

# Management foundation

Medium-term goals

## Build a management foundation for increasing value

In its pursuit of more highly effective governance, Tokyo Electron (TEL) is working to further improve its corporate governance framework, strengthen its risk management, and ensure thorough compliance. Our aim is to enhance the supervisory and oversight roles of management and improve corporate value in the short term, but also in the medium to long term. In terms of practical initiatives for respecting human rights, based on our Human Rights Policy, which summarizes our group-wide guiding principles on human rights, as well as implementing extensive education and awareness-raising efforts, we are expanding human rights due diligence (impact assessment and remediation) and grievance processes. As for supply chains, we are promoting activities in compliance with global standards to achieve sustainable operations together with customers and suppliers. Regarding problems of climate change and abnormal weather, which have increased in severity in recent years, endeavoring to preserve the global environment, we have been working hard to achieve the medium- and long-term environmental goals for our products, factories, and offices in order to reduce environmental impact along our entire value chain. As we aim to further enhance corporate value, we are endeavoring to build a strong and sound management foundation that supports our whole group's business activities.

### Main activities



- Corporate governance**  
Supervision and evaluation of strategic decision-making, Process for evaluating the effectiveness of the Board of Directors and management issues, Investor relations activities, etc.
- Risk management**  
Risk management system and initiatives, Auditing by the internal audit department, etc.
- Compliance**  
Compliance system, Compliance initiatives
- Respect for human rights**  
Approach to human rights, Human rights initiatives
- Supply chain management**  
Initiatives in the supply chain, etc.
- Environmental management**  
Initiatives to prevent global warming and save energy, Initiatives to reduce water consumption, Initiatives to reduce waste, Management of chemical substances, etc.

### SDGs initiatives

- Steadily developing highly effective governance and establishing a solid management base in order to contribute to the development of sustainable society in order to improve corporate value
- Promoting compliance as an important business strategy, and developing operations in consideration of the environment and human rights, in order to contribute to the creation of a fair and equal society



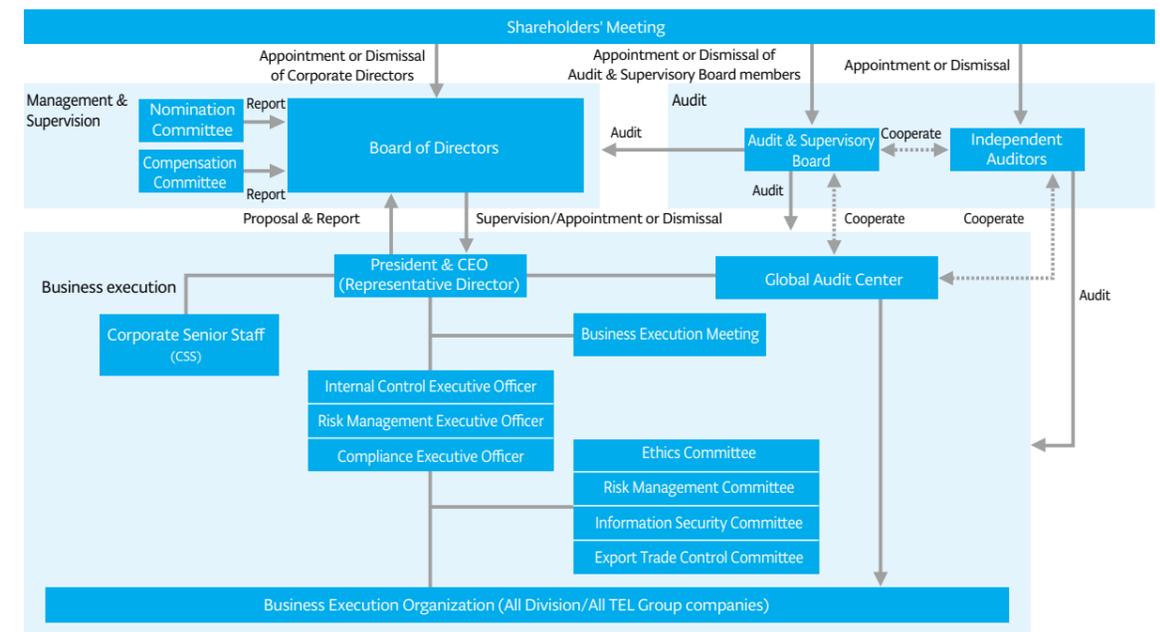
## Corporate governance

### Corporate governance framework

Tokyo Electron (TEL) upholds the vision of being "a truly global company generating high added value and profits in the semiconductor and flat panel display industries through innovative technologies and groundbreaking proactive solutions that integrate diverse technologies." In an environment where over 80% of our sales come from overseas, we regard building governance structure as essential in order to become a real global company that achieves success in global competition and achieves sustainable growth. To that end, TEL has built a framework to maximize use of worldwide resources, and has worked to incorporate a wide range of opinions to strengthen our management platform and technology base, establishing a governance structure capable of ensuring that TEL attains global-level earnings power.

