management into decision-making as a comprehensive risk management system.</td>
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<tr>
<td></td>
<td>Promote forward-looking risk management initiatives for each identified risk even further.</td>
</tr>
</tbody>
</table>

1. Enterprise risk management: Group-wide systems and processes related to risk management activities.

### 12 Risks

<table>
<thead>
<tr>
<th>Risk</th>
<th>Inherent Potential Risks</th>
<th>Mitigating Risk Management Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Fluctuations</td>
<td>A rapid contraction of the semiconductor market could lead to overproduction or a decrease in demand.</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td>A share increase in demand could lead to an inability to supply customers with products in a timely manner, resulting in loss opportunities.</td>
<td>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 widening of customer bases.</td>
</tr>
<tr>
<td>Research and Development</td>
<td>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.</td>
<td>Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division.</td>
</tr>
<tr>
<td>Geopolitics</td>
<td>Geopolitical tensions could undermine the international order and global macroeconomic conditions, affecting national and regional security, foreign industrial or environmental policy.</td>
<td>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.</td>
</tr>
<tr>
<td>Procurement, Production and Supply</td>
<td>Interruptions in the Company’s production due to a natural disaster or delay 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.</td>
<td>Formulate BCP, develop alternate production capabilities, promote the semiconductor industry as a key industry and business and consider countermeasures in advance.</td>
</tr>
<tr>
<td>Safety</td>
<td>Safety problems with the Company’s products or severe 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.</td>
<td>Based on the “Safety First” approach, implement inherently safe design with an awareness of risk reduction at the product development stage.</td>
</tr>
<tr>
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<td>Implement company-wide efforts such as promoting safety education tailored to each employee’s job and developing an incident reporting system.</td>
</tr>
<tr>
<td>Quality</td>
<td>The occurrence of a product defect could lead to liability for damages, costs for countermeasures and a decline in the Group’s brand and visibility.</td>
<td>Promote continuous education on quality to employees and suppliers to establish a quality assurance system and a world-class system.</td>
</tr>
<tr>
<td>Environmental Issues</td>
<td>The inability to respond appropriately to each country’s environmental policies, increasing 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.</td>
<td>Reduce technical issues from the product development and design stage.</td>
</tr>
<tr>
<td>Laws and Regulations</td>
<td>Violations of the laws and regulations of the countries and regions in which the Company operates could lead to diminished public confidence in the Company, fines, liability for damages or restrictions on business activities.</td>
<td>Thoroughly investigate the cause of any defects and implement measures to guard against similar defects in the future.</td>
</tr>
<tr>
<td>Intellectual Property Rights</td>
<td>The inability to obtain exclusive rights to proprietary technologies could lead to reduced product competitiveness.</td>
<td>Provide high-quality next-generation products ahead of competitors by not only continuously monitoring other companies’ patents but also establishing a system to take appropriate measures in cooperation with the business and R&amp;D divisions.</td>
</tr>
<tr>
<td>Information Security</td>
<td>Breaches of information or the suspension of services due to unauthorized access by cyberattacks against the Company or suppliers, natural disasters or other factors could lead to diminished public confidence in the Company or liability for damages.</td>
<td>Establish a dedicated security organization and establish an information security system that conforms to international standards by having security assessments conducted by external experts.</td>
</tr>
<tr>
<td>Human Resources</td>
<td>The inability to recruit and retain necessary human resources on an ongoing basis or the inability to create an advanced work environment in which industry experts and industry-leading talent can play an active role could lead to diminished product development capability and customer support quality.</td>
<td>Establish globally standardized rules and regulations for information management and implement response guidelines.</td>
</tr>
<tr>
<td>Other Risks</td>
<td>The global and regional political landscape, economic environment, financial and stock markets, foreign exchange, fluctuations, infectious diseases and natural disasters such as earthquakes, pandemics, and floods, among other factors, could cause the Company’s business activities to stagnate and the global economy to deteriorate.</td>
<td>Reduce and mitigate the risk of infectious diseases and natural disasters.</td>
</tr>
</tbody>
</table>

1. Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division.

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.
Chapter 3
Value Creation by the Value Chain

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

We regularly verify and review our global information security systems, 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.

Information Security Management

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 plants that support our business activities are operating safely and stably while maintaining QCD. 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 checks 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 for systems-related aspects twice a year and are developing improvement activities on an ongoing basis.

Response to Security Threats

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 for systems-related aspects twice a year and are developing improvement activities on an ongoing basis.

