Management Foundation

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- Build a highly effective corporate governance system to realize medium- to long-term growth, strengthen risk management and thoroughly enforce compliance to ensure that operational decision-making and supervisory functions are exercised sufficiently
- Maintain high ethical standards and expand human rights due diligence (impact assessment and remediation) and grievance processes based on the Group-wide Human Rights Policy to practice respect for human rights
- Strive to create new value by respecting the individuality and values of each employee and cultivating their individual capabilities, and encourage work styles in sync with their respective lifestyles
- Strive to achieve medium- and long-term environmental goals for products, plants and offices and promote E-COMPASS through partnerships with suppliers to reduce environmental impact throughout the value chain
- Develop sustainable operations in accordance with global standards throughout the entire supply chain

SDGs Initiatives

3 GOOD HEALTH AND WELL-BEING
- Create a work environment where employees can work in good health and with peace of mind

5 GENDER EQUALITY
- Promote gender equality and ensure equal opportunity and fairness of outcomes
- Enhance engagement and build a work environment that respects human rights and diversity while maximizing individual abilities

8 DECENT WORK AND ECONOMIC GROWTH
- Practice motivation-oriented management based on the idea that "Our corporate growth is enabled by people, and our employees both create and fulfill company values."

10 REDUCED INEQUALITIES
- Ensure equal opportunity and fairness of outcomes through the appropriate promotion of relevant laws and regulations, etc.

13 CLIMATE ACTION
- Promote activities to reduce environmental impact through our business and contribute to the preservation of the global environment
- Reduce toxic chemicals and air, water and soil pollution
- Strengthen resilience and adaptability to climate-related and natural disasters

16 PEACE, JUSTICE AND STRONG INSTITUTIONS
- Build a highly effective corporate governance system while strengthening risk management and thoroughly enforcing compliance in order to build a strong and sound management foundation
- Prevent all forms of bribery and corruption

17 PARTNERSHIPS FOR THE GOALS
- Build a management foundation that underpins business activities by strengthening global partnerships

Corporate Governance

Corporate Governance System

Basic Stance

Tokyo Electron regards building corporate governance structures as important for achieving success in global competition, realizing sustainable growth. To that end, we have built a structure for utilizing to the maximum the worldwide resources we possess and have worked to incorporate a wide range of opinions to strengthen our management foundation and technology base, establishing a governance structure capable of ensuring that we attain global-level earnings power. We established the Corporate Governance Guidelines* and outlined the corporate governance structures that we have developed and reinforced ahead of other companies.

* 🔗 Corporate Governance Guidelines

Further Development of Corporate Governance

We use the Audit & Supervisory Board System, which consists of a Board of Directors and an Audit & Supervisory Board, and have achieved effective governance based on the supervision of management by the Audit & Supervisory Board.
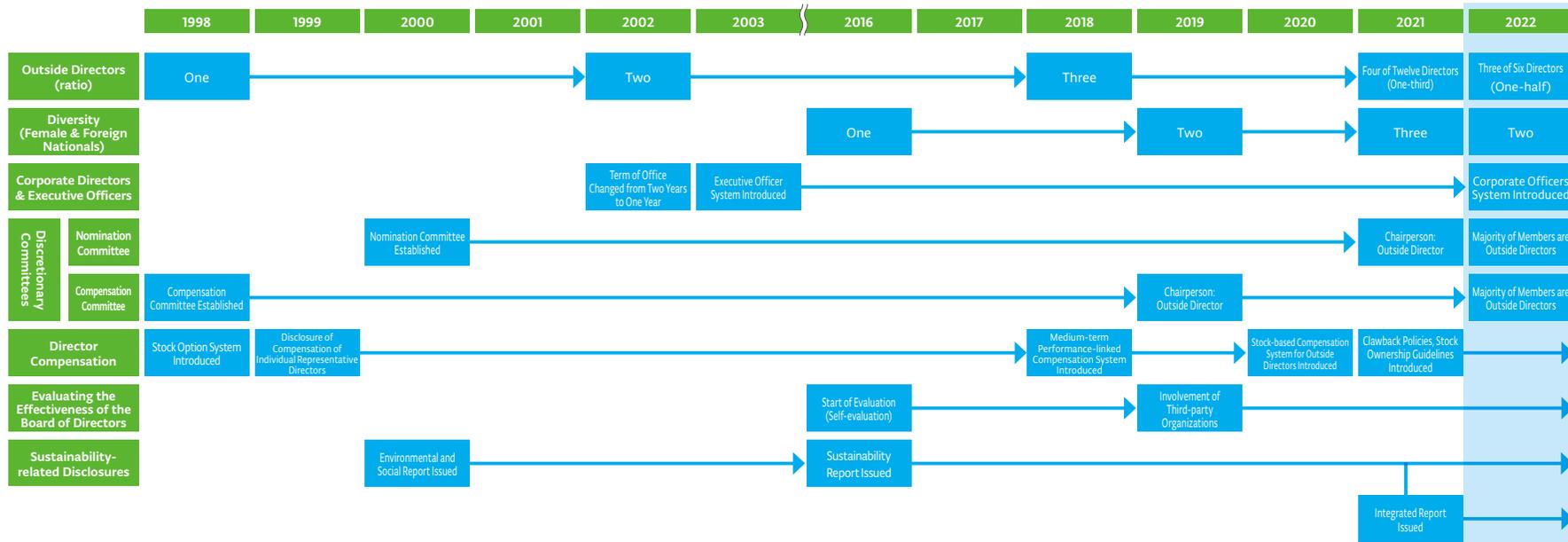
In April 2022, we transited to the Prime Market of the Tokyo Stock Exchange and took the following actions

reinforcing corporate governance to respond to the expectations of capital markets including compliance with the Corporate Governance Code and to enhance corporate value even further.
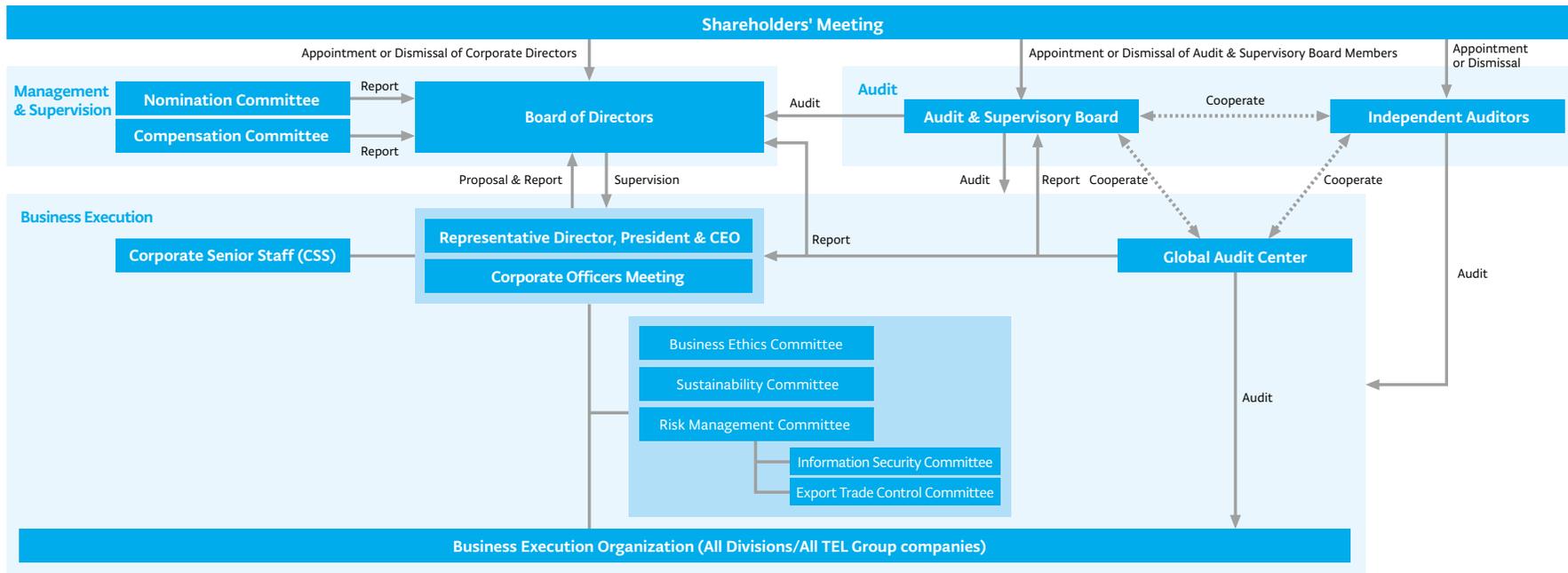
(1) Changed the composition of the Board of Directors to three inside directors and three outside directors
(2) Appointed a majority of outside directors to the Nomination Committee and Compensation Committee, including their respective chairpersons
(3) Introduced a Corporate Officers system, under which corporate officers, as the highest decision-making body on the executive side of the Group, are responsible for the entire Group management and business execution
(4) Established the Corporate Officers Meeting and appropriately delegated authority from the Board of Directors to the executive side to conduct prompt decision-making and agile operational execution
(5) Corporate officers attend Board of Directors meetings and apply the details of Board deliberations to business execution in an appropriate and speedy manner

By establishing a Board of Directors that performs its supervisory functions and a robust business execution system in the semiconductor production equipment industry, where technological innovation is rapid and market changes are active, we will further promote growth-oriented group management on a global basis, expand short-, medium- and long-term profit and achieve continuous corporate value enhancement.

Changes in Corporate Governance (Since CY1998)

	1998	1999	2000	2001	2002	2003	2016	2017	2018	2019	2020	2021	2022
Outside Directors (ratio)	One				Two				Three			Four of Twelve Directors (One-third)	Three of Six Directors (One-half)
Diversity (Female & Foreign Nationals)							One		Two		Three		Two
Corporate Directors & Executive Officers					Term of Office Changed from Two Years to One Year	Executive Officer System Introduced							Corporate Officers System Introduced
Discretionary Committees — Nomination Committee			Nomination Committee Established									Chairperson: Outside Director	Majority of Members are Outside Directors
Discretionary Committees — Compensation Committee	Compensation Committee Established								Chairperson: Outside Director				Majority of Members are Outside Directors
Director Compensation	Stock Option System Introduced	Disclosure of Compensation of Individual Representative Directors						Medium-term Performance-linked Compensation System Introduced		Stock-based Compensation System for Outside Directors Introduced		Clawback Policies, Stock Ownership Guidelines Introduced	
Evaluating the Effectiveness of the Board of Directors							Start of Evaluation (Self-evaluation)			Involvement of Third-party Organizations			
Sustainability-related Disclosures			Environmental and Social Report Issued				Sustainability Report Issued						
												Integrated Report Issued	

Corporate Governance Framework

Shareholders' Meeting

Appointment or Dismissal of Corporate Directors

Appointment or Dismissal of Audit & Supervisory Board Members

Appointment or Dismissal

Management & Supervision

Nomination Committee — Report
Compensation Committee — Report

Board of Directors

Audit

Audit

Audit & Supervisory Board — Cooperate — **Independent Auditors**

Proposal & Report   Supervision   Audit   Report   Cooperate   Cooperate

Business Execution

Corporate Senior Staff (CSS)

Representative Director, President & CEO

Corporate Officers Meeting

Report

Global Audit Center

Business Ethics Committee
Sustainability Committee
Risk Management Committee
Information Security Committee
Export Trade Control Committee

Audit

Audit

Business Execution Organization (All Divisions/All TEL Group companies)

Nomination Committee	Composition: One inside director and two outside directors Chairperson: Outside director Number of Meetings: 12 in FY2022 Deliberation Topics: Appointment and dismissal of corporate directors and the CEO, candidates of independent outside directors, status of successor development, other topics

Compensation Committee	Composition: One inside director and two outside directors Chairperson: Outside director Number of Meetings: 10 in FY2022 Deliberation Topics: Policies concerning determination of individual compensation for corporate directors and others and the details of compensation, compensation of individual remuneration, etc. of representative directors, other topics

Board of Directors	Composition: Three inside directors and three outside directors Corporate officers also attend meetings to give explanations and reports, etc. Chairperson: Inside director (non-executive) Number of Meetings: 12 in FY2022

Audit & Supervisory Board	Composition: Two full-time Audit & Supervisory Board Members and three outside Audit & Supervisory Board members Chairperson: Full-time Audit & Supervisory Board member Number of Meeting: 9 in FY2022

Corporate Officers Meeting	The highest decision-making body on the executive side; established in June 2022 Composition: Six corporate officers Inside directors who are not corporate officers and inside Audit & Supervisory Board members also participate Chairperson: CEO Meeting Frequency: Once a month in principle

Corporate Senior Staff (CSS)	Reviews progress management and implementation of management plans from a global perspective Composition: Executive officers, management executives of overseas subsidiaries and others Meeting Frequency: Once a quarterly

Committees on the Executive Side	Business Ethics Committee ▪ Investigates the revision and revocation of the Code of Ethics and verifies the status of practice in accordance with the Code of Ethics ▪ Proposes and supports training and educational programs relating to business ethics Sustainability Committee ▪ Sets sustainability goals (short-, medium-, and long-term) and implements measures to achieve them ▪ Implements company-wide projects (the environment, human rights, RBA, etc.) Risk Management Committee ▪ Performs and shares information on company-wide risk management ▪ Promotes initiatives to address individual risk items in collaboration with risk owners

Establishment of the Director Compensation System

Basic Policy on Director Compensation

The entire 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

Role of the Compensation Committee

To secure transparency and fairness in management and the appropriateness of compensation, the Compensation Committee, which is chaired by an independent outside director, utilizes advice from an external expert who attends all meetings, compares compensation levels with companies in Japan and overseas and analyzes the latest trends and best practices in Japan and overseas (such as reflecting ESG in compensation). The committee then proposes to the Board of Directors a compensation system that is the most appropriate for the Group and individual compensation amounts for the representative directors based on the basic policies on compensation.