TEL uses the Audit & Supervisory Board System, which consists of a Board of Directors and an Audit & Supervisory Board, and has achieved effective governance based on the supervision of management by the Audit & Supervisory Board. Furthermore, in addition to the Board of Directors, whose role is to make major operational decisions and play a supervisory role in the execution of those, and support appropriate risk-taking by executive management, we have established systems that will facilitate growth-oriented governance directed at sustainable growth for TEL, including the following: (1) The Nomination Committee and Compensation Committee to ensure fair, effective, and transparent management; (2) The Corporate Senior Staff (CSS) to formulate and advance company strategy; and (3) The Business Execution Meeting, to play a role in deliberations of the executive management.

Diagram of the corporate governance framework, internal control system, and risk management framework



### Sustainability of a Board of Directors appropriate for resolution of management issues

Based on an effective governance structure that supports increasing corporate value over the medium- to long-term, the Board of Directors is capable of properly supervising and evaluating (monitoring) the strategic decision making of the management responsible for business execution. The CEO and Representative Directors will play the primary role in continually anticipating candidates for succession, primarily from among executive officers, and working to develop such candidates in order to develop human resources who will assume management of operations in the next generation to support the sustainable growth of TEL. The CEO and Representative Directors continually evaluate the skills, character, dignity, and insight of successor candidates from multiple perspectives in the course of performing day-to-day duties, and continually support education of the candidates through assignment, training, and other opportunities.

Meanwhile, to supervise the soundness of management by the Board of Directors, the Audit & Supervisory Board has developed a structure that enables its board members to obtain sufficient information necessary for audits through on-site surveys conducted by the full-time Audit & Supervisory Board members as well as appropriate coordination with the internal audit department and independent auditors. In addition, as advisory bodies, the Nomination Committee and the Compensation Committee make proposals to the Board of Directors regarding the election of candidates for the management team and compensation, thereby ensuring fair, effective, and transparent management.

We operate the Board of Directors under the system described above to maintain the sustainability of the Board of Directors appropriate for resolving management issues.

### Skills and diversity of the president and the management

In electing executive directors, the Nomination Committee places importance on, among others, superior execution abilities underpinned by experience, insight, and a track record in management, high sensitivity to all possible risks, and being able to properly analyze and judge matters and frankly state the opinion that they believe to be correct during debates. At the same time, in order to ensure constructive debate in Board of Directors meetings born out of a broad range of backgrounds and knowledge, the Committee proposes personnel with an in-depth knowledge of various divisions as corporate director candidates to the Board of Directors, taking into consideration the balance between Sales and Service, Manufacturing, R&D, and Corporate Administration.

The role of Executive Directors does not end with referring and explaining proposals as the representative of each division. They also contribute to active debate, proper decision-making, and supervision of execution through objective, constructive opinions coming from different perspectives of each Corporate Director.

### Skills and diversity of outside directors

Independent outside directors and outside Audit & Supervisory Board members state their unreserved opinions from an independent perspective so that the debates do not follow the same line of discussion proposed by internal corporate directors. By doing so, they play the role of guiding Board of Directors debates in the proper direction to win global competition. In electing independent outside directors and outside Audit & Supervisory Board members, we place importance on maintaining a good balance among human resources who have qualities such as knowledge of global business; broad insight into related industries; an extensive network of personal contacts; social viewpoints; objectivity from the perspective of the capital market and others; knowledge of finance and accounting; and broad legal knowledge.

### Supervision and evaluation of strategic decision-making

Setting the strategic direction of the TEL group is recognized as the main role of the Board of Directors. It engages in constructive debate of management strategy, management plans, and other matters that have been debated by the Corporate (CSS). It serves as the venue for supervising progress on the Medium-term Management Plan and other matters. The Board of Directors also seeks reports and explanations on the status of deliberations at the Business Execution Meeting to monitor whether decision making by executive management functions properly in relation to matters for which approval authority has been delegated to executive management.

At Board of Directors meetings, independent outside directors and Audit & Supervisory Board members actively provide advice and ask questions to the explanations and statements made by executive directors well versed in business. The combined perspectives of both parties have enabled the Board of Directors meetings to achieve an appropriate sense of productive tension and constructive discussions that are essential for business execution decisions and supervision.

To obtain appropriate advice and questions from independent outside directors and Audit & Supervisory Board members, the administrative office provides them with explanations on proposals in advance of the Board of Directors meeting as needed. For matters of particular importance, we establish a venue for dialog between independent outside directors and Audit & Supervisory Board members and TEL executive management, striving to provide sufficient information to, and engage dialog with, independent outside directors and Audit & Supervisory Board members.

### Policies for allocation of earnings

TEL's basic approach is for appropriate allocation of company earnings to all stakeholders.

Our basic policy of allocation to shareholders is to link dividend payments to business performance on an ongoing basis and maintain a payout ratio of around 50% based on net income attributable to owners of the parent company. Furthermore, in light of stable distribution of dividends, we also set the minimum full-year dividend at 150 yen per share.

TEL effectively uses internal capital reserves to raise corporate value through earnings growth by concentrating investment in high-growth areas and provide returns directly to shareholders by linking dividend payments to business performance and earnings. Furthermore, TEL flexibly considers implementing share buybacks as part of shareholder returns.



\* Annual DPS of not less than 150 yen

\* Review dividend policy if the company does not generate net income for two consecutive fiscal years.