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 announcements 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 more frequent and deeper discussions with our investors. As part of the SR activities, each company executes 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 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

- Broadcasting using simultaneous interpretation and subtitles

Press Releases

- Broadcasting of archives from announcements/conferences within one business day, disclosure of Q&A within two business days

Shareholders’ Meeting

- Posting of conviction notices on the website and dispatch of conviction notices at an early stage

Disclosure of Material IR-related Information

- Consolidated Financial Statements, Integrated Report, Fact Book (each once per year)
- Quarterly Report, Earnings Release, Financial Announcement Materials, Corporate Update (each 4 times/year)

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 Indexes, Euronext Vigeo World 120 Index and STOXX Global ESG Leaders indexes. In fiscal 2023, we were selected under the Bloomberg Gender-Equality Index (GEI) and evaluated as a low-risk company in Sustainalytics’ ESG Risk Ratings, 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 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.

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

* Refer to “Third-party recognition” on our website for the listing of the various evaluations:
www.tokinelec.co.jp/sustainability/evaluation.html
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* Our Group companies in Japan have been certified under this program since 2019.
**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 server 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 advance 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.

**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.

**TSV TEL’s Shared Value**

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

"A company filled with dreams and vitality that contributes to technological innovation in semiconductors"
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 accompanying the expansion of information and communication technology and efforts to create a decarbonized society.

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 to account for 89.1% of total sales. Domestic net sales increased 4.2% from the end of the previous fiscal year, to ¥1,931.5 billion yen. As a result, total assets increased by ¥471.7 billion yen from the end of the previous fiscal year, to ¥2,311.5 billion yen.

Current liabilities increased by ¥163.1 billion yen from the end of the previous fiscal year, to ¥2,115.3 billion yen. This was largely due to an increase of ¥188.6 billion yen in long-term debts. A decrease of ¥3.9 billion yen in income taxes payable.

Long-term liabilities increased by ¥3.3 billion yen from the end of the previous fiscal year, to ¥282.1 billion yen. Net assets increased by ¥252.4 billion yen from the end of the previous fiscal year, to ¥1,999.5 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 ¥13.1 billion yen in net unrealized gains on investment securities. As a result, the equity ratio was 66.7%.

Cash Flows

Cash and cash equivalents at the end of fiscal 2023 increased by ¥368.6 billion yen compared to the end of the previous fiscal year, to ¥2,243.8 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 ¥471.5 billion yen, an increase of 0.108.1 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 payments of income taxes, and a ¥173.4 billion yen increase in inventories.

Cash flows from investing activities were negative ¥417.5 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 ¥107.2 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.

Fiscal 2023 (Fiscal year ended March 31, 2023)

The name of the customer includes sales to the customer and its subsidiaries. The amount includes sales to third parties.

<table>
<thead>
<tr>
<th>Name of customer</th>
<th>Sales (Billions of yen)</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samsung Electronics Co., Ltd.</td>
<td>312,279</td>
<td>15.6</td>
</tr>
<tr>
<td>Total Corporation</td>
<td>303,082</td>
<td>15.2</td>
</tr>
<tr>
<td>Taiwan Semiconductor Manufacturing Company Ltd</td>
<td>231,191</td>
<td>12.2</td>
</tr>
</tbody>
</table>

Financial Conditions

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Total assets (Billions of yen)</th>
<th>Total current assets (Billions of yen)</th>
<th>Cash Flows (Billions of yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023.3</td>
<td>1,894.457</td>
<td>1,408.703</td>
<td>426.2</td>
</tr>
<tr>
<td>2022.3</td>
<td>1,740.959</td>
<td>1,240.673</td>
<td>417.5</td>
</tr>
<tr>
<td>2021.3</td>
<td>1,425.364</td>
<td>1,015.696</td>
<td>417.5</td>
</tr>
<tr>
<td>2020.3</td>
<td>1,278.495</td>
<td>965.484</td>
<td>426.2</td>
</tr>
<tr>
<td>2019.3</td>
<td>1,024.562</td>
<td>815.930</td>
<td>417.5</td>
</tr>
</tbody>
</table>