Overview of Compensation

The table below provides an overview of the composition of compensation and policies and decision-making for each type of compensation.

Advanced Initiatives Relating to Director Compensation

■ Shareholding Guidelines

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

Directors	Goals	
CEO	Fixed basic compensation (annual amount)	3 times
Inside Directors, Corporate Officers		2 times
Outside Directors		1 time
Executive Officers		1 time

■ Clawback Policy

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

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

Type of Compensation		Recipient			Overview of Compensation
		Inside Directors	Outside Directors	Audit & Supervisory Board Members	
Fixed Basic Compensation		●	●	●	■ Determine within the limit of total fixed basic compensation, which has been resolved at the Meeting of Shareholders ■ For executive directors, amounts are determined according to the scale of job responsibilities by making reference to the job grade frameworks of external expert organizations
Annual Performance-linked Compensation	Cash Bonuses	●	—	—	■ Amount is linked to business performance in the relevant fiscal year to raise awareness of enhancing performance in each fiscal year ■ Consists of cash bonuses and stock compensation-based stock options; the composition ratio is approximately 1:1 ■ Specific amounts and the number of stock options granted are commensurate with the corporate business performance and the results of individual performance evaluations in the relevant fiscal year (Indicators of the corporate business performance) Net income attributable to owners of parent and consolidated ROE are adopted, and the results of comparisons of operating margin and operating margin growth ratio with competitors are reflected on the amount of payment (Individual performance evaluation items) Contribution to short- and medium-term management strategy targets including ESG
	Stock Compensation-based Stock Options	●	—	—	■ Profit-sharing type compensation paid commensurate with business performance in each fiscal year, therefore no policy is in place for the payout proportion of fixed basic compensation ■ Stock compensation-based stock options are subject to a three-year exercise restriction period to motivate recipients to share a shareholder perspective while contributing to increasing corporate value over the medium to long term
Medium-term Performance-linked Compensation	Performance Share (stock-based compensation)	●	—	—	■ Paid to motivate recipients to contribute to medium- to long-term business performance improvement ■ If the payout rate is 100%, the payment amount is set at about 30% to 100% of the fixed basic compensation, commensurate with the scale of job responsibilities ■ The number of shares delivered is determined depending on the level of achievement of performance goals for the covered period (three fiscal years) ■ Consolidated operating margin and consolidated ROE have been adopted as the indicators for evaluating business performance
Non-performance-linked Compensation	Restricted Stock Units (stock-based compensation)	—	●	—	■ The remuneration system is designed to be more consistent with the expected role of giving advice to management from the perspective for increasing corporate value over the medium to long term ■ Standard amounts are set at about 50% to 60% of the fixed basic compensation to ensure an adequate balance between cash compensation and stock-based compensation ■ Provided in the form of share delivery after the covered period (three fiscal years) has passed

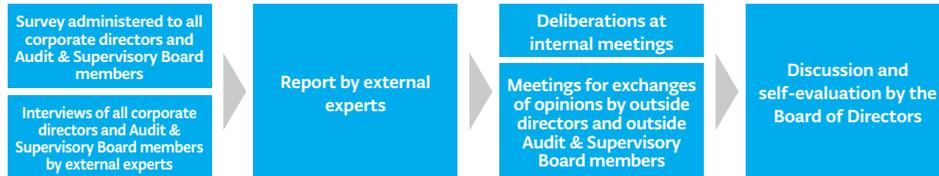## Evaluating the Effectiveness of the Board of Directors

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 year 2016 and have disclosed summaries of the results. Since fiscal year 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 FY2022**

Scope of Evaluation Board of Directors Overall (including details of the activities of the Nomination Committee and Compensation Committee)

Process

| Survey administered to all corporate directors and Audit & Supervisory Board members | → | Report by external experts | → | Deliberations at internal meetings | → | Discussion and self-evaluation by the Board of Directors |
| Interviews of all corporate directors and Audit & Supervisory Board members by external experts | | | | Meetings for exchanges of opinions by outside directors and outside Audit & Supervisory Board members | | |

Evaluation Items

The main evaluation items for evaluating effectiveness are as follows.

- Overall effectiveness of Governance System and the Board of Directors
  - Roles and functions of the Board of Directors
  - Size and composition of the Board of Directors
  - Operational status of the Board of Directors
- Composition, roles and operational status of the Nomination Committee
- Composition, roles and operational status of the Compensation Committee
- Further support to outside directors
- Roles of Audit & Supervisory Board members
- Relationship with investors and shareholders

■ **FY2022 Initiatives**

- Reinforcement of continuous deliberation concerning medium- to long-term management strategies
  Two off-site meetings were held for in-depth discussions on growth strategies, Medium-term Management Plan, the future governance system and other issues.
- Promoting diversity and developing and appointing global human resources
  Initiatives and the status of disclosure regarding human capital are reported to the Board of Directors, and with respect to diversity, the Board discusses, sets and discloses targets for the ratio of female managers and implement specific measures.
- Reinforcement of the internal audit system and collaboration between the Internal Audit Department and the Board of Directors
  The status of implementation of internal audits is reported to the Board of Directors. Also, risk-based audits are conducted pursuant to the audit map.
- Enhancement of information sharing by the Nomination Committee and the Compensation Committee with the Board of Directors

The status of activities of the Compensation Committee, discussion points concerning review of compensation systems, the status of progress of successor development plan and other matters are reported to the Board of Directors.

■ **Overview of FY2022 Evaluation Results**

We recognize that the Board of Directors appropriately performs its roles and obligations, generally with a high level of effectiveness, and the Board, including the Nomination Committee and the Compensation Committee, functions effectively (the analysis and evaluation by external experts resulted in a similarly high evaluation).

■ **Future Initiatives**

Based on the results of the most recent evaluation, we will continuously take action regarding the following items and work to enhance effectiveness even further.

(1) Measures to enhance the effectiveness of the Board of Directors in the 60th fiscal year
- Clarify the division of roles and decision-making authority and ensure appropriate checks and balances between the executive side and the Board of Directors
- Conduct appropriate operations of the newly established Corporate Officers Meeting to ensure effectiveness

(2) Continuous deliberation by the Board of Directors to achieve growth over the medium to long term and continuously enhance corporate value
- After clarifying specific timeframes (short-, medium- and long-term), organize targets and strategic themes and risk issues (deepen discussion relating to medium- to long-term growth strategies)
- Continuously address diversity and inclusion

(3) Investigate optimal information sharing among members of the Board of Directors and with the voluntary committees
- Ideal state of information sharing on the activities of the Nomination Committee with the Board of Directors
- Establish venues for exchanges of opinions among outside directors and outside Audit & Supervisory Board members

Main Topics for the Board of Directors and Off-site Meetings in FY2022

CEO	■ Reports on status of business execution by CEO (each meeting)	■ Sharing of CEO missions
Medium- to long-term growth strategies	■ Market environments over the medium to long term and our growth plans ■ New Medium-term Management Plan and future growth strategies	■ Expansion and reinforcement of development and production facilities in Japan and overseas ■ Business innovation projects
Risks	■ Improvement of risk management processes ■ Legal affairs and compliance	■ Procurement risks
Governance	■ Future governance system and decision-making processes ■ Action policies concerning sustainability and diversity ■ Reports on investment in human capital and intellectual property activities ■ Reports on internal audits	■ Status of investment targets and cross-shareholdings and status of IR activities ■ Status of the activities of the Compensation Committee ■ Status of progress of successor development plan ■ Closed session on evaluation of representative directors (corporate directors, excluding representative directors, and Audit & Supervisory Board members; once a year)

Skills Matrix

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

We will address priority themes relating to each material issue and achieve expansion of medium- to long-term profit and continuous corporate value enhancement by each corporate director and Audit & Supervisory Board member demonstrating their skills in global business, governance, sustainability and in particular, the areas listed below.

	Name	Expected Skills					
		Corporate Management	Semiconductor/ FPD	Manufacturing/ Development	Sales/ Marketing	Finance, Accounting/ Engagement with Capital Markets	Legal Affairs/ Risk Management
Corporate Directors	Toshiki Kawai	●	●	●	●		
	Sadao Sasaki	●	●	●	●		
	Yoshikazu Nunokawa		●	●	●	●	
	Michio Sasaki Outside	●		●	●		
	Makiko Eda Outside	●	●		●		
	Sachiko Ichikawa Outside					●	●
Audit & Supervisory Board Members	Yoshiteru Harada		●			●	●
	Kazushi Tahara	●	●	●	●		
	Kyosuke Wagai Outside					●	●
	Masataka Hama Outside	●				●	
	Ryota Miura Outside						●

Definition of Expected Skills

■ **Corporate Management**
Experience of corporate management (experience serving as a representative director or chairperson/president)

■ **Semiconductor/FPD**
Knowledge of semiconductor/FPD-related industries

■ **Manufacturing/Development**
Knowledge/experience in manufacturing and development at Tokyo Electron and other manufacturers

■ **Sales/Marketing**
Knowledge/experience in sales and marketing at Tokyo Electron 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 in legal affairs, compliance and risk management

Diversity of Board Members

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

Corporate Management	6
Semiconductor/FPD	6
Manufacturing/Development	5
Sales/Marketing	6
Finance, Accounting/Engagement with Capital Markets	5
Legal Affairs/Risk Management	4

Independence and Diversity of Corporate Directors
(Unit: persons)

Independent Outside Directors 3/6

Female Corporate Director 2/6
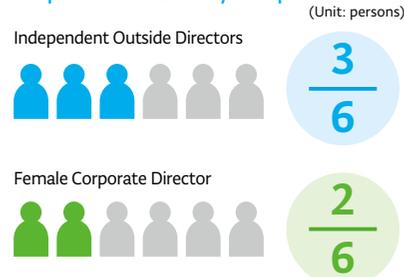
Change in Independent Outside Directors   (Unit: persons)

From June 2019 3/11 (27%) → From June 2021 4/12 (33%) → From June 2022 3/6 (50%)

Engagement with Capital Markets

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

For IR activities, in addition to quarterly earnings conferences, the CEO and each company's executive appear at Medium-term Management Plan announcement and IR Day events to share our business strategies and growth story. Simultaneous interpretation and subtitles are used to broadcast briefings in Japanese and English in an effort to provide fair disclosures to overseas investors. The IR Department, which was established under the direct control of the CEO, also supplements explanations as appropriate through individual interviews and regularly reports opinions from investors to management and the Board of Directors so that feedback can be of use in management. In addition, we actively participate in IR and ESG conferences in Japan and overseas and encourage dialogue with capital markets through the cooperation of company executives and the IR Department to gain a deeper understanding of the Group. In fiscal year 2022, we received a Best IR Award from Japan Investor Relations Association and were selected as a "Most Honored Company" by Institutional Investor magazine in the U.S. for the seventh consecutive years.

As a part of our SR activities, company executives play a central role in constructive dialogue with our major investors and proxy advisory firms. In addition to explaining the Shareholders' Meeting agenda in advance, we engage in repeated dialogue throughout the year on a wide range of topics including corporate governance, our policies about sustainability-related initiatives, the environment, human rights, and diversity and deepen mutual understanding.

To encourage active discussion and facilitate smooth and efficient voting at Shareholders' Meetings, we send convocation notices at an early stage, and also post notices in both Japanese and English on our website prior to sending notices and take other measures to provide information to shareholders in a timely manner. In addition, we analyze the results of the exercise of voting rights, report to the Board of Directors, and use the results to further enhance engagement with investors.

Risk Management

Approach to Risk Management

Tokyo Electron is 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 new Medium-term Management Plan that is competitive globally. We make decisions and supervise particularly material risks at the Corporate Officers Meeting and the Board of Directors, and implement countermeasures without fail alongside each of the Group companies and related departments.

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

Risk Management System

We have established the organization to oversee the entire Group at our headquarters and carry out enterprise risk management[1] to promote more effective risk management. This organization, together with the respective departments responsible for each operation, comprehensively identifies a wide range of risks associated with our business activities, such as compliance, human resource, labor and business continuity risks, and classifies those with high impact and probability as our material risks.