### Planning and outcomes of the director compensation system

As its basic policies on executive compensation, the TEL group emphasizes (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; and (3) Securement of transparency and fairness in the decision process of compensation and appropriateness of compensation. Compensation for internal corporate directors consists of fixed basic compensation, annual performance-linked compensation, and medium-term performance-linked compensation.

For outside directors, TEL introduced non-performance-linked stock-based compensation, starting for fiscal year 2020, while abolishing the annual performance-linked compensation (cash bonuses). As a result, compensation for outside directors now consists of fixed basic compensation and non-performance-linked compensation. Compensation for Audit & Supervisory Board members consists solely of fixed basic compensation in consideration of their role being primarily the audit and supervision of management.

In order to secure transparency and fairness in management and appropriateness of compensation, the Compensation Committee, which is chaired by an independent outside director, utilizes advice from an external expert, performs an analysis of wage levels and other compensation compared to industry peers in Japan and overseas. The Committee then proposes to the Board of Directors a compensation system that is globally competitive and most appropriate for the TEL group, and individual compensation amounts for the Representative Directors.

#### Fixed basic compensation

Fixed basic compensation has been established in reference to the compensation standards of industry peers in Japan and overseas, with the scale of job responsibilities based on the job grade framework provided by the external specialist organization.

#### Annual performance-linked compensation

Annual performance-linked compensation consists of cash bonuses and stock compensation-based stock options. It is profit-sharing compensation that is linked to the business performance in the relevant fiscal year. Actual net income attributable to owners of parent and actual consolidated ROE performance are incorporated in the formula.

#### Medium-term performance-linked compensation

Medium-term performance-linked compensation is performance share (stock-based) compensation designed to encourage corporate directors to share a shareholder perspective by holding TEL shares and raise their awareness toward enhancing corporate value. The number of TEL shares awarded to each corporate director varies according to the payout rate based on their respective responsibilities and performance goal achievement levels for the three-year coverage period. Consolidated operating margin and consolidated ROE have been adopted as the indicators for measuring the performance goal achievement levels that are linked to the Medium-term Management Plan.

#### Non-performance-linked (share-based) compensation

Non-performance-linked compensation is share-based compensation applicable to outside directors. It has been introduced for the purpose of making the compensation system for outside directors more consistent with their expected role of giving advice to the management from the perspective of increasing corporate value over the medium to long term and in addition to their duties of supervising management. Under this share-based compensation system, TEL shares are granted after the expiration of the period covering three fiscal years.

### Process for evaluating the effectiveness of the Board of Directors and management issues

TEL discusses and evaluates the effectiveness of the Board of Directors every year in accordance with the TEL Corporate Governance Guidelines. In fiscal year 2020, we again conducted a questionnaire of all corporate directors and Audit & Supervisory Board members regarding major items for evaluating the effectiveness of the Board of Directors, the Nomination Committee, and the Compensation Committee. In addition to the results of this questionnaire, opinions exchanged and deliberations held mainly by outside directors and outside Audit & Supervisory Board members were shared with the whole Board of Directors. In this way, we deliberated on and comprehensively evaluated the effectiveness of the Board of Directors. Regarding this questionnaire, in an effort to obtain highly objective supervisory insight and evaluation, we seek perspective and input from external consultants, and analyze the results. Issues identified through such analysis and evaluations are discussed in depth by the Board of Directors, and efforts are taken to make improvements as appropriate.

In fiscal year 2020, gender diversity increased in the composition of the Board of Directors, and the appropriate ratio of outside directors was also discussed by the Board of Directors. Moreover, we held off-site meetings, aside from Board of Directors meetings, where matters that are important in the medium to long term were predominantly discussed, such

as management strategy, risk management, group governance, and CSR. With regard to the Compensation Committee, an outside director was appointed as chairman to improve its independence. Discussions at the Compensation Committee regarding the topic of what executive compensation should be going forward, as well as discussions at the Nomination Committee about succession plans, were both shared with the Board of Directors.

We believe that, under the systems described above, our Board of Directors ensure, with a high level of effectiveness in general, that they appropriately fulfill the major roles of the Board of Directors prescribed in the TEL Corporate Governance Guidelines, such as “indicating the management strategy and vision” and “making major operational decisions based on strategic direction.” We also recognize that other bodies, establishing the Nomination Committee and the Compensation Committee, function effectively.

Based on the results of the evaluation of effectiveness conducted this time, TEL’s Board of Directors strives to secure sufficient opportunities and time to discuss our medium-to-long-term management strategies fully. It will also work on further strengthening TEL’s risk management system and group governance. With regard to the Nomination Committee, we will consider the relationship of the Committee and the Board of Directors, while conducting a review toward an appropriate member composition in order to increase the objectivity of the Committee. Moreover, we will strengthen dialog with our stakeholders, with ESG and SDGs in mind.

### Investor relations (IR) activities

At TEL, we understand that appropriate information disclosure and dialog with capital markets improve management transparency and contribute to improved corporate value, so our senior management is actively involved in IR activities. The Chairman of the Board of Directors and president act as spokespeople when necessary at Japanese and overseas IR conferences and individual interviews to ensure two-way communication with capital markets. The IR Department, which was established under the direct control of the president, also regularly reports capital market feedback to senior management to help inform management decisions.