Cash Flows

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Cash flows from operating activities (Billions of yen)</th>
<th>Cash flows from investing activities (Billions of yen)</th>
<th>Cash flows from financing activities (Billions of yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2023.3</td>
<td>1,895.720</td>
<td>253.117</td>
<td>1,458.88</td>
</tr>
<tr>
<td>2022.3</td>
<td>1,430.336</td>
<td>227.146</td>
<td>1,203.190</td>
</tr>
<tr>
<td>2021.3</td>
<td>1,127.440</td>
<td>207.313</td>
<td>917.127</td>
</tr>
<tr>
<td>2020.3</td>
<td>900.336</td>
<td>207.313</td>
<td>702.023</td>
</tr>
<tr>
<td>2019.3</td>
<td>600.082</td>
<td>207.313</td>
<td>392.769</td>
</tr>
</tbody>
</table>
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 677.3 billion yen, an increase of 31% 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 higher 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 1,911 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 net income attributable to owners of parent company, backed by favorable semiconductor production equipment market conditions.

As capital investment for large-sized LCD panels for televisions has peaked in the previous fiscal year, but this was mainly due to a rise in the ratio of fixed costs as a result of 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 larger-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 10.0 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 471.5 billion yen from the end of the previous fiscal year. This was mainly due to the increase in cash and cash equivalents, 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 215.6 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 390.1 billion yen, an increase of 33.8 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 307 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 10.8 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 investments 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 30% 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%.

For the details of financial data, please refer to the “Consolidated Financial Statements” on the Company’s website.

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.

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.

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 standard.

Capital expenditures only represent the gross increase in property, plant and equipment.

Overseas sales 14,746,411 1,969,088
Net income (loss) attributable to owners of parent 1,347,048 1,024,562

Basic earnings per share (yen) $ 7.55 ¥ 1,007.82
Diluted earnings per share (yen) 7.75 ¥ 1,033.86

ROE 32.3 37.2
Operating margin 28.0 29.9
Equity ratio 68.7 70.5

Total asset turnover (times) 1.05 1.21

Net sales per employee (yen) ¥ 931.30 ¥ 517.76

Note: 1 Shares of less than one thousand have been rounded down in the “Number of shares held” field.

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

Incentive Plan (BIP) trust account and the share-delivering Employee Stock Ownership Plan (ESOP).

The Master Trust Bank of Japan, Ltd. (trust account) 42,310 27.02
Custody Bank of Japan, Ltd. (trust account) 3,356,918 36.93

Note: The Company implemented a 3-for-1 common stock split as of April 1, 2023. The net effect 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.
Sustainability Data

Environmental

Greenhouse Gas Emissions

Scope 1 emissions
- Japan: 24, 28, 29, 16, 22
- Overseas: 7, 10, 10, 10, 10

Scope 2 emissions
- Japan: 15, 16, 17, 4, 10
- Overseas: 0.7, 0.2, 0.1, 0.7, 3.4
- Japan: 8.5, 20.6, 13.2, 13.1, 5.6
- Japan: 5.1, 5.0, 3.1, 1.4, 1.2
- Japan: 0.3, 0.4, 0.6, 0.4, 0.2

Scope 3 emissions
- Japan: 125, 118, 128, 55, 0
- Overseas: 30, 26, 29, 19, 20
- Japan: 156, 156, 169, 168, 180
- Japan: 125, 129, 138, 136, 144
- Overseas: 10, 26, 31, 33, 36

Energy Consumption/Generation

Resource Consumption

Energy Consumption/Generation

Energy
- Consumption (thousand m3)
  - Japan: 1,240, 1,305, 1,197, 1,197, 1,177
  - Overseas: 1,177, 1,143, 1,183, 1,124, 1,124
- Consumption (crude equivalent) (kt)
  - Japan: 85,977, 70,642, 78,112, 82,123, 87,123
  - Overseas: 100,263, 100,263, 100,263

Water
- Consumption
  - Japan: 363, 390, 410, 440, 440
  - Overseas: 422, 411, 450, 479, 520
- Tap water
  - Japan: 269, 297, 303, 285, 333
  - Overseas: 186, 207, 214, 213, 240

Copier paper
- Use (t)
  - Japan: 165, 132, 38, 32, 138

Environmental Impact of Logistics

CO2
- Emissions (kt-CO2)
  - Japan: 63, 57, 55, 55, 55
  - Overseas: 55, 55, 55, 55, 55

Proportion of marine transportation (international) (%)
- Japan: 80, 90, 80, 121, 120

Use of recycled cardboard
- Reduction in amount of wooden packaging materials used (t)