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

Additionally, we are continuing to focus on the revision and operation of our BCP, including responses to COVID-19, and are rapidly executing business continuity measures.

In fiscal year 2021, we introduced CSA[2], with each risk owner of the Group further strengthening risk management in the 13 defined categories. We will continue to implement autonomous and highly effective risk management.

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

Auditing by the Internal Audit Department

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

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

Risk Management Initiatives

We have begun to address emerging risks from a medium- to long-term perspective, going a step further than its conventional approach of assessing the current risk management state, identifying known and unknown risks that may surround the Company in the future and examining mitigation measures.

In fiscal year 2022, the 13 risks identified to date were reviewed and reevaluated from the perspective of their potential to have a significant impact on our operating results, financial condition and cash flow. We then pushed forward risk management initiatives for each identified risk even further.

Item	Main Potential Risks	Main Risk Management Initiatives
1. Market Fluctuation	▪ A rapid contraction of the semiconductor market could lead to overproduction or an increase in dead inventory ▪ A sharp increase in demand could lead to an inability to supply customers with products in a timely manner, resulting in lost opportunities	▪ Periodically review market conditions and orders received at the Board of Directors and other important meetings, and appropriately adjust capital investments, personnel/inventory planning and other aspects of business ▪ The Account Sales Division and the Global Sales Division strengthen the sales framework and customer base by grasping investment trends of customers and responding to a wide range of customer needs
2. Geopolitics	▪ Geopolitical tensions could undermine the international order and global macroeconomic conditions, affecting national and regional security, foreign, industrial or environmental policy. This could in turn lead to supply chain disruptions or deterioration of the macroeconomic environment, restricting the Company's ability to operate business	▪ Carefully watch the international situation as well as the diplomatic and security measures and industrial policy trends in each country and region ▪ Anticipate the impact of macroeconomic fluctuations and regulations related to product imports/exports or technological development on the Company's business and consider countermeasures in advance
3. Research and Development	▪ Delays in the launch of new products or the mismatch of such products with customer needs could lead to a decline in the competitiveness of products	▪ Establish the Corporate Innovation Division and build a Group-wide development framework that integrates innovative technology development with the technologies of each development division ▪ Provide highly competitive next-generation products ahead of competitors by collaborating with research institutions and sharing a technology roadmap spanning multiple generations with leading-edge customers
4. Procurement, Production and Supply	▪ Interruptions in the Company's production due to a natural disaster or delays in component procurement due to deterioration in the business conditions of a supplier or an increase in demand that exceeds the supplier's supply capacity could lead to delays in the supply of products to customers	▪ Formulate business continuity plans, develop alternate production capabilities, promote the seismic reinforcement of plants, level production, enhance the backup capabilities for information systems, use multiple sources of important parts and maintain appropriate inventory levels ▪ Share forecasts based on demand projections with suppliers and build a system for the stable supply of products
5. Safety	▪ Safety problems with the Company's products could lead to damage to customers, liability for damages and a decline in the Company's credibility	▪ Based on the "Safety First"[1] approach, place the highest priority on the safety and health of all people, implement essential safety design with an awareness of risk reduction at the product development stage, promote safety training and establish a reporting system in the event of an accident, etc.
6. Quality	▪ The occurrence of a product defect could lead to liability for damages, costs for countermeasures and a decline in the Company's credibility	▪ Establish a quality assurance system and a world-class service system ▪ Resolve technical issues from the product development and design stage ▪ Investigate the cause of any defects and implement measures to prevent the same or similar defects from occurring ▪ Monitor the quality status of suppliers, conduct audits and provide support for improvement
7. Laws and Regulations	▪ Violations of the laws and regulations of the countries and regions where the Company operates could lead to diminished public confidence in the Company, fines, liability for damages or restrictions on business activities	▪ Monitor compliance activities at key sites in and outside Japan under the direction of the Chief Compliance Officer ▪ Have assessments conducted by external experts and report identified issues to the CEO, the Board of Directors and the Audit & Supervisory Board for swift and effective action
8. Intellectual Property Rights	▪ The inability to obtain exclusive rights to proprietary technologies could lead to reduced product competitiveness. ▪ Infringement of the intellectual property rights of third parties could lead to restrictions on production and sales as well as liability for damages	▪ Advance the intellectual property strategy, business strategy and R&D strategy in an integrated manner to build an appropriate intellectual property portfolio
9. Information Security	▪ Breaches of information or the suspension of services due to unauthorized access by cyberattack, natural disasters or other factors could lead to diminished public confidence in the Company or liability for damages	▪ Launch a dedicated security organization and establish an information security system that conforms to international standards by having security assessments conducted by external experts, etc. ▪ Establish globally standardized rules and regulations for information management and implement response guidelines
10. Human Resources	▪ The inability to recruit and retain necessary human resources on an ongoing basis or the inability to create an environment where people with diverse values and expertise can play an active role could lead to diminished product development capability or customer support quality	▪ Make continuous improvements to work environments and promote diverse work styles as well as health and productivity management (e.g., sharing our visions by management, establishing training plans for human resource who will lead the future, visualizing career paths for employees and offering attractive remuneration and benefits)
11. Environmental Issues	▪ The inability to respond appropriately to each country's climate change policies, environmental laws and regulations, and customer needs could lead to additional related costs such as for developing new products or changing specifications, as well as to reduced product competitiveness and diminished public confidence in the Company	▪ To achieve industry-leading medium- to long-term environmental goals[2] that include the net zero target, implement measures such as reducing greenhouse gas emissions from the use of our products, increasing the ratio of renewable energy usage at plants and offices, reducing overall power consumption, reviewing packaging materials and promoting modal shift ▪ Provide technologies, etc., that contribute to higher performance and energy efficiency of semiconductor devices through implementation of our E-COMPASS initiative
12. Novel Coronavirus (COVID-19)	▪ The spread of COVID-19 could slow the Company's business activities or lead to a global economic downturn	▪ Establish an Emergency Task Force headed by the CEO ▪ Restrict travel to high infection-risk countries and regions, maintain supply chains and thoroughly implement infection prevention measures at plants and offices
13. Other Risks	▪ Business could be influenced by the global and regional political landscape, economic environment, financial and stock markets, foreign exchange fluctuations and other factors	▪ Take appropriate measures to counter such risks

1　📖 Safety First: Refer to p.45
2　📖 Medium- and Long-term Environmental Goals: Refer to p.50

Information Security

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

Main Activities

■ Information Security Systems

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

■ Security at Manufacturing Sites

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

* QCD: Quality, Cost, Delivery

■ Information Security Management

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

■ Supply Chain Security

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

■ Responses to Security Threats

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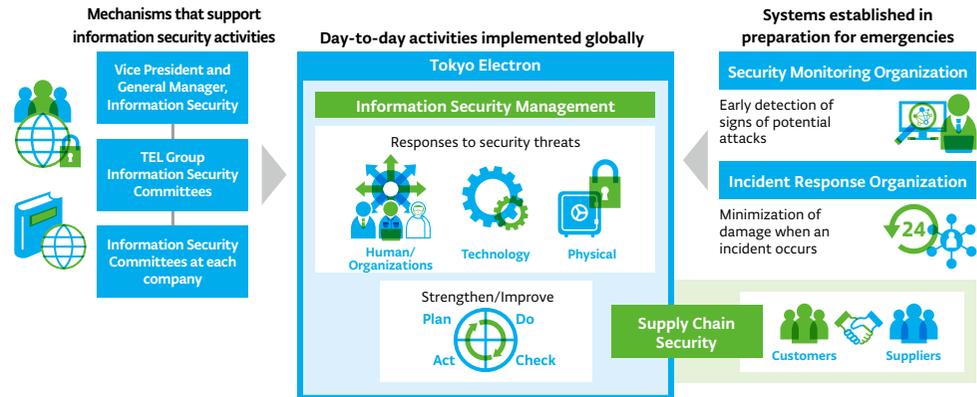
■ Increasing Resilience

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

* Penetration test: A test method for verifying vulnerabilities in networks, PCs, servers and systems.

Overview of Information Security

Mechanisms that support information security activities
- Vice President and General Manager, Information Security
- TEL Group Information Security Committees
- Information Security Committees at each company

Day-to-day activities implemented globally

Tokyo Electron
Information Security Management
Responses to security threats
- Human/Organizations
- Technology
- Physical

Strengthen/Improve
Plan — Do — Check — Act

Supply Chain Security
- Customers
- Suppliers

Systems established in preparation for emergencies
- Security Monitoring Organization — Early detection of signs of potential attacks
- Incident Response Organization — Minimization of damage when an incident occurs
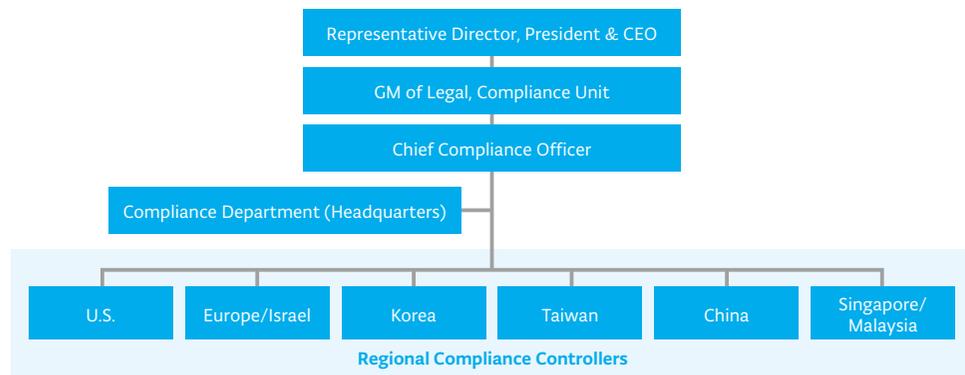
Compliance

Approach to Compliance

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

Compliance System

```
         Representative Director, President & CEO
                         |
            GM of Legal, Compliance Unit
                         |
              Chief Compliance Officer
                         |
        Compliance Department (Headquarters)
                         |
  ----------------------------------------------------
  |        |          |        |        |            |
 U.S.  Europe/Israel  Korea  Taiwan   China   Singapore/
                                               Malaysia
            Regional Compliance Controllers
```

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. The primary role of the Compliance Department is to formulate and review our practical compliance programs, establish and implement business ethics, plan and implement education and training, establish and operate internal reporting systems, and provide advice and support on compliance to each department. It also cooperates with our Risk Management Department, regularly confirms the observance of laws and regulations in each country as well as internal company rules at each of the Group companies, and assesses compliance risks.

Additionally, the persons responsible for compliance who are called Regional Compliance Controllers have been appointed at key overseas sites, establishing a system for direct reporting to the COO and Compliance Department.

We engage in improvement activities with the relevant departments as appropriate for the items identified in yearly operational audits conducted by the Internal Audit Department.

In fiscal year 2022, a third-party evaluation of our global compliance system was conducted by an external law firm, and we made efforts to further strengthen compliance by identifying items that require improvement.

Compliance Initiatives

Business Ethics

We have established the Business Ethics Committee to promote and raise awareness of compliance and business ethics more effectively together with establishing "Tokyo Electron's Code of Ethics" as the standard of conduct for all executives and employees. In addition, through regular meetings with each of the Group companies, we discuss and implement measures to promote compliance.

Implementation rate for training & pledge of Code of Ethics (FY2022)

91.6%

Our Code of Ethics, which is available in five languages* including Japanese, is distributed not only in downloadable PDF formats but also in the form of a booklet to all executives and employees to ensure awareness.

In fiscal year 2021, the Code of Ethics was revised and provisions such as personal data protection, information security and money laundering were added. We are also striving to raise awareness of compliance and business ethics by regularly obtaining pledges from all executives and employees that they understand and comply with the content.

We have also set up the Disciplinary Committee as a subordinate organization of the Business Ethics Committee for the purpose of ensuring the implementation of reasonable and appropriate disciplinary action and proper procedures.

* Five languages: Japanese, English, Korean, Traditional Chinese and Simplified Chinese

Initiatives for Anti-Bribery and Corruption and for Competition Laws

We have established the Group-wide Basic Policy on the Prevention of Bribery and Corruption and regularly conducts training to promote understanding and awareness. Based on this policy, we have prepared the Guidelines for Gifts, Hospitality, and Entertainment, which stipulate specific, practical procedures and standards on monetary amounts, and we have established a thorough process requiring prior approval for cases where there is a deviation from these standards.

Using questionnaires that we have prepared, we regularly check the status of our suppliers' efforts to prevent corruption and provide them with feedback on the results and areas for improvement.

We have also established the Group-wide Basic Policy on Competition Law Compliance, and have prepared, disseminated and enforced guidelines for executives and employees that summarize different types of violations in an easy-to-understand format, based on applicable laws and regulations in the countries and regions in which we operate.

Compliance Training

We conduct online and face-to-face training adapted to different levels, for all employees*. We will systematically expand our comprehensive training program and multilingual support, and reinforce efforts to foster compliance awareness and practice in the Company.