Annual Report

## Risk management

### Approach to risk management

Reflecting changes in society and the business environment, the risks facing businesses are growing increasingly complex and diverse. Tokyo Electron (TEL) considers understanding and appropriately addressing the risks that it may face in its businesses, as well as their impacts, to be essential to its sustainable growth.

### Risk management system and initiatives

In order to promote more effective risk management, TEL carries out enterprise risk management\* through a body established within the General Affairs Department at its headquarters. This body works with the respective departments responsible for each operation to identify a wide range of risks arising in corporate activities (such as compliance risk, human resource and labor risk, and business continuity risk). It then classifies risks with high impact and probability as key risks within the TEL group. The body also formulates and executes measures to minimize these key risks, monitors the effect of said measures, works to understand the status of risk control, and implements the PDCA cycle for risk management. In fiscal year 2020, in addition to these activities, the body conducted interviews with the responsible departments at the corporate headquarters, and Japanese and overseas subsidiaries to understand the status of risk management. From fiscal year 2021 onward, it also plans to enhance the various functions and systems of risk management and internal audits to further promote highly effective risk management activities. The status of these activities is regularly reported to the Board of Directors and the Audit & Supervisory Board.

### Auditing by the internal audit department

The Global Audit Center serves as the internal audit department for the entire group and implements audits based on the audit plan. Based on the results of these audits, it provides instructions for making improvements as needed, confirms the progress of these improvements, and provides any necessary support. The group’s internal control over financial reporting in fiscal year 2020 was also evaluated as effective by the independent auditors.

\* Enterprise risk management: Group-wide systems and processes related to risk management activities

### Risk management initiatives

Each year, TEL identifies key risks for the group and steadily works to reduce those risks. In fiscal year 2020, we reinforced measures in the following areas<sup>1</sup>.

#### ■ Environment

With climate change and abnormal weather becoming an urgent issue on a global scale, it is becoming increasingly important for companies to comply with environmental laws and regulations, and industry codes of conduct, and to reduce environmental impacts throughout the value chain. In addition to initiatives to reduce the environmental impacts of its products, factories, and offices, to help achieve its medium- to long-term environmental goals, TEL is working to reduce operating costs and create business opportunities related to the environment, including the provision of production technologies for developing more energy-efficient devices. We are also promoting environmental management across the entire company. We have also declared our support of the TCFD<sup>2</sup> recommendations and analyzing and disclosing the impacts and opportunities of climate change on our businesses in line with the international framework.

#### ■ Human rights

In our global society, human rights issues such as inequalities, discrimination, and forced labor are becoming increasingly serious. At the same time, it is becoming more important for companies to conduct sustainable operations by eliminating human rights-related business risks and respecting the rights of the people behind their business activities. While clarifying its approach to human rights, identifying human rights risks, and implementing corrective actions in accordance with the United Nations Guiding Principles on Business and Human Rights, TEL is making further improvements to its reporting systems and other grievance mechanisms. We are working to ensure such human rights as freedom, equality, non-discrimination, freely chosen employment, health and safety, and working hours. We are incorporating respect for human rights in every aspect of our business activities. In this way, we are striving to further improve employee engagement and create new value.

#### ■ Research and development

To maintain a competitive advantage and continue growing in markets where technological innovation is rapid, it is important for businesses to continuously create innovation and to provide high value-added products and services. While actively investing in research and development of leading-edge technologies to enhance its own research and development capabilities, TEL is also focusing on collaboration with Japanese and international consortiums. In addition, we are sharing technology roadmap with our customers and collaborating with them in the early stages of development to ensure our research and development activities properly reflect future needs. Going forward, we will continue to drive technological development for the next generation through a group-wide development structure for collaboration between the Development & Production Divisions and Business Divisions.

#### ■ Supply chain management

For manufacturers of semiconductor and flat panel display production equipment, implementation of sustainable supply chain management is an essential part of such activities as development, production, and providing services. To prepare for disruptions to the procurement of important parts or production due to earthquakes or other natural disasters, TEL works, on an ongoing basis, to establish alternative production structures within its network and to develop a multi-source system for important parts. Furthermore, in addition to formulating business continuity plans (BCPs) and holding regular drills, we are building seismically isolated production buildings, adopting appropriate inventory controls, and taking other steps to establish stable product supply systems.

#### ■ Information security

With information security becoming increasingly important as more and more of society is data-driven, it is equally important that companies work to improve their information literacy and build robust information infrastructure. TEL is focusing on information security risk from the two perspectives of cybersecurity and confidential information management. To improve cybersecurity, we use a combination of industry-leading security systems, providing security training for employees, and work to protect our information from the sabotage of our servers or computers as well as data theft, data manipulation and other forms of cyberattacks. The information security environment, including cyberattack methods, is continually changing. TEL is always working to stay ahead of these changes and formulating and implementing the necessary countermeasures on a global basis. To improve confidential information management, our Human Resources Department and Intellectual Property Department work in close collaboration to strengthen measures to prevent leaks of confidential information, particularly targeting employees who retire or resign to ensure proper management of confidential information, including the return and destruction of data.

<sup>1</sup> Refer to p. 45 for information on reinforced measures for compliance risk.