Electricity Consumption

CO2 Emissions from Logistics and the Proportion of Marine Transportation
- Consumption (thousand m3)
  - Japan: 1,240, 1,305, 1,197, 1,197, 1,177
  - Overseas: 1,177, 1,143, 1,183, 1,124, 1,124
- Consumption (crude equivalent) (kt)
  - Japan: 85,977, 70,642, 78,112, 82,123, 87,123
  - Overseas: 100,263, 100,263, 100,263

Proportion of marine transportation (international) (%)
- Japan: 80, 90, 80, 121, 120

Use of recycled cardboard
- Reduction in amount of wooden packaging materials used (t)

Environmental Impact of Logistics

CO2
- Emissions (kt-CO2)
  - Japan: 63, 57, 55, 55, 55
  - Overseas: 55, 55, 55, 55, 55

Proportion of marine transportation (international) (%)
- Japan: 80, 90, 80, 121, 120

Use of recycled cardboard
- Reduction in amount of wooden packaging materials used (t)

Environmental Impact of Logistics

CO2
- Emissions (kt-CO2)
  - Japan: 63, 57, 55, 55, 55
  - Overseas: 55, 55, 55, 55, 55

Proportion of marine transportation (international) (%)
- Japan: 80, 90, 80, 121, 120

Use of recycled cardboard
- Reduction in amount of wooden packaging materials used (t)
### Amount of Waste Generated

<table>
<thead>
<tr>
<th>Year</th>
<th>Waste</th>
<th>Japan</th>
<th>Overseas</th>
<th>Total Product Shipment (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>14,960</td>
<td>13,989</td>
<td>10,780</td>
<td>32,715</td>
</tr>
<tr>
<td>2020</td>
<td>14,208</td>
<td>12,793</td>
<td>12,921</td>
<td>31,184</td>
</tr>
<tr>
<td>2021</td>
<td>12,831</td>
<td>11,587</td>
<td>12,789</td>
<td>28,862</td>
</tr>
<tr>
<td>2022</td>
<td>14,352</td>
<td>14,461</td>
<td>14,000</td>
<td>41,352</td>
</tr>
<tr>
<td>2023</td>
<td>14,922</td>
<td>15,052</td>
<td>15,420</td>
<td>48,922</td>
</tr>
</tbody>
</table>

* Scope: Japan

### Recycling

<table>
<thead>
<tr>
<th>Year</th>
<th>Recycling Rate (%) in Japan</th>
<th>Recycling Rate (%) Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>99.2%</td>
<td>98.9%</td>
</tr>
<tr>
<td>2020</td>
<td>99.3%</td>
<td>99.1%</td>
</tr>
<tr>
<td>2021</td>
<td>99.5%</td>
<td>99.0%</td>
</tr>
<tr>
<td>2022</td>
<td>99.8%</td>
<td>99.9%</td>
</tr>
<tr>
<td>2023</td>
<td>99.5%</td>
<td>99.5%</td>
</tr>
</tbody>
</table>

### SOx Emissions (t)

<table>
<thead>
<tr>
<th>Year</th>
<th>SOx Emissions (t) Japan</th>
<th>SOx Emissions (t) Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>2.8</td>
<td>19.2</td>
</tr>
<tr>
<td>2020</td>
<td>4.0</td>
<td>23.1</td>
</tr>
<tr>
<td>2021</td>
<td>4.9</td>
<td>28.1</td>
</tr>
<tr>
<td>2022</td>
<td>4.8</td>
<td>33.1</td>
</tr>
<tr>
<td>2023</td>
<td>4.5</td>
<td>38.1</td>
</tr>
</tbody>
</table>

### NOx Emissions (t)

<table>
<thead>
<tr>
<th>Year</th>
<th>NOx Emissions (t) Japan</th>
<th>NOx Emissions (t) Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>9.6</td>
<td>56.9</td>
</tr>
<tr>
<td>2020</td>
<td>11.9</td>
<td>66.9</td>
</tr>
<tr>
<td>2021</td>
<td>13.0</td>
<td>76.9</td>
</tr>
<tr>
<td>2022</td>
<td>13.1</td>
<td>86.9</td>
</tr>
<tr>
<td>2023</td>
<td>12.7</td>
<td>96.9</td>
</tr>
</tbody>
</table>