* Training and seminar topics include basics of business ethics and compliance, anticorruption, export compliance, insider trading prevention, the Act for Subcontracting, and the prevention of harassment. Some training is limited to certain employees such as department managers or new employees.

Internal Reporting System

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

Specifically, we have established and are operating the Tokyo Electron Group Ethics & Compliance Hotline—a global common internal point of contact that uses a third-party system that is also accessible to our suppliers—as well as an external point of contact that allows direct consultation with an outside law firm. The internal point of contact can be accessed via phone or a dedicated website 24 hours a day, 365 days a year, and accommodates all languages used by employees.
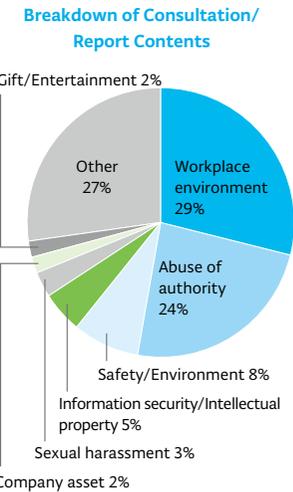
Global Response to Internal Reports
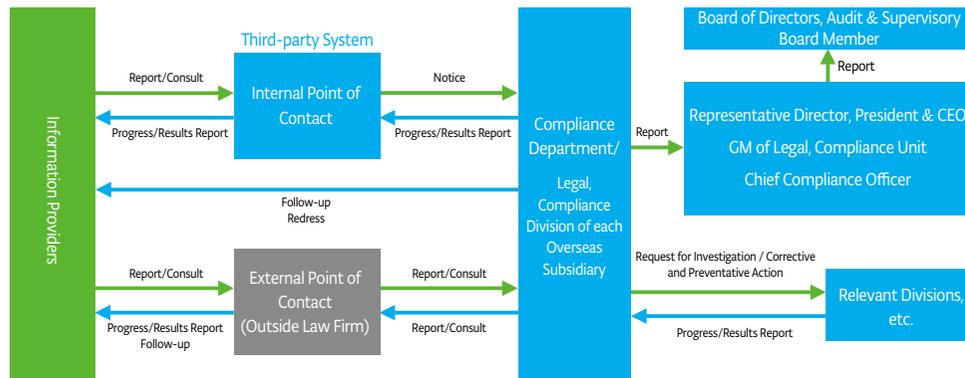
Reports and consultations received via these points of contact are handled with sincerity and investigations are undertaken in accordance with internal regulations. If a compliance violation is found, disciplinary action is taken in accordance with the Rules of Employment*, and preventive measures and corrective measures, such as improvements to the workplace environment, are implemented as necessary.

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

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

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

Breakdown of Consultation/ Report Contents

Gift/Entertainment 2%
Other 27%
Workplace environment 29%
Abuse of authority 24%
Safety/Environment 8%
Information security/Intellectual property 5%
Sexual harassment 3%
Company asset 2%

Respect for Human Rights

Approach to Human Rights

We at Tokyo Electron are conscious of our corporate social responsibility, and we recognize that it is important to conduct ourselves with a strong sense of integrity. Based on this recognition, we have firmly upheld human rights since our founding, as reflected in the spirit of our Corporate Philosophy and Management Policies. For us, respecting human rights means a significant undertaking, not only to fulfill our responsibility for eliminating adverse impacts on people caused by business activities but also to respect those people who support our business activities, and contribute to the realization of a sustainable, dream-inspiring society. We incorporate the concept of respect into every aspect of our business activities, and strive to nurture a dynamic corporate culture where each person can realize their full potential.

Human Rights Initiatives

Our Human Rights Policy[1], summarizing our approach to human rights specifies five focus areas: Freedom, Equality & Non-Discrimination; Freely Chosen Employment; Product Safety & Workplace Health and Safety; Freedom of Association; and Appropriate Working Hours & Breaks/Holidays/Vacations.

In preparing the Human Rights Policy, we referred to the United Nations' Guiding Principles on Business and Human Rights and the International Bill of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work referred to therein, the Ten Principles of the United Nations Global Compact, and the RBA Code of Conduct[2].
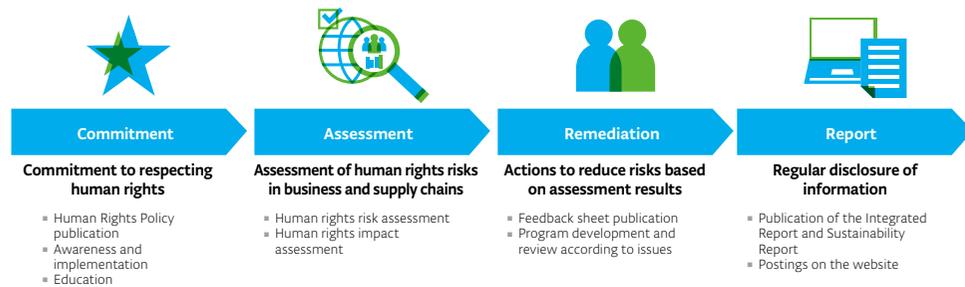
1   ⬀ Learn more about Human Rights Policy
2   RBA Code of Conduct: A set of standards established by the RBA for supply chains in the electronics industry for a safe labor environment, to ensure that workers are treated with respect and dignity, and that companies take responsibility for environmental impact in the manufacturing process

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

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

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

Commitment	Assessment	Remediation	Report
Commitment to respecting human rights	Assessment of human rights risks in business and supply chains	Actions to reduce risks based on assessment results	Regular disclosure of information
▪ Human Rights Policy publication ▪ Awareness and implementation ▪ Education	▪ Human rights risk assessment ▪ Human rights impact assessment	▪ Feedback sheet publication ▪ Program development and review according to issues	▪ Publication of the Integrated Report and Sustainability Report ▪ Postings on the website

Consequently, potential/actual risks (Priority/Major/Minor)[1] turned out to be 17% of our Group companies and 18% of suppliers, with labor- and health and safety-related risks comprising the majority of the risk breakdown.

In the area of labor, items including the formulation of policies and procedures pertaining to thorough management of working hours and the employment of student workers, interns and trainees were identified as risks. In the area of health and safety, items including the implementation of evacuation drills for all workers and deployment of trained emergency response personnel were identified as risks.

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

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

Percentages of Conformance and Potential/Actual Risks (Priority/Major/Minor)[1]

Internal Breakdown of potential/actual risks
Ethics 1%
Management Systems 1%
Health and Safety 48%
Labor 50%
Priority 1%
N/A 3%
Major 6%
Minor 10%
Conformance 80%

Suppliers Breakdown of potential/actual risks
Ethics 1%
Management Systems 4%
Health and Safety 51%
Labor 44%
Priority 1%
N/A 9%
Major 6%
Minor 11%
Conformance 73%
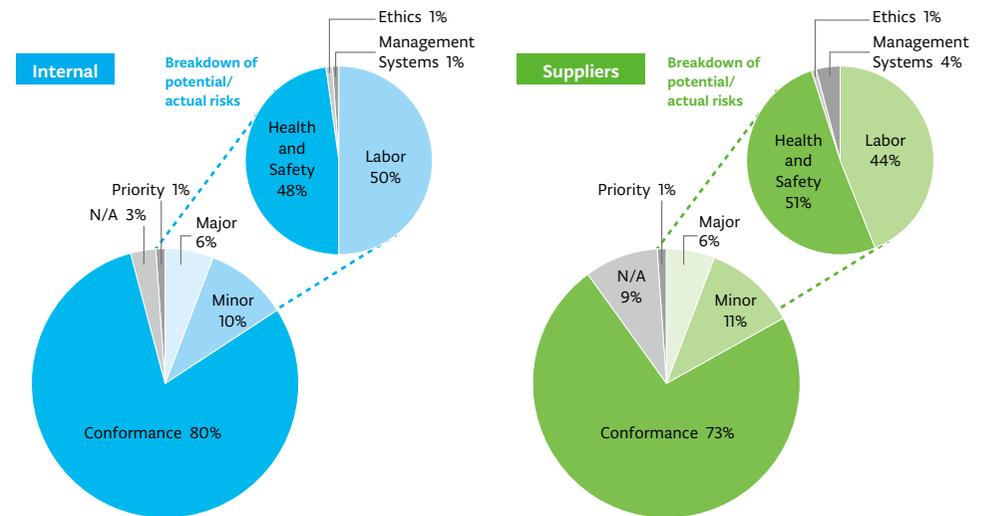
Furthermore, we recognize the importance of having highly effective grievance mechanisms related to human rights and are working to establish reporting systems[2] for employees and suppliers in Japan and abroad, and to further strengthen the operation of those mechanisms. By adopting highly justified and fair grievance mechanisms, we are identifying adverse human rights impacts at an early stage and building mechanisms to help remediate them.

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

1   Our classifications and definitions of conformance as well as potential/actual risks based on RBA auditing standards are as follows.
Priority: Issues considered particularly serious, which are at significant risk and require immediate priority remediation
Major: High-urgency issues which are at significant risk and require immediate remediation
Minor: Minor issues and risks recognized in each area which require remediation
Conformance: No issues were recognized in each area and requirements are being met
N/A: Indicates that "listed options do not resemble actual circumstances, or that the question is not applicable."

2   📖 Reporting Systems: Refer to Internal Reporting System on p.40

Human Resources
Human Resource Management

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

These initiatives have led to continuous improvement of employee engagement scores and the maintenance of high retention rates. This has also helped us earn the trust of our customers by ensuring reliable technology.

Our global uniform human resource platform discloses information such as job duties and career opportunities to all employees. Through this, we are implementing autonomous career development and visualizing career paths.

In addition, to promote career development, we are investing in capability development through TEL UNIVERSITY*. Furthermore, we differentiate employee evaluations based on Company performance as well as employee's individual responsibilities and contributions to the Company. Through this, we achieve fair and competitive global level compensation while striving to attract and retain the best human resources.

* 📖 TEL UNIVERSITY: Refer to Human Resource Concept at TEL UNIVERSITY on p.43. An in-house education platform that helps employees independently build their careers and realize their personal goals for their growth and development

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 year 2016 to assess the current state of employee engagement and identify issues. Based on the results of the surveys, we make improvements to foster a better workplace environment and culture by increasing opportunities for dialogue between management and employees as well as continuously communicating messages that emphasize safety, quality, and compliance. These initiatives resulted in an increase in the overall employee engagement score of 12 points from fiscal year 2016 to fiscal year 2021. In addition, the retention rate* in fiscal year 2022 was 96%, a high level even on a global scale.

* Retention rate is calculated using data on turnover rate.

Regular engagement survey process

Reviewing of circumstances → Planning for measures → Implementation of measures → Confirmation of effects → Improvement of measures

Implementation of measures
- Opportunities for dialogue between management and employees
- Communication of messages emphasizing safety, quality and compliance

Score **UP 12** points

Fostering a better workplace environment and culture

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

Diversity and Inclusion
Diversity and Inclusion System and Initiatives

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

- In terms of succession planning, we conduct a diversity-conscious talent pipeline (plan for developing human resources), and are implementing initiatives to achieve the goal of increasing the ratio of female in management[1] to 8.0% globally and 5.0% in Japan by fiscal year 2027 (as of March 31, 2022: globally 5.5% and in Japan 2.6%)
- Taking into consideration that many of our employees are engineers, we actively invest in the use of recruiters and branding to hire female engineers at a level that is equal to or greater than the general ratio of female engineers[2] in each region
- We create an organizational structure where even those from outside of Japan can take on corporate roles through the use of technology and shared global human resources systems
- We organize events such as "Diversity and Inclusion Day" and other events with internal promotion leaders and external experts, create networking opportunities for employees with similar characteristics and experience, and hold roundtable discussions regarding careers before and after taking maternity/paternity leave and childcare leave

1   Include experts in the number of managers
2   The ratio of females majoring in science or engineering

Diversity and Inclusion Day

Diversity and Inclusion Day, an online event with simultaneous streaming for Group companies worldwide, was held in February 2022.

In his opening speech, the CEO stated "We need to incorporate all wisdom and diverse ideas to maximize the growth potential of the entire Group. In order to do this, it is essential to promote diversity and inclusion." In addition, members from the U.S. including the president of Tokyo Electron America spoke about the importance of diversity and inclusion at a talk session.

Diversity and Inclusion Day

From Japan, two outside directors participated in a panel discussion regarding the roles of the Company in a rapidly changing global society. Through this event, the importance of embracing and making the most of diversity was once again confirmed.

TEL Values
Systems and Initiatives for TEL Values

A total of 15,634 employees are working at Tokyo Electron, which operates worldwide. We believe that each of them maintaining a high level of engagement and demonstrating their full potential will lead directly to our growth as a company.

By sharing with our employees the direction toward which management is aiming and providing platforms for direct dialogue through the employee meetings and discussions held at each site, we are striving to build mutual trust between the organization and individuals. Furthermore, to realize our Corporate Philosophy, we established TEL Values, which delineate Tokyo Electron's values, the mindset that each employee must possess and the codes of conduct to be passed on to the future. The TEL Values—pride, challenge, ownership, teamwork and awareness—are being put into practice by our employees all over the world.