<sup>2</sup> TCFD: Refer to p. 8 for TCFD.

Compliance

Approach to compliance

Stakeholder trust is essential to business activities. In order to maintain this trust, it is essential to continuously ensure compliance and enhance corporate ethics. The Code of Ethics of the Tokyo Electron group establishes the “appropriate actions to be taken” in conducting business operations in an honest and fair manner in accordance with the laws and regulations of the countries and regions in which the Tokyo Electron (TEL) group operates as well as with internal regulations and rules, and stipulates that all executives and employees must understand and apply the Code of Ethics.

Compliance system

In order to strengthen our compliance system and to ensure efficacy, people responsible for compliance (Regional Compliance Controllers) have been appointed at key overseas sites, creating a system for direct reporting to the newly established Chief Compliance Officer and Compliance Department. The primary role of the Compliance Department is to formulate and review practical compliance programs for the TEL group, establish and implement corporate ethics, plan and implement education and training, and establish and operate internal reporting systems.



Compliance initiatives

Corporate ethics

In addition to establishing the Code of Ethics as common and minimum standards of conduct by which all executives and employees should abide, we have also established a Business Ethics Committee for the purpose of promoting and raising awareness of compliance and corporate ethics more effectively within the TEL group. We have also set up the Disciplinary Committee as a subordinate organization of the Business Ethics Committee for the purpose of ensuring that reasonable and appropriate punishments are imposed, and proper procedures followed when taking disciplinary action.

To ensure awareness of the Code of Ethics, we arrange to translate it into five languages for local use, including Japanese, and distribute it in the form of a booklet to all executives and employees. In May 2020, the Code of Ethics was revised. In addition to reflecting standards required as a global company, we added a number of new provisions on such important issues as personal data protection, information security, and money laundering. The revisions, including changes to the booklet design and adoption of a bullet point format, were made in pursuit of clarity and usability. We strive to further strengthen compliance and corporate ethics by annually obtaining confirmation from all executives and employees that they understand and comply with the Code of Ethics.



Code of Ethics

Global policies on anti-bribery and competition laws

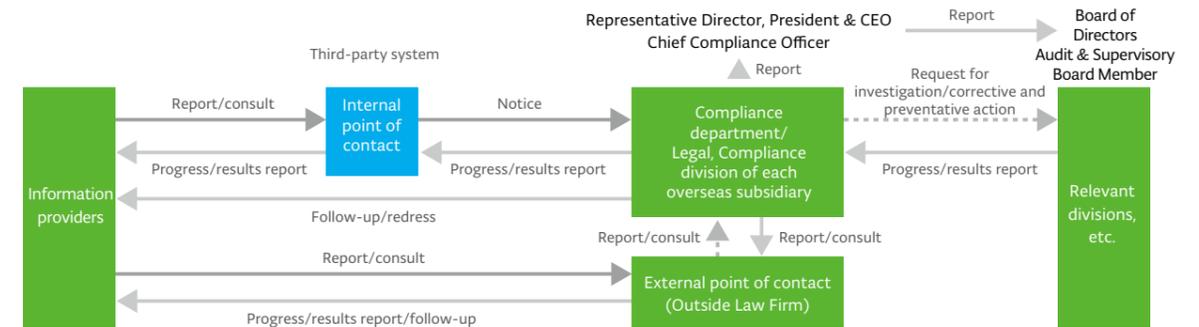
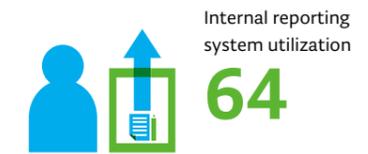
In fiscal year 2021, we will establish common global policies on anti-bribery and competition laws. Under our anti-bribery policy, we reviewed our standards concerning gifts, entertainment, and donations, and we thoroughly enforce a process requiring preapproval if undertaking conduct outside these standards. As for our policy on competition laws, we have compiled 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<sup>1</sup>. In fiscal year 2021, we will deploy a more comprehensive and systematic training program and advance multilingual support to reinforce efforts to foster compliance awareness and behavior-oriented awareness-building activities in the TEL group.

Internal reporting system

As a means for employees to provide information and seek redress outside the chain of command about behavior that is, or may be, in violation of laws, regulations, or corporate ethics, we have established internal reporting mechanisms that ensure confidentiality, anonymity, and the prohibition of retribution. Apart from an internal point of contact that can also be accessed by suppliers, our reporting mechanisms include an external point of contact at a law firm that can be contacted directly. In March 2020, we enhanced the internal reporting system, and renamed TEL group Ethics & Compliance Hotline—a global common point of contact that uses a third-party system—thereby ensuring a greater level of confidentiality and anonymity. This hotline can be accessed via phone or a dedicated website 24 hours a day, 365 days a year, and accommodates all languages used by employees.



In the event of a report or request for advice, the TEL group undertakes an investigation in accordance with internal regulations. If, as a result, a compliance violation is found, a disciplinary action is imposed in accordance with the Rules of Employment<sup>2</sup>. Preventive measures and corrective measures, such as improvements to the workplace environment, are also implemented as necessary.