### Chemical Substances Consumption/Emissions (Japan)

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
<th>Methylnaphthalene</th>
<th>VOCs</th>
<th>Amount transported (waste amount) (t)</th>
<th>NOx Emissions (t)</th>
<th>SOx Emissions (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>101</td>
<td>5</td>
<td>0.0</td>
<td>96</td>
<td>5.1</td>
<td>2.8</td>
</tr>
<tr>
<td>2020</td>
<td>121</td>
<td>10</td>
<td>0.1</td>
<td>111</td>
<td>6.5</td>
<td>3.9</td>
</tr>
<tr>
<td>2021</td>
<td>144</td>
<td>13</td>
<td>0.1</td>
<td>131</td>
<td>7.8</td>
<td>4.8</td>
</tr>
<tr>
<td>2022</td>
<td>119</td>
<td>11</td>
<td>0.1</td>
<td>111</td>
<td>7.2</td>
<td>4.7</td>
</tr>
<tr>
<td>2023</td>
<td>104</td>
<td>11</td>
<td>0.1</td>
<td>111</td>
<td>6.8</td>
<td>4.5</td>
</tr>
</tbody>
</table>

### Social

**Number of Employees (Entire Group)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of regular employees</th>
<th>Number of regular employees (Region)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>12,469</td>
<td>12,452</td>
</tr>
<tr>
<td>2020</td>
<td>13,542</td>
<td>13,475</td>
</tr>
<tr>
<td>2021</td>
<td>14,022</td>
<td>14,002</td>
</tr>
<tr>
<td>2022</td>
<td>15,140</td>
<td>15,140</td>
</tr>
<tr>
<td>2023</td>
<td>16,605</td>
<td>16,605</td>
</tr>
</tbody>
</table>

**Employees (Region)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of employees Japan</th>
<th>Number of employees Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>6,619</td>
<td>2,832</td>
</tr>
<tr>
<td>2020</td>
<td>7,526</td>
<td>3,494</td>
</tr>
<tr>
<td>2021</td>
<td>8,082</td>
<td>3,796</td>
</tr>
<tr>
<td>2022</td>
<td>8,822</td>
<td>4,128</td>
</tr>
<tr>
<td>2023</td>
<td>9,789</td>
<td>4,819</td>
</tr>
</tbody>
</table>

**Recruitment/Employment (Japan)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number hired</th>
<th>Number of employees Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>199</td>
<td>8,100</td>
</tr>
<tr>
<td>2020</td>
<td>198</td>
<td>8,296</td>
</tr>
<tr>
<td>2021</td>
<td>166</td>
<td>9,022</td>
</tr>
<tr>
<td>2022</td>
<td>158</td>
<td>9,340</td>
</tr>
<tr>
<td>2023</td>
<td>167</td>
<td>9,659</td>
</tr>
</tbody>
</table>

**Composition of Employees (Japan)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>166</td>
<td>33</td>
</tr>
<tr>
<td>2020</td>
<td>158</td>
<td>32</td>
</tr>
<tr>
<td>2021</td>
<td>151</td>
<td>31</td>
</tr>
<tr>
<td>2022</td>
<td>147</td>
<td>30</td>
</tr>
<tr>
<td>2023</td>
<td>147</td>
<td>30</td>
</tr>
</tbody>
</table>

**Number of people (senior directors and above)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>2020</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2021</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2022</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2023</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

**Ratio of female managers**

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio of Female Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>163%</td>
</tr>
<tr>
<td>2020</td>
<td>163%</td>
</tr>
<tr>
<td>2021</td>
<td>163%</td>
</tr>
<tr>
<td>2022</td>
<td>163%</td>
</tr>
<tr>
<td>2023</td>
<td>163%</td>
</tr>
</tbody>
</table>
Data Section

Female managers (Japan) 2019.3 2020.3 2021.3 2022.3 2023.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of people</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>23</td>
<td>100</td>
</tr>
<tr>
<td>2020.3</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>2021.3</td>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td>2022.3</td>
<td>26</td>
<td>100</td>
</tr>
<tr>
<td>2023.3</td>
<td>27</td>
<td>100</td>
</tr>
</tbody>
</table>