TEL Values	
Pride	We take pride in providing high-value products and services.
Challenge	We accept the challenge of going beyond what others are doing in pursuing our goal of becoming number one globally.
Ownership	We will keep ownership in mind as we think things through, and engage in thorough implementation in order to achieve our goals.
Teamwork	We respect each other's individuality and we place a high priority on teamwork.
Awareness	We must have awareness and accept responsibility for our behavior as respectful members of society.

Employee Growth
Global Human Resources System

Tokyo Electron operates in 77 sites in 18 countries and regions. We believe it is important for human resources with different cultural backgrounds, experiences and attributes to share values and work together as one toward value creation.

In addition to implementing a common global job-based human resource system (GTC: Global TEL Career-paths) and this system, we are also focusing on global human resource management to promote career advancement under a common platform without biases against any country or the Group companies affiliation. This allows us to respond to changes in business environments and allocate resources in an agile and optimal manner.

Human Resource Development Concept at TEL UNIVERSITY

We have established TEL UNIVERSITY as an in-house educational establishment, helping employees to independently build their careers and realize their personal goals for their growth and development. Our aim is to create a foundation that enables the organization and individuals to trust each other and grow by standing shoulder to shoulder with each employee and supporting their self-growth and fruitful career development throughout their working life.

Karuizawa Training Center

In order to realize our Vision of "A company filled with dreams and vitality that contributes to technological innovation in semiconductors," we are focusing on the development of human resources who are essential to our development and promoting the following initiatives.

Provision of Global and On-demand Learning Opportunities

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

* On-demand education: Education programs that allow employees to learn at their own convenience, anywhere, anytime

Support for Career Development

We are expanding our education programs to help employees quickly acquire basic skills. We also provide information and tools so that employees can gain a more concrete image of their own learning, experience and career development.

Leader Programs

In order to nurture the next generation of leaders to support our future, we identify and systematically nurture staff to take on the role of realizing medium- to long-term corporate value enhancement. We provide next-generation management candidates with opportunities to build networks through participation in events such as external training, to develop a broader perspective, and to receive 360-degree feedback[1]. In addition, management, including outside directors, conduct systematic assignment considerations and reviews.

Corporate Education System (TEL UNIVERSITY)

	Management	Executives	Leaders	Mid-level Employees	Junior Employees New Employees
Level-based Programs		Introductory programs (new graduates, mid-career recruits)			
		OJT[2] programs (new graduates, mid-career recruits)			
		Manager programs		Mid-level employee programs	Junior employee programs
	Leader programs				
Goal-based Programs	Compulsory web-based training				
	Business skills				
	Global communication				
	Employee life support				
	Technical programs (seminars, workshops)				

1   360-degree feedback: Process for collecting feedback from the subordinates, peers and supervisors of employees, as well as self-evaluations by the employees themselves
2   OJT: On the job training

Work-life Balance

Work Styles

Tokyo Electron has established a work system that enables highly flexible work styles that respond to lifestyles and social situations, such as the introduction of a flextime system and teleworking to help employees achieve a better work-life balance.

In addition, we have created a new workplace by expanding and renovating the office space at the headquarters in order to realize more productive work styles. We have created an office environment tailored to each activity, including focus booths for immersing oneself in work by blocking out surrounding lines of sight and sound, spaces dedicated to communication and spaces suitable for online meetings, in order to improve employee productivity and creativity.

Leave System

Based on the belief that taking appropriate leave and properly managing work hours also contributes to better employee productivity, we strive to enhance the leave system and promote taking leave.

Refreshment leave
1,358 employees

Since fiscal year 2019, we have set an annual sustainability goal of 70% annual paid leave use and have been conducting promotional activities for employee awareness for planned use of leave.

We are also promoting regular monitoring of leave use status and urging management to improve leave use rates, ensuring that five days of compulsory annual leave are taken as required by law since April 2019. In fiscal year 2022, the leave use rates were 64.6% in Japan and 73.1% overseas.

Refreshment leave system aims to provide refreshment for employees and thereby boost their motivation to work, granting special (paid) leave from two weeks to one month per five years of service to employees who have worked for more than 10 years. This is our unique leave system, and in fiscal year 2022, 512 employees in Japan and 846 employees overseas took this leave.

In addition to the system made available by existing laws, we have an independently built system that allows employees to adopt a flexible approach to work that accords with diverse life events such as raising children or caring for family members. Regarding the situation in Japan, we have acknowledged the maximum extension of the childcare leave period to the day a child reaches three years of age, as well as expanding our provision of a reduced working-hours program for childcare to include employees rearing children as far as graduation from elementary school. In addition to nationally mandated leave to care for a sick or injured child, we have established our own childcare support leave and nursing care leave to support a better balance between work and childcare/nursing care.

Health and Safety

Health and Productivity Management

For Tokyo Electron to continue to grow, it is important for every employee to lead a fulfilling life and maximize their performance. Based on the understanding that our employees are the driving force of our business, we strive to create a healthy and safe work environment.

Besides conducting various medical checkups in accordance with the law, we offer face-to-face consultations by designated occupational health physicians for employees who work long hours. We also offer counseling opportunities supported by external industrial counselors for those who request them.

Furthermore, we are organizing regular line-care[1] seminars aimed at management, and, where necessary, holding liaison meetings with the health officers and health professionals at each Group company in Japan. Based on the collaborative health[2] concept, in cooperation with the Tokyo Electron Health Insurance Society, we are actively expanding data health[3] initiatives, providing employees health guidance and effective prevention and health promotion according to their individual circumstances while utilizing the examination data from medical checkups.

As a result of these efforts, the percentage of employees receiving specific health guidance[4] remained high in fiscal year 2022.

Furthermore, the entire Group in Japan has collectively received recognition as top 500 companies under the 2022 Certified Health & Productivity Management Outstanding Organizations Recognition Program[5] for the third consecutive year from fiscal year 2020.

We will continue to promote various initiatives at the global level to maintain and improve our employees' health.

1   Line-care: A workplace measure for mental health, in which managers and supervisors take a lead role in responding to requests by workers for advice, with the aim of improving the workplace environment
2   Collaborative health: Situation where a company actively cooperates with an insurer, such as a health insurance society, to effectively and efficiently promote the health of its employees and their families
3   Data health: Refers to a more effective and efficient health care program that is implemented in line with the health status of insured persons, by utilizing and analyzing the health and medical information held electronically by the medical insurer
4   Specific health guidance: Health guidance provided for reducing the number of people with metabolic syndrome (visceral fat syndrome) or at risk of metabolic syndrome, and for the early detection and early treatment of lifestyle diseases and cancer, etc.
5   Certified Health & Productivity Management Outstanding Organizations Recognition Program: The program publicly recognizes particularly outstanding organizations that are practicing health-oriented business management, based on initiatives attuned to local health-related challenges and on health-promotion initiatives led by the Nippon Kenko Kaigi.

Safety Management Framework

Based on a culture of "Safety First[1]," we continuously carry out activities to promote safety. Specifically, we use a management system based on OHSMS[2] to manage safety and occupational health and implement the PDCA cycle to reduce the potential risk of work-related incidents and raise the overall level of safety and occupational health. Moreover, by sharing incident information and information on measures to prevent reoccurrence at the Global Safety Council and the Manufacturing Companies Presidents' Council, we promote safety management as a company-wide initiative.

Safety Management Framework

1   📖 Safety First: Refer to Initiatives for Higher Productivity on p.26
2   Occupational Health and Safety Management System (OHSMS): A management system to improve the overall level of safety and occupational health

Incident Reporting System

In the event of an incident, we operate the TEL Incident Report System (TIRS) to quickly share information with all parties involved and follow up with the relevant department to confirm the incident response as well as to implement measures to prevent reoccurrence. Through the operation of this system, we will continue to strive for speedy information sharing and incident response.

Initiatives to Safety

On-site Safety Patrols

We conduct monthly health and safety committee meetings at each plant and office to discuss measures for any workplace safety or employee health issues and to conduct safety patrols. In addition, at least once a month, a representative from each department conducts safety inspections at manufacturing sites to establish a system to solve problems on their own initiative.

About Tokyo Electron   Sustainability Management   Product Competitiveness   Customer Responsiveness   Higher Productivity   **Management Foundation**   TEL FOR GOOD   Data

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Risk Assessment and Stop Work Authority

Before we start to work , the work details and the risks are shared with all workers involved, and they each increase their safety awareness in an effort to prevent incidents. In addition, effort is also being directed to providing guidance to safety managers as well as making workers stop work and take corrective action in the event of an unforeseen incident while on the job.

Safety Education

To help create a safe workplace, we have put in place two education programs globally.

Basic safety education is basic safety training targeting all employees. It is provided as introductory training for new hires, and thereafter, employees are required to take refresher training once every three years. Advanced safety education is a more specialized type of safety training targeted at workers on production lines and in cleanrooms. Those who are eligible for this training are required to take refresher training every year. For overseas transferees, the laws and regulations in their previous and future places of employment are compared, and additional safety education is added as necessary.

Also, to ensure the concept of safe equipment design permeates from design, manufacture and service operations, we hold a semiannual safe equipment design* seminar at our manufacturing sites in Japan, inviting an external guest to speak. We also promote our initiatives to prevent incidents, by providing our suppliers and customers with safety information as circumstances demand. As a result of having maintained a high priority on creating safe work environments, TCIR has been maintained at less than the goal of 0.50, with 0.30 in fiscal year 2022.

* 📖 Safe equipment design: Refer to Safe Design of Equipment on p.24

TCIR
0.30

Examples of Web-based Education Materials
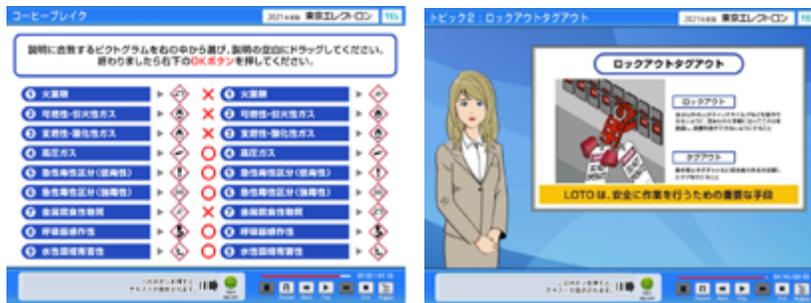
Environment

E-COMPASS Initiative

In June 2021, we introduced E-COMPASS (Environmental Co-Creation by Material, Process and Subcomponent Solutions) as a new initiative for building sustainable supply chains. Under this initiative, we share goals such as reducing the environmental burden of procurement and logistics, eliminating environmentally hazardous materials, and proactive environmental R&D for equipment with our suppliers, developing activities accordingly. Furthermore, we will also openly seek proposals on reducing environmental burden in relation to the environmental performance of our equipment, manufacturing processes and procurement and logistics, by proactively adopting superior technology and initiatives we are promoting to achieve these goals.

In fiscal year 2022, we held the E-COMPASS briefing session for suppliers where, in addition to informing them of the status of our initiatives, we also shared measures for mutual growth through co-creation with our suppliers. We also conducted the "E-COMPASS Survey" to confirm matters including the state of suppliers' environmentally conscious product development and the status of their products' compliance with environmental laws and regulations. Based on these results, we will discuss response measures with our suppliers and aim to further enhance the green performance of the industry as a whole.

We believe that reinforcing partnerships with our suppliers and leadership in the industry are key to the development of a data-driven society and preservation of the global environment. By utilizing every management resource at our disposal to promote E-COMPASS, we will actively endeavor to preserve the global environment throughout the entire supply chain.

Environmental Risks and Opportunities

Various environmental issues affect our daily lives and corporate activities. Physical risks, such as rising average global temperatures, strong winds, disasters and water shortages caused by climate change and abnormal weather, are expected to damage assets, increase operating costs and impact the supply chain. In addition, legal risks including stronger environmental laws and regulations, more stringent regulations on greenhouse gas emissions and the introduction of carbon taxes are expected to lead to higher costs for associated measures.

At the same time, promoting environmental initiatives leads to more opportunities to sell environmentally friendly products and reduce operating costs. We also recognize that providing high-value-added products that contribute to higher performance and lower power consumption of semiconductors and FPDs leads to the building of an energy-saving society that makes the most of information technology, and thus provides an opportunity to improve corporate value.

Based on the requirements of ISO 14001, we identified and analyzed internal and external issues in relation to the environment, namely, our relationship with the climate, air quality and water quality. We also clarified the environmental needs and expectations of customers, suppliers, governments and employees and identified our compliance obligations as an organization. In addition, we define risks and opportunities to address as: (1) environmental management by reducing the environmental impact of our business activities, (2) compliance with applicable laws and (3) enhancing product competitiveness with the environmental contribution of products.