In fiscal year 2020, a total of 64 cases were received via internal reporting mechanisms (excluding overseas subsidiaries), primarily concerning harassment, attendance management, and work environment. Among these, there were no reports or cases of non-compliance with laws, regulations, or the Code of Ethics that could have had a material impact on the TEL group’s business or local communities.

Respect for human rights

Approach to human rights

URL [www.tel.com/csr/employee/diversity/](http://www.tel.com/csr/employee/diversity/)

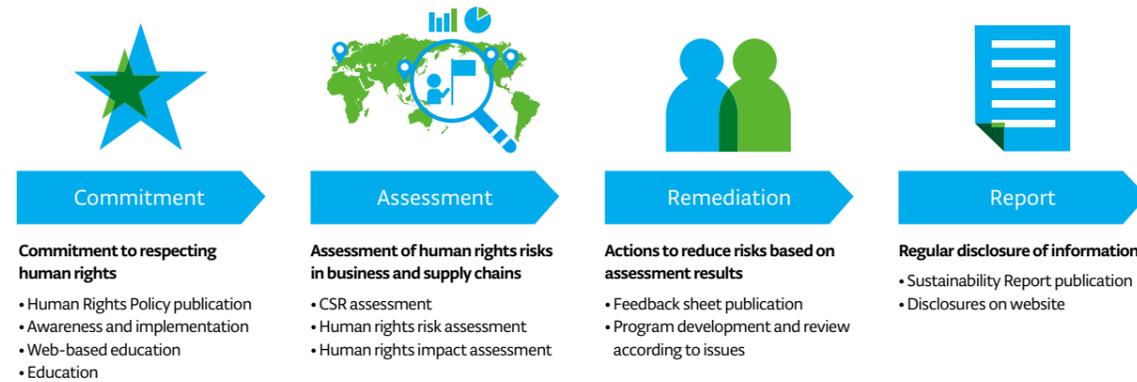
Conscious of its corporate social responsibility, Tokyo Electron (TEL) recognizes that it is important to conduct itself with a strong sense of integrity. Based on this recognition, TEL has firmly upheld human rights since its founding, as reflected in the spirit of its Corporate Philosophy and Management Policies. For TEL, respecting human rights means a significant undertaking, not only to fulfill its responsibility for eliminating adverse impacts on people caused through business activities, but to respect those people who support the company’s business activities, and contribute to the realization of a sustainable, dream-inspiring society. TEL incorporates the concept of respect into every aspect of its business activities, and strives to nurture a dynamic corporate culture where each person can realize his or her full potential.

<sup>1</sup> Training and seminar topics include basics of corporate ethics and compliance, anti-corruption, export compliance, insider trading prevention, the Act for Subcontracting, and the prevention of harassment. Some training is limited to certain employees.

<sup>2</sup> 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 his/her own volition.

Human rights initiatives

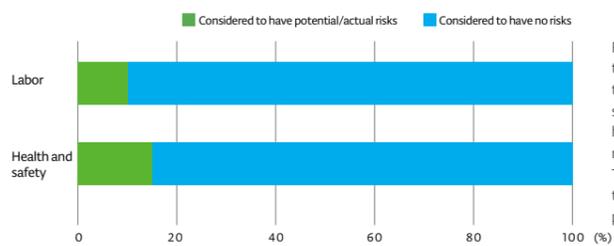
In fiscal year 2018, TEL formulated its Human Rights Policy, summarizing its approach to human rights. TEL has specified the human rights it believes are particularly important in business activities as Freedom; Equality & Non-Discrimination; Freely Chosen Employment; Product Safety & Workplace Health 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<sup>1</sup>.



TEL is focusing on ensuring awareness and implementation of the Human Rights Policy internally and by suppliers. In fiscal year 2019, we published the policy on our website and made it available for everyone inside and outside the company, and implemented an online human rights education program targeting all TEL executives and employees.

In fiscal year 2020, we also conducted due diligence on human rights, conducted human rights risk surveys, and identified and assessed impacts. As part of the surveys, we utilized a self-assessment questionnaire (SAQ) for internal use based on the RBA Code of Conduct, and a CSR survey<sup>2</sup> for suppliers of materials, staffing, and logistics, to understand the current situation throughout the value chain. We are using the results of these surveys to identify and assess impacts, and to clarify and implement corrective action.

Supplier CSR survey results \* 500 employees or more



From the internal assessment results, we identified potential human rights risks in the areas of labor, and health and safety. In the area of labor, we will continue efforts to ensure working hours are in compliance with laws and regulations while further streamlining operations. In the area of health and safety, we will work to reduce human rights risks by improving relevant equipment. From the supplier assessment results, we identified potential human rights risks in labor, health and safety. Therefore, we have requested they reconfirm working hour requirements according to laws and regulations, industry codes of conduct, and take other actions, including preparing for emergencies.

TEL recognizes the importance of having highly effective grievance mechanisms and it is working to establish and operate those mechanisms. In fiscal year 2020, we further strengthened our internal and external reporting systems in Japan and overseas for employees and suppliers, and started operation.

By continuing to conduct due diligence on human rights going forward, we will assess and correct any human rights issues we identify in our business activities, and further improve the grievance mechanisms we provide.

<sup>1</sup> RBA Code of Conduct: The RBA establishes a set of standards 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.