Employee retention (Japan) 2019.3 2020.3 2021.3 2022.3 2023.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Retention after three years of TEL</th>
<th>Turnover percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>93.0</td>
<td>7.0</td>
</tr>
<tr>
<td>2020.3</td>
<td>93.8</td>
<td>6.2</td>
</tr>
<tr>
<td>2021.3</td>
<td>94.1</td>
<td>5.9</td>
</tr>
<tr>
<td>2022.3</td>
<td>94.7</td>
<td>5.3</td>
</tr>
<tr>
<td>2023.3</td>
<td>92.7</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Employee turnover (Entire Group) 2019.3 2020.3 2021.3 2022.3 2023.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Employee turnover</th>
<th>Turnover due to personnel circumstances</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>517</td>
<td>0.2%</td>
</tr>
<tr>
<td>2020.3</td>
<td>625</td>
<td>0.1%</td>
</tr>
<tr>
<td>2021.3</td>
<td>510</td>
<td>0.3%</td>
</tr>
<tr>
<td>2022.3</td>
<td>547</td>
<td>0.2%</td>
</tr>
<tr>
<td>2023.3</td>
<td>599</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Employee turnover (Japan) 2019.3 2020.3 2021.3 2022.3 2023.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Employee turnover</th>
<th>Turnover due to personnel circumstances</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>108</td>
<td>0.1%</td>
</tr>
<tr>
<td>2020.3</td>
<td>82</td>
<td>0.2%</td>
</tr>
<tr>
<td>2021.3</td>
<td>87</td>
<td>0.3%</td>
</tr>
<tr>
<td>2022.3</td>
<td>87</td>
<td>0.4%</td>
</tr>
<tr>
<td>2023.3</td>
<td>98</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Work-life Balance (Japan) 2019.3 2020.3 2021.3 2022.3 2023.3

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of those who took leave</th>
<th>Number of those who returned to work after leave</th>
<th>Turnover percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>129</td>
<td>43</td>
<td>33%</td>
</tr>
<tr>
<td>2020.3</td>
<td>125</td>
<td>48</td>
<td>38%</td>
</tr>
<tr>
<td>2021.3</td>
<td>86</td>
<td>54</td>
<td>60%</td>
</tr>
<tr>
<td>2022.3</td>
<td>80</td>
<td>64</td>
<td>80%</td>
</tr>
<tr>
<td>2023.3</td>
<td>98</td>
<td>76</td>
<td>78%</td>
</tr>
</tbody>
</table>

Products/Innovation

<table>
<thead>
<tr>
<th>Year</th>
<th>Products/Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>4,415</td>
</tr>
<tr>
<td>2020.3</td>
<td>4,606</td>
</tr>
<tr>
<td>2021.3</td>
<td>4,822</td>
</tr>
<tr>
<td>2022.3</td>
<td>4,988</td>
</tr>
<tr>
<td>2023.3</td>
<td>5,360</td>
</tr>
</tbody>
</table>

Customer

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of respondents who selected &quot;very Satisfied&quot; or &quot;Satisfied&quot; in the customer satisfaction survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>84.4</td>
</tr>
<tr>
<td>2020.3</td>
<td>89.0</td>
</tr>
<tr>
<td>2021.3</td>
<td>84.9</td>
</tr>
<tr>
<td>2022.3</td>
<td>74.9</td>
</tr>
<tr>
<td>2023.3</td>
<td>74.5</td>
</tr>
</tbody>
</table>

Safety

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of employees who received training on basic safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>100</td>
</tr>
<tr>
<td>2020.3</td>
<td>100</td>
</tr>
<tr>
<td>2021.3</td>
<td>100</td>
</tr>
<tr>
<td>2022.3</td>
<td>100</td>
</tr>
<tr>
<td>2023.3</td>
<td>100</td>
</tr>
</tbody>
</table>

Procurement

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of identified INAP conformant smelters (rate of identification)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>253 (100)</td>
</tr>
<tr>
<td>2020.3</td>
<td>261 (100)</td>
</tr>
<tr>
<td>2021.3</td>
<td>236 (100)</td>
</tr>
<tr>
<td>2022.3</td>
<td>243 (100)</td>
</tr>
<tr>
<td>2023.3</td>
<td>234 (100)</td>
</tr>
</tbody>
</table>

Compliance

<table>
<thead>
<tr>
<th>Year</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>98.8</td>
</tr>
<tr>
<td>2020.3</td>
<td>91.6</td>
</tr>
<tr>
<td>2021.3</td>
<td>96.1</td>
</tr>
</tbody>
</table>

Social Contribution

<table>
<thead>
<tr>
<th>Year</th>
<th>Social Contribution (million yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019.3</td>
<td>1,548</td>
</tr>
<tr>
<td>2020.3</td>
<td>1,712</td>
</tr>
<tr>
<td>2021.3</td>
<td>1,988</td>
</tr>
<tr>
<td>2022.3</td>
<td>2,204</td>
</tr>
<tr>
<td>2023.3</td>
<td>2,481</td>
</tr>
</tbody>
</table>

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

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TOKYO ELECTRON Integrated Report 2023