Environmental Management System

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

Conference Name	Participants	Function	Meeting Frequency
Global Environment Council	Appointed members by the executives at headquarters and the Group companies	Set individual goals related to environmental issues, monitor progress, work to achieve our goals	Twice annually
TEL Corporate Environment Council	The GM in charge of the environment and department heads, etc.	The promotion of environmental activities across the entire Group, set company-wide goals	Appropriately
Council for the Regular Reporting of Environmental Activities (Since FY2022)	CEO, corporate directors in charge of the environment	Report on matters discussed at the Global Environment Council and the TEL Corporate Environment Council and review items for approval	Quarterly
Manufacturing Companies Presidents' Council*	Corporate directors in charge of the environment, etc.	Monitor and supervise progress related to environmental issues	Quarterly

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

To continuously promote our environmental activities, we began operation of an environmental management system based on ISO 14001 since fiscal year 1998, primarily at our manufacturing subsidiaries. In March 2017, the entire Group obtained ISO 14001 certification together, which had previously been obtained at each plant and office in Japan. In accordance with this certification, we have identified environmental impact assessments and useful environmental aspects and are executing a standardized group format for environmental management programs and internal audit checklists.

In fiscal year 2022, as part of environmental management across the entire Group, we established a total of approximately 100 environmental goals for different levels and carried out these improvement activities. Any issues identified through these activities are reviewed by the Global Environment Council and reported to the Manufacturing Companies Presidents' Council. We were once again free from environmental incidents, accidents, violations and legal proceedings in fiscal year 2022.
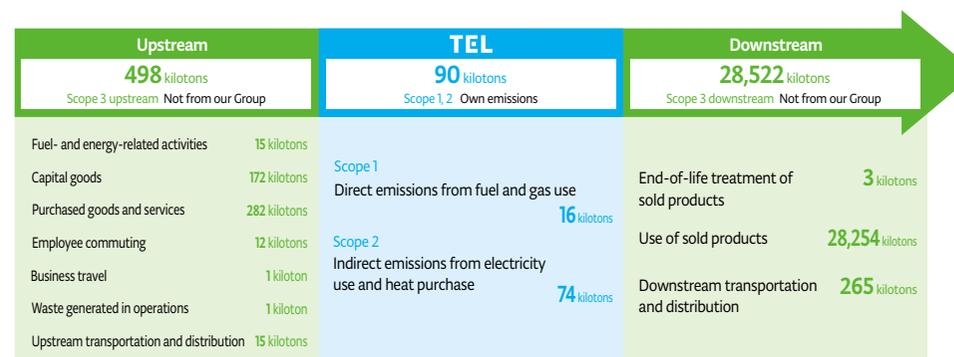
ISO 14001 Certified Plants and Offices

Company Name	Plant/Office Name	Certification Date
Tokyo Electron	Environment promotion department (Fuchu technology center)	May 1998
Tokyo Electron Technology Solutions	Fujii Office/Hosaka Office/Tohoku Office	
Tokyo Electron Kyushu	Koshi Office/Ozu Office	
Tokyo Electron Miyagi	Taiwa Office	
Tokyo Electron (Kunshan)	—	March 2013
TEL Manufacturing and Engineering of America	Chaska Office	March 2013
	North Chelmsford Office	May 2018
Tokyo Electron Korea	TEL Technology Center Korea, Balan Plant	July 2014

CO$_2$ Emissions across the Value Chain

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

Our total CO$_2$ emissions of Scope 1 and Scope 2 is 90 kilotons, while Scope 3 as the sum of upstream and downstream activities accounts for a total of 29,020 kilotons, approximately 99.7% of the total. Of this, CO$_2$ emissions when using products is 28,254 kilotons, about 97% of the total. This is why we consider the development of products with low CO$_2$ emissions during operation to be important.

Upstream	TEL	Downstream
498 kilotons	**90** kilotons	**28,522** kilotons
Scope 3 upstream Not from our Group	Scope 1, 2 Own emissions	Scope 3 downstream Not from our Group

Upstream		TEL		Downstream	
Fuel- and energy-related activities	15 kilotons			End-of-life treatment of sold products	3 kilotons
Capital goods	172 kilotons	**Scope 1** Direct emissions from fuel and gas use			
Purchased goods and services	282 kilotons		16 kilotons		
Employee commuting	12 kilotons	**Scope 2** Indirect emissions from electricity use and heat purchase		Use of sold products	28,254 kilotons
Business travel	1 kiloton				
Waste generated in operations	1 kiloton		74 kilotons	Downstream transportation and distribution	265 kilotons
Upstream transportation and distribution	15 kilotons				

▪**Scope 1:** TDirect greenhouse gas (GHG) emissions from use of fuel and gas we owned or controlled
▪**Scope 2:** Indirect GHG emissions from use of electricity, steam and heat we purchased
▪**Scope 3*:** Emissions from corporate value chains (excluding Scope 1 and 2 emissions), such as product transportation, employee business travel and major outsourced production processes

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

TCFD

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

Based on the TCFD recommendations, we examine the risks and opportunities that climate change poses to our business and take various response measures as we endeavor to make ongoing disclosures.

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

Status of Initiatives Related to Recommendations of the TCFD

■ Governance

We have established the Environment Promotion Department and the Corporate Sustainability Management Department at our headquarters, and the entire Group is pursuing initiatives for the TCFD recommendations.

Under the supervision of the CEO, the corporate director and executive officer in charge of the environment and sustainability give reports to the Board of Directors on our responses to climate change-related risks and opportunities and progress toward our goals and conduct reviews.

At the Global Environmental Council, comprised of members appointed by executives of headquarters and the Group companies, goals are set, progress is monitored and the achievement of these goals is promoted.

■ Strategy

We are conducting analysis that takes into account the following points in order to identify medium- to long-term risks and opportunities that climate change poses for our business.

- ▪Location of plants and offices
- ▪Occurrence of natural disasters caused by climate change and status of damages
- ▪Demands from customers, industries and investors
- ▪Government policies and regulations and taxation
- ▪Technological trends relating to renewable energy and energy saving
- ▪Climate change scenarios predicted by external agencies and research results

Under the 1.5°C scenario we identified transition risks including rising energy costs associated with fuel and energy taxes, and under the 4°C scenario we identified physical risks such as the impact of abnormal weather. Also, on the opportunity side we identified proactive initiatives to address climate change through R&D. In response to these risks and opportunities, we will implement the findings from our scenario analysis into our business strategies and establish medium- and long-term environmental goals, while also pursuing the adoption of renewable energy and the reduction of greenhouse gas emissions strategies across the entire supply chain.

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

■ Risk Management

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

Short-, medium- and long-term company-wide risk management initiatives that related divisions and councils recommend are deployed to the facilities and divisions of the Group companies after approval by the Manufacturing Companies Presidents' Council, which includes the corporate director in charge of the environment.

For Scope 1 and 2 CO_2 emissions, in addition to implementing measures to reduce CO_2 emissions at our key manufacturing sites in Japan with high emissions, we are pursuing the adoption of renewable energy on a global scale. For Scope 3 emissions, we recognize the importance of providing products that generate fewer CO_2 emissions because about 97% of the emissions in our entire value chain are generated during use of products after sale, so we are focusing on development of a range of environmental technologies.

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

* 📖 Risk Management: Refer to p.36

■ Metrics and Targets

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

- ▪With our semiconductor production equipment technology, we will contribute to enhancing the performance and reducing power consumption for semiconductor devices being used around the world
- ▪Initiatives for our medium- and long-term environmental goals[1]

  In order to achieve our long-term environmental goal of realizing net zero by 2050, we have established the following medium-term environmental goals and are carrying out various activities

  - Reducing our emissions: Reduce total CO_2 emissions at plants and offices by 70% (by fiscal year 2031, compared with fiscal year 2019), a rate of 100% renewable energy usage at plants and offices (by fiscal year 2031), and reduce energy consumption by 1% YoY at each plant and office (per-unit basis)
  - Reducing other emissions: Reduce per-wafer emissions of CO_2 by 30% (by fiscal year 2031, compared with fiscal year 2019)
  - Reducing the volume of water resources used[2] and the environmental burden of logistics[3], etc.
- ▪We launched "E-COMPASS[4]" in June 2021 as an initiative to build sustainable supply chains, and are promoting technological innovations for semiconductors, and reducing environmental impacts

1   📖 Medium- and Long-term Environmental Goals: Refer to p.50
2   📖 Initiatives to Reduce Water Consumption: Refer to p.52
3   📖 Logistics Initiatives: Refer to p.54
4   📖 E-COMPASS: Refer to E-COMPASS Initiative on p.46

Anticipated Risks and Opportunities of Climate Change Impact and Our Response

▪ Timeline: Short-term = five years or less; Medium-term = 2030; Long-term = 2050

▪ Scenarios used: 1.5°C scenario (1.5°C temperature increase), 4°C scenario (4°C temperature increase)

▪ Scope: The entire Group as well as the entire value chain including upstream and downstream

Type (Scenario)	Timeline of Risk Manifestation	Anticipated Risks and Opportunities	Our Response
Transition Risks (1.5°C scenario)	Short- to medium-term	▪ Increased energy costs due to taxes levied on fuel and energy: Assuming our greenhouse gas (GHG) emissions and use of renewable energy remain at fiscal year 2022 levels, if a carbon tax* were applied, we estimate our energy costs would increase by 700 million yen/year by fiscal year 2026 (assuming a carbon tax of 8,625 yen per ton of CO_2) and 2.1 billion yen/year by fiscal year 2041 (assuming a carbon tax of 23,575 yen per ton of CO_2) ▪ Reduced reputation among investors, NGOs and local communities if a response to climate change and other environmental issues is delayed	▪ Promote energy-saving and adopt renewable energy at plants and offices in order to achieve medium-term environmental goals. Furthermore, as a result of adopting renewable energy, the increased burden from fiscal year 2022 levels due to the introduction of a carbon tax will be reduced by 800 million yen for fiscal year 2026 and 2.2 billion yen for fiscal year 2041 compared to the amounts originally estimated in fiscal year 2021 ▪ Through the activities of our supply chain initiative, "E-COMPASS," we are promoting energy-saving and the adoption of renewable energy in the supply chain ▪ We publish the progress of efforts to achieve the medium-term environmental goals in the Integrated Report and Sustainability Report ▪ By expressing our approval of the TCFD and utilizing its framework, we are conducting risk management and promoting information disclosures
	Medium- to long-term	▪ Decreased net sales if we are unable to meet customers' requirements and demands to address the environment	▪ Develop semiconductor production equipment technology that contributes to enhanced performance of semiconductor devices and lower power consumption ▪ R&D for future technology markets ▪ Product development to achieve the medium-term environmental goals (reduce per-wafer emissions of CO_2 when products are in use)
Physical Risks (4°C scenario)	Short- to long-term	▪ Impacts on us, our suppliers and customers from abnormal weather (net sales decrease as a result of supply chain disruptions, operation stoppages, production/shipping delays, and other factors)	▪ Promote our business continuity plans (BCPs) and business continuity management (BCM) ▪ Deploy procurement BCPs to suppliers, and implement BCP assessments ▪ Periodic implementation of training, drills, etc. ▪ Maintain a database of suppliers' production sites ▪ Enroll in insurance in preparation for disasters resulting from abnormal weather
	Medium- to long-term	▪ Increased costs associated with increased air-conditioner and chiller usage due to higher temperatures	▪ Promote energy saving at plants and offices ▪ Adopt the use of renewable energy from our own power generation
Opportunities (Common)	Short- to long-term	▪ Higher productivity due to environment-related operations streamlining, thus reducing energy costs	▪ Promote energy saving and adopt renewable energy at plants and offices in order to achieve medium-term environmental goals
	Medium- to long-term	▪ Accelerated drive to create new value, including innovation toward development of low-GHG products and services, and equipment and technologies that contribute toward the manufacture of low-power consumption devices ▪ Engaging in proactive initiatives for climate change and creating added-value in products and services supplied to the market to gain superiority and business opportunities ▪ Securing a competitive advantage and contributing to improved corporate value by building resilience (responsiveness to climate change) into global operations	▪ Develop semiconductor production equipment technology that contributes to enhanced performance of semiconductor devices and lower power consumption ▪ Globally promote the latest in R&D with a focus on the future of semiconductors and electronics to continually supply the high-value-added Best Products with innovative technology in a timely manner ▪ Develop technology to achieve reduced per-wafer emissions of CO_2 when products are in use ▪ Through the activities of our supply chain initiative, "E-COMPASS," address climate change as it pertains to supply chains, respond to environmental regulations and innovate environmental technology

* Carbon tax: We referred to the International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario for the increase in tax associated with GHG emissions. 1 U.S. dollar was converted as 115 yen

Medium- and Long-term Environmental Goals

In order to further strengthen its initiatives toward the environment in its products, plants and offices, we have set the following medium-term environmental goals for fiscal year 2031.