<sup>2</sup> CSR survey: Refer to Supply Chain Management on p. 48.

Supply chain management

Supply chain principles and system

Procurement principles and system

The high-value manufacturing that Tokyo Electron (TEL) strives for is based on the functions of all materials and components that make up the products and the pursuit of high quality. TEL values communications with suppliers and seeks to grow manufacturing on a global scale with its suppliers based on ongoing trusting relationships.

We engage in procurement activities in line with our own procurement policy, which we formulated based on the laws, regulations, and social norms of each country, as well as the RBA Code of Conduct. We then disseminated it within the TEL group to suppliers. Under the leadership of the TEL Representative Director, President & CEO, as the top of the procurement system, issues identified during procurement activities are shared with the manufacturing company presidents' council and the purchasing department manager council for consideration of specific improvements.

Initiatives in the supply chain

CSR operations

To keep track of its suppliers' engagement in CSR activities, TEL has conducted a CSR Survey since fiscal year 2014. The survey is in accordance with the RBA Code of Conduct. We analyze the responses from suppliers and use them as feedback to assist with further improvement activities. In accordance with auditing standards stipulated by the RBA, the survey targets materials suppliers<sup>1</sup> from which we procure parts and raw materials. In the fiscal year 2020 survey, improvements in overall rating level were observed at 36% of suppliers and improvements in the overall raw score were seen at 56%. Also, no suppliers were engaged in any of the practices given particular emphasis in the RBA Code of Conduct, namely, child labor, forced labor, bonded labor, inhumane treatment, false reports, falsification of records, or bribery. Neither were any suppliers of a sufficient size<sup>2</sup> to be considered high risk in terms of compliance.

From fiscal year 2019, we also began surveying staffing suppliers who provide temporary employees, contractors, and other workers, and logistics suppliers<sup>3</sup> with a focus on major logistics/customs clearance operators.

Supply chain CSR process



Responsible procurement of minerals (conflict minerals)

TEL regards taking action against conflict minerals (3TG<sup>4</sup>) obtained through illegal exploitation, including sources with human rights violations or poor working conditions, an important part of corporate social responsibility. The company's resolute goal is to eliminate the use of raw materials made from these conflict minerals, as well as any parts or components containing them.

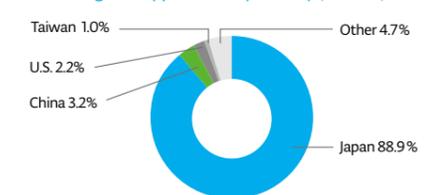
In fiscal year 2020, TEL conducted its sixth annual survey on potential conflict minerals, using the reporting template (CMRT<sup>5</sup>) developed by the RMI<sup>6</sup>. As a result, TEL identified 261 RMAP<sup>7</sup> conformant smelters, providing the company confidence that 3TG sourced from these smelters were conflict-free. None of the materials procured were found to contain conflict-affected 3TG.

Procurement BCP

As part of its Business continuity plans (BCP), TEL collaborates with the suppliers for disaster preparation. The company maintains a database of suppliers' production sites so that if a crisis arises, it can promptly identify impacted suppliers and quickly collaborate in recovery efforts. During fiscal year 2020, about 18,000 supplier sites were registered, and post-disaster impact surveys were conducted eight times.

In addition, for key suppliers accounting for more than 80% of the TEL's procurement spend, it conducts a BCP survey<sup>8</sup>, analyzes their responses, and gives the results to suppliers as feedback to promote further improvement. In the fiscal year 2020 survey, improvements in overall rating level were observed at 16% of suppliers, and improvements in the overall raw score were seen at 40%.

Percentage of supplier sites by country (FY2020)



<sup>1</sup> Surveys have been conducted since fiscal year 2014 for suppliers accounting for more than 80% of TEL's procurement spend.

<sup>2</sup> 500 employees or more

<sup>3</sup> Staffing suppliers: 100% of employment agencies and contracting companies (internal contractors)  
 Logistics suppliers: 100% of customs-related operators

<sup>4</sup> 3TG: Tantalum, tin, tungsten, and gold

<sup>5</sup> CMRT: Conflict Minerals Reporting Template

<sup>6</sup> RMI (Remote Method Invocation): An organization that inspects 3TG smelters to certify they do not have conflict minerals

<sup>7</sup> RMAP (Responsible Minerals Assurance Process): A program promoted and led by the RMI for auditing smelters/refiners that do not use conflict minerals

<sup>8</sup> BCP survey: A survey that has continuously been conducted to key suppliers accounting for more than 80% of the TEL's procurement spend since FY2013

## Environmental management

### Environmental management system

Tokyo Electron (TEL) has established two new bodies, the Council of Environmental General Managers and the TEL Corporate Environmental Council, to promote activities in the medium to long term, responding to the rising importance of environmental issues, such as climate change, and meeting the environmental/ESG needs of its customers and other stakeholders. The councils are composed of TEL representatives in charge of the environment as well as members from related division. They are responsible for reviewing our overall environmental direction and our progress in achieving our medium- and long-term environmental goals. Furthermore, to continuously improve our environmental activities, we have operated an environmental management system based on ISO 14001 since 1997, primarily at our manufacturing subsidiaries. In March 2017, we acquired multi-site ISO 14001 certification for our factories and offices in Japan that had previously acquired certification separately. Coinciding with this multi-site certification, we have developed a standardized group format for environmental impact assessments, the identification of useful environmental aspects, environmental management programs, and internal audit checklists. During fiscal year 2020, we established approximately 100 environmental goals for different levels across the entire group and carried out these improvement activities. Progress of activities and compliance with laws and regulations are confirmed through internal audits and third-party audits. Any issues identified through these activities are reviewed by the EHS Council, reported to the Manufacturing Company Presidents' Council, and reflected in environmental activities across our entire group. Under such an environment management system, fiscal year 2020 was again free from environmental incidents, accidents, violations, and associated legal proceedings.