Goals and Initiatives to Achieve Net Zero[1]
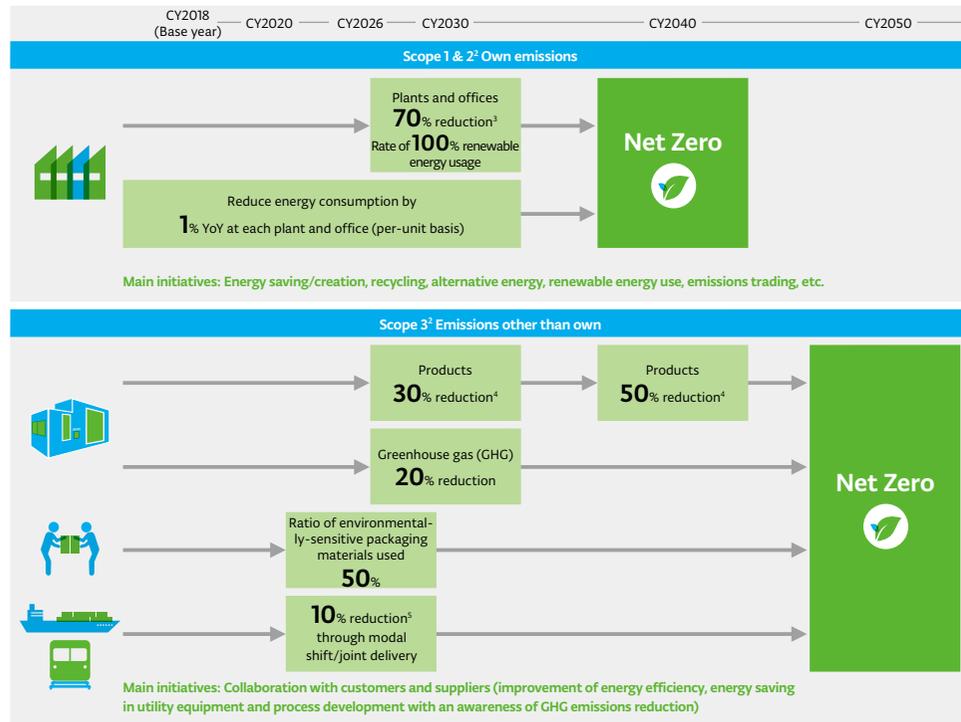
1   The notation of each calendar year in the figure indicates the fiscal year (e.g., CY2020 is from April 1, 2020 to March 31, 2021)
2   📖 CO_2 Emissions across the Value Chain: Refer to p.47
3   Total CO_2 emissions (compared with fiscal year 2019)
4   CO_2 emissions per wafer (compared with fiscal year 2019)
5   CO_2 emissions

In fiscal year 2022, we identified CO_2 emissions during the use of our reference products and set a roadmap for each product with goals for fiscal year 2031. In addition to the status of electricity, process gases and chemicals, water and other resources used in the production and use of each product, factors such as the effects of plans to reduce their use and the reduction effects of productivity improvements were also considered in setting this roadmap. The CO_2 emissions per wafer for products shipped in fiscal year 2022 were reduced by 11% compared to the base year.

Reduction in CO_2 Emissions and Rate of Renewable Energy (Electricity) Usage through the Introduction of Renewable Energy
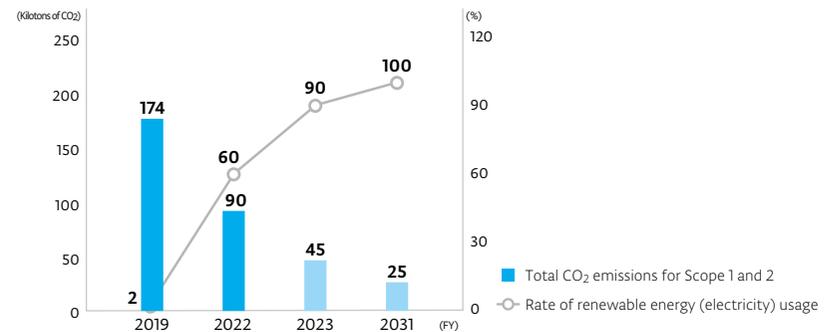
We have started to introduce renewable energy (electricity) at plants and offices in Japan, U.S. and China. As a result, the ratio of company-wide renewable energy use in fiscal year 2022 was 60%, and CO_2 emissions were reduced by 49% from the base year. In fiscal year 2023, we plan to complete the introduction of renewable energy at all of our manufacturing sites in Japan, as well as at other overseas plants and offices. Through these efforts, we expect to achieve a 90% rate of renewable energy usage and a 74% reduction in CO_2 emissions for fiscal year 2023. We will continue to develop activities that contribute to the achievement of our medium-term environmental goals by fiscal year 2031 for our products, plants and offices.

In January 2022, we applied for SBT* certification of our greenhouse gas emission reduction goals, and we plan to receive certification within fiscal year 2023. We are working together as one on initiatives to achieve the following long-term goal by 2050: "As a leading company in environmental management, Tokyo Electron works actively to conserve the global environment. We strive to contribute to the development of a dream-inspiring society by proactively promoting the reduction of environmental burden of both our facilities and products. We strive to contribute to the development of a dream-inspiring society by promoting evolutionary manufacturing technologies that effectively reduce the power consumption of electronic products."

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

Plant and Office Initiatives

Renewable Energy Initiatives

We have set a medium-term environmental goal of 100% renewable energy sources at our plants and offices by fiscal year 2031. In fiscal year 2022, we began introducing renewable energy (electricity) at our sites in Japan, U.S. and China, bringing our use of renewable energy company-wide to 60%. As a result, CO_2 emissions dropped by 49% from the base year of fiscal year 2019.

■ **Example initiative**

At Tokyo Electron Miyagi (Taiwa) and Tokyo Electron Technology Solutions (Fujii, Hosaka), monitors displaying the energy profile of renewable energy generated from solar panels have been set up at the entrances to the plants. At Tokyo Electron Kyushu (Koshi), renewable energy generation initiatives are being promoted, such as the sale of generated energy. In fiscal year 2022, a total of 3,890 MWh of renewable energy was generated in Japan.

Initiatives to Prevent Global Warming and Save Energy

We have brought in a number of initiatives to achieve our medium-term environmental goal at plants and offices, including energy-saving cleanroom operation, setting office air-conditioning at appropriate temperatures, introducing devices that offer superior energy-saving performance and bringing in renewable energy.

In fiscal year 2022, the introduction of renewable energy (electricity) in Japan, U.S. and China made a significant contribution, and the CO_2 emitted by our energy sources[1] was 86 kilotons (49% decrease YoY). In addition, we managed to reduce by 26% YoY the amount of energy used at our plants and offices per net sales. An increase in the amount of energy used to develop and evaluate products and increase production meant that our power consumption was 377 GWh (6% increase YoY).

In fiscal year 2019, we revised[2] and shared the per-unit basis for plants and offices in Japan to more appropriate levels based on the correlation between business operations and energy. As a result, the annual sustainability goal has been achieved at 7 of the 11 total plants and offices in Japan and overseas.

1   The emission coefficient for power consumption in Japan in fiscal year 2022 uses the post-adjustment emission coefficient on a per-electricity supplier basis, while the emission coefficients for power consumption overseas uses the emission coefficients in Emissions Factors 2019 edition issued by the International Energy Agency (IEA).
2   The per-unit basis is calculated by compound weighting using data on the number of development and evaluation machines, production volume, floor space, and man-hours in each region.
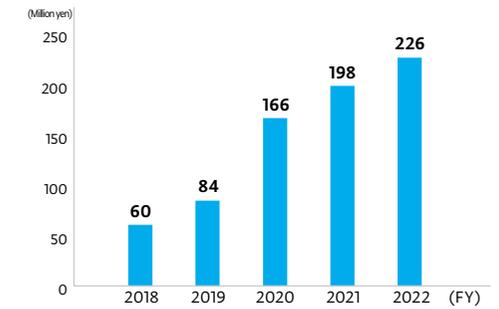
Energy Consumption and Energy Consumption per Net Sales
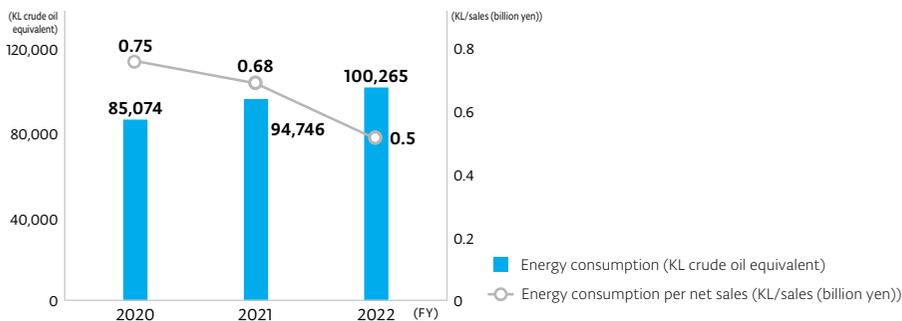
Total Reduction Effect
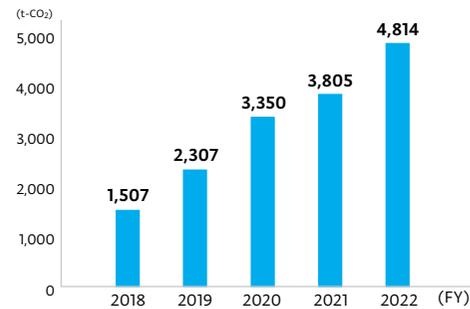
Total Reduction Amount

■ **Example initiative 1**

The introduction of a system to visualize clearly how much energy is saved at our plants and offices was completed at our major manufacturing sites in Japan in fiscal year 2022. Previously, energy consumption data had to be manually extracted and changes graphed by hand, but integrated management on the cloud has made it possible to check changes at any time. This has made it easier to check the deployment and effects of BKM* at each plant as well as study or implement measures.

* BKM: Best Known Method

■ **Example initiative 2**

Tokyo Electron Technology Solutions (Fujii) has installed equipment to reduce electrical resistance in the substation equipment of some production buildings and saved energy by reducing current loss. As a result, the power consumption of the production buildings where this equipment is installed is expected to be reduced by approximately 7% per year, and the energy-saving effect for the office as a whole is expected to be equivalent to approximately 1%.

Changes in Power Consumption

Initiatives to Reduce Water Consumption

With the growing importance of water resource preservation, we use WRI Aqueduct[1] and freshwater resource quantity indicators to conduct water risk assessments in Japan and overseas. In addition, we confirm the status of water resource use in the supply chain, rainwater and wastewater management and goal setting with suppliers once a year.

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

　During fiscal year 2022, as a consequence of the operation of new buildings and an increase in water consumption associated with product development and evaluation, water consumption amounted to 1,417,000 m^3, up 1% YoY. However, water consumption per net sales was down 29% YoY. Moreover, in terms of our goals at each plant and office in Japan and overseas, we achieved 7 of the 14 goals.

　In recognition of these efforts, we were selected as a prestigious A List company in the CDP[2] Water Security Category of the survey in December 2021.

1　WRI Aqueduct: A water risk assessment tool developed by the World Resources Institute
2　CDP: An international environmental non-profit organization (NPO) founded in the United Kingdom that conducts surveys on climate change and water security measures on private companies and municipalities and publishes the results

Water Consumption and Water Consumption per Net Sales
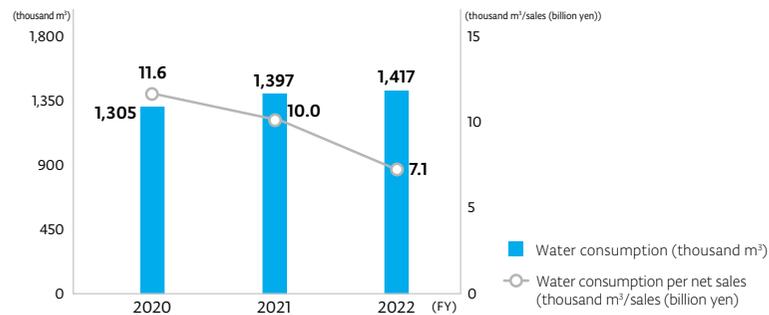
■ Example initiative

Tokyo Electron Taiwan has been actively implementing water conservation activities as a countermeasure against droughts in Taiwan in fiscal year 2022. We reduced the amount of water consumption at faucets on each floor (toilets and office kitchenettes) and for watering lawns, as well as setting air-conditioners in offices at higher temperatures and using automatic on/off functions to reduce the amount of water used for cooling. As a result, we managed to reduce the amount of water consumption by an estimated 20 m^3/day. These activities resulted in an 11% reduction in water consumption in fiscal year 2022 compared to fiscal year 2021.

Initiatives to Reduce Waste

As part of its initiatives to reduce waste, we are striving to limit the amount of waste generated and recycle. In addition to participating in the electronic manifest system[1] to ensure proper waste management, we promote maintaining an appropriate amount of parts inventory, reusing cushioning material and waste separation activities. Furthermore, we are working to reduce waste processing costs by modifying space used for storing waste to increase storage capacity and reduce the frequency of collection.

　As a result of these initiatives, in fiscal year 2022, we generated 270 tons of incinerated and landfill waste, and the recycling rate[2] was 98.1%, achieving our goal of maintaining a recycling rate of 97% or higher for the 16th consecutive year since fiscal year 2007. In addition, we have also maintained a high level of recycling of 91.0% at our overseas plants and offices.

1　Electronic manifest system: A system for electronically tracking the flow of industrial waste instead of using paper-based manifests (i.e., paper forms for tracking industrial waste). The system uses a communications network of data processing centers, businesses that generate waste, and waste collection/disposal companies.
2　Recycling rate: (Recycled amount / Amount of waste generated) × 100

■ Example initiative

Tokyo Electron Technology Solutions (Tohoku) is working to recycle materials from resin pallets used during the transportation as cargo as well as reduce the CO_2 emissions associated with the processing of these pallets.

　Previously, damaged resin pallets were crushed and recycled as the heat energy generated during the processing. However, in fiscal year 2022, the material from 20 tons of waste resin pallets was recycled by outsourcing to a processing company capable of recycling the resin pallets as raw materials. In addition, by outsourcing the recycling to a processing company closer to the office, the CO_2 emissions used to transport these materials were limited.

Product Initiatives

Products that Contribute to a Sustainable Society

Of the CO_2 emissions from our value chain, emissions during product use account for about 97%. We believe that the low energy consumption of products is important as part of our social responsibility as a semiconductor production equipment manufacturer and are working on environmentally friendly product design. In fiscal year 2022, we promoted activities based on guidelines for calculating CO_2 emissions* and a roadmap for key models to reach our annual sustainability goal of reducing per-wafer CO_2 emissions by 30% by fiscal year 2031 (compared with fiscal year 2019) for the key models of each business unit. As a result, the CO_2 emissions of equipment shipped were reduced by 10.7% compared to baseline equipment.

In addition, we use the Green Transformation (GX) Monitor, which captures information on energy use including electricity, water and nitrogen, as well as equipment operating status, and turns it into a database, to visualize energy consumption information during product use. Specifically, we have introduced a system that allows us to check equipment operating status and energy consumption information in chronological order through our intranet, and are planning to expand the scope of this system going forward.

We will continue to work to further raise environmental awareness and incorporate environmental technologies as important added value in our technological strategies, thus contributing to the reduction of the environmental impact of society as a whole.

* In addition to energy and water, the amounts of process gases and chemical substances to use, as well as footprint, volume and weight of products, are now included.

■ **Example initiative**

At the TFF Engineering Division of Tokyo Electron Technology Solutions, development is conducted with the life cycle perspective in mind. Specifically, we define product life cycle costs and clarify relationships with the effects of development elements. Additionally, we share an environmental technology roadmap with related divisions and monitor progress while developing environmental products based on this roadmap.

Product CO_2 Emission Reduction

FY2031 goal
30%

(%)

- 30
- 20
- 10.7
- 10
- 4.6
- 0

2021   2022   **2031**   (FY)
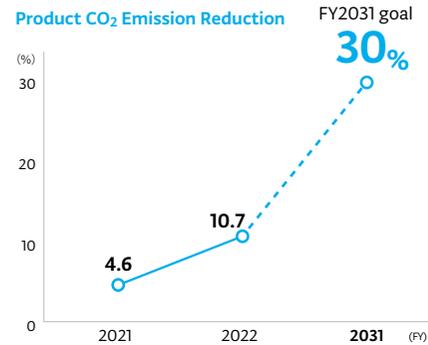
Initiatives for Product Environmental Laws and Regulations

In order to comply with each country's environmental laws and regulations pertaining to products, we promptly collect information and promote proactive responses. An example of our response to EU REACH[1] is that we conduct surveys with our suppliers as appropriate on the presence of any chemical substances in articles and disclose that information to customers. In addition, we have been introducing the chemSHERPA[2] format since fiscal year 2021 and collected information from suppliers on chemical substances in concentrations in the parts per billion (ppb[3]). As a response toward GHS[4] requirements, we provide the necessary safety data sheets (SDS[5]) and labels when supplying chemical products to customers, in addition to promoting the local procurement of chemical products.

To comply with the frequently revised environmental laws and regulations, we continue to offer "Product Environment Compliance" training to all employees, and provide suppliers with information related to the relevant environmental laws and regulations.

We will continue to grasp each country's environmental laws and regulations rapidly and strive to respond appropriately.

1   EU REACH: An EU regulation pertaining to the Registration, Evaluation, Authorisation and restriction of Chemicals
2   chemSHERPA: A data entry support tool for appropriately communicating information on chemical substances in products across the entire supply chain, and a common system for communicating information on chemical substances contained in products
3   ppb: parts per billion (1×10^{-9})
4   GHS: Globally Harmonized System of Classification and Labelling of Chemicals
5   SDS: Safety Data Sheet. Refers to the document containing hazard information about chemical substances that is issued when a company transfers or provides chemical substances, or products containing chemical substances, to another company

Biodiversity

Our business activities are supported by the benefits yielded from biodiversity. We recognize that our business activities have not an insignificant impact on biodiversity and thus carry out initiatives to conserve biodiversity. We set a single fiscal year goal of conducting ecosystem tours or conservation activities at our plants and offices in Japan at least twice a year. Results in fiscal year 2022 show that events were held a total of 16 times, attracting a total of 87 participants.

■ **Example initiative**

Tokyo Electron Technology Solutions (Tohoku) conducts surveys of the natural environment in the area surrounding the office. In fiscal year 2022, we conducted a survey to determine the impact on the growth and habitats of plants and animals caused by factors such as changes in the surrounding environment due to the construction of a new building, as well as tree-planting activities and other activities conducted by plants and offices. As a result, we confirmed that a mountain foothill-like environment with a mixture of trees, grasslands and ponds is expanding. We also confirmed that many species of plants, mammals and birds are present, and that there have been no major changes since the previous survey (2016−2017).

We will continue to maintain the rich natural environment that is home to a diverse range of organisms as well as contribute to the preservation of plants and animals throughout the entire region.

Management of Chemical Substances

We constantly monitor and manage our use and release of any chemical substances used in product development and manufacturing subject to the Japanese PRTR* law. Whenever we introduce a new chemical substance or change the way an existing substance is used, we check for environmental, health and safety risks beforehand and conduct appropriate processing after use such as by contracting expert vendors and using in-house processing facilities. In response to the Fluorocarbons Recovery and Destruction Law, we conduct simple checks, regular inspections and so on based on law in an effort to monitor the amounts of fluorocarbons filled and recovered. In fiscal year 2022, none of our plants or offices had fluorocarbon leakages requiring notification.

* PRTR: Pollutant Release and Transfer Register. A framework for tracking, tabulating and disclosing quantitative data on chemical substances that may be hazardous to human health and the ecosystem, including the amounts used and discharged into the environment and the amounts transferred (as part of waste) from the plants and offices

Environmental Communication

Our environmental policy requires that we respond appropriately to the expectations of society. We promote initiatives for the environment while engaging in ongoing communication with all of our stakeholders.

In addition, to better promote environmental communication internally, we provide an environmental program for new employees and mid-career recruits, plus a refresher program for existing employees. In fiscal year 2022, approximately 11,000 employees in Japan participated in the refresher program for existing employees. We plan to expand this program overseas in fiscal year 2023.

Green Procurement

We began implementing our Green Procurement Guidelines in January 2001 and have since promoted green procurement, prioritizing the purchase of environmentally friendly parts, products and materials, while updating the content of the guidelines as appropriate. Through these guidelines, we strive to gain the understanding and cooperation of our suppliers with respect to building environmental management systems, monitoring, reducing and disclosing information on the environmental impacts of business activities, and developing environmentally friendly products.

Logistics Initiatives

As logistics regulations are tightened from the perspective of preventing global warming and addressing climate change, there is a growing demand to reduce the environmental impact of business activities. 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, as well as promoting activities designed to reduce the environmental impact of its logistics.

Reduction Rate of Wood Use

FY2024 goal
50%

(%)
60
40
20
0

5.0 — FY2022 1Q
7.8 — FY2022 2Q
7.8 — FY2022 3Q
13.2 — FY2022 4Q
FY2031 (Goal)

For logistics in Japan, we calculate and clarify CO_2 emissions within the scope defined by the Act on the Rational Use of Energy. For logistics overseas, we calculate and clarify CO_2 emissions for both our Group companies and also for logistics in which our customers are serving as the shippers.
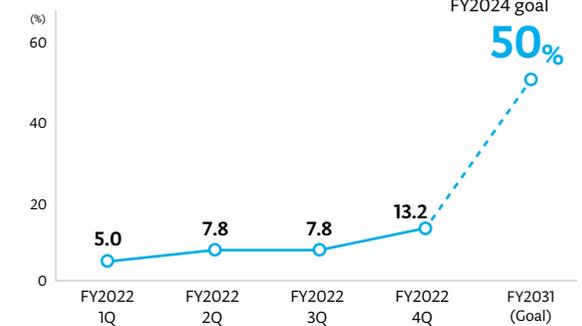
In fiscal year 2022, CO_2 emissions increased relatively both in Japan and overseas due to an increase in production and shipments. However, in logistics in Japan, we actively deployed a modal shift which resulted in a CO_2 emissions reduction of approximately 317 tons.

In fiscal year 2022, we promoted the use of reinforced corrugated cardboard packaging to achieve our annual sustainability goal set in fiscal year 2021. Reinforced corrugated cardboard is lighter in weight, which is expected to reduce CO_2 emissions during transportation. It is also recyclable and has a lower environmental impact than wood. The rate of reduction of wood use was 9% in fiscal year 2022, and 13% for the quarter from January to March 2022.

In fiscal year 2023, we set a new annual sustainability goal to further promote modal shifts and joint delivery and reduce CO_2 emissions of overall logistics (own delivery) by 10% (by fiscal year 2027) and are developing activities that contribute to the achievement of this goal.

* Modal shift: Efforts to transform the means of transportation. Refers to the shift of transportation from car and air to rail and ship, which have lower environmental impacts.

Supply Chain Management

Principles and System of Supply Chain Management

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

To identify issues in the supply chain from a variety of perspectives, we also value ongoing communication with diverse suppliers, including materials suppliers that handle parts and raw materials, staffing suppliers that provide services and logistics suppliers that handle physical distribution operations. Under the leadership of the CEO, any identified issues are shared with relevant divisions and efforts are made to implement concrete measures for improvement.

We will continue to strive to create value in the supply chain by working to build relationships of trust with our suppliers, who support our business as partners, and by working together to conduct operations in compliance with global standards.

Initiatives in the Supply Chain

Sustainability Operations

To keep track of our suppliers' engagement in sustainability, we have conducted a sustainability assessment in areas such as labor, health and safety, the environment and ethics since fiscal year 2014. We analyze the assessment results, provide feedback to suppliers and together, promote initiatives for improvement as required. In fiscal year 2019, we completely revised the content of the survey based on audit standards stipulated by the RBA, and in addition to materials[1] suppliers, included staffing[2] and logistics[3] suppliers in the scope of surveys.

In fiscal year 2022, we confirmed surveys and conducted that suppliers had implemented measures to prevent any reoccurrence of cases of false reporting that were identified in the previous year's assessment and making efforts for improvement, including establishing committees to oversee these measures.

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.

Supply Chain Sustainability Process

Plan	**Do**	**Check**	**Act**
Formulation of supply chain policies	Notification of requests to our suppliers and appeal for sustainability activities	Implementation of supply chain sustainability assessment and analysis of response	Provision of feedback based on the results and requests for improvements to suppliers

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

Responsible Procurement of Minerals (Conflict Minerals)

We see taking action against conflict minerals (3TG[1]) 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 materials using the CMRT[2] and referring to the OECD[3] Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. In fiscal year 2022, we conducted our eighth annual survey on potential conflict minerals. As a result, we were able to identify 243 RMAP[4] conformant smelters, providing us confidence that 3TG sourced from these smelters were conflict-free. In addition, none of the materials we procured were found to contain 3TG involved in conflict.

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

Procurement BCP

As part of our business continuity plans (BCPs), we collaborate with suppliers on ongoing disaster preparation.

We maintain a database of suppliers' production sites so that if a crisis arises, we can promptly identify impacted suppliers and quickly collaborate in recovery efforts. During fiscal year 2022, approximately 24,000 supplier sites were registered, and we conducted 11 post-disaster impact surveys.

In addition, we conduct BCP assessments* on our suppliers and analyze their responses to provide them with feedback so that they can promote improvements in areas of concern. The fiscal year 2022 assessment identified a 24% improvement in the overall rating level and a 51% improvement in the overall raw score compared to the previous year.

* BCP assessment: Surveys have been conducted since fiscal year 2013 on suppliers accounting for more than 80% of our procurement spend.

Percentage of Supplier Sites by Country (FY2022)

- Taiwan 1.3%
- Malaysia 1.2%
- U.S. 1.9%
- Others 4.8%
- China 3.9%
- Japan 86.9%