#### ISO 14001 certified factories and offices

Company name	Factory/Office name	Certification date
Tokyo Electron	EHS Promotion Center (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
	Billerica Office*	May 2018
Tokyo Electron Korea	Balan Factory	July 2014

\* The Billerica Office was relocated in May 2020.

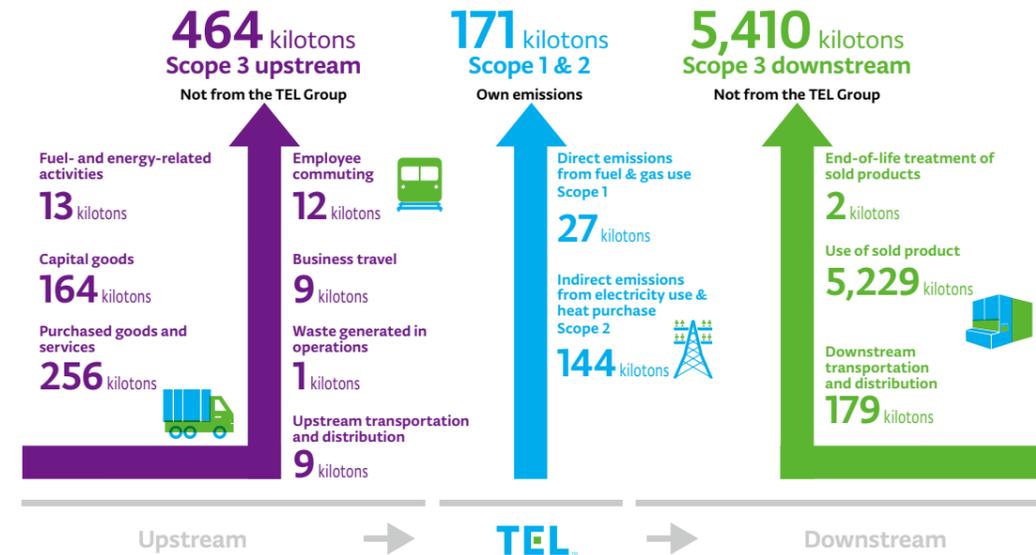
### Environmental risks and opportunities

The various issues related to the environment impact on our daily lives and the business activities of companies. Physical risks, such as rising average global temperatures, strong winds, disasters, and water shortages caused by climate change and abnormal weather, heighten the risks in business, such as damage to assets, increased operating costs, and impacts on the supply chain. In terms of legal risks, we recognize that stronger environmental laws and regulations, more stringent regulations on greenhouse gas emissions, the introduction of carbon taxes, and so on will lead to higher costs for associated measures. At the same time, promoting environmental initiatives leads to more opportunities to sell outstanding, environmentally friendly products, reduce operating costs, and further improve corporate value. As a participant in the semiconductor and flat panel display (FPD) industry, by leveraging our advanced technological prowess to create added value, we can contribute to the creation of semiconductor and FPD products with low power consumption and the building of an energy-saving society that makes the most of information technology.

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 the compliance obligations of our group. From this information, TEL has set the following as its risks and opportunities to address: (1) environmental management by reducing the environmental impact of its business activities, (2) compliance with applicable laws, and (3) enhancing product competitiveness with the environmental contribution of products.

### CO<sub>2</sub> emissions across the value chain

By recognizing environmental impact throughout the value chain, TEL develops business activities that are conscious of reducing this impact. Based on its environmental slogan "Technology for Eco Life," it aims to resolve environmental problems through leading technology and reliable services.

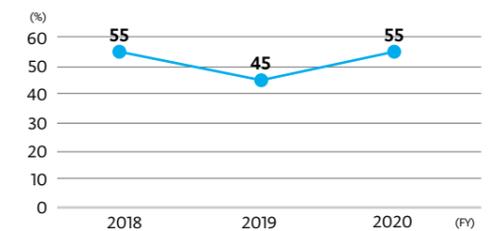


The total of Scope 1 and Scope 2 of the TEL group is 171 kilotons, while Scope 3 accounts for a total of 5,874 kilotons, which is approximately 97% of the total. TEL believes that it is particularly important to develop products with low CO<sub>2</sub> emissions during operation, as CO<sub>2</sub> emissions from the use of products sold amount to 5,229 kilotons, which is approximately 87% of the overall total.

### Initiatives to prevent global warming and save energy

Each TEL plant and office has an established goal of reducing energy consumption by at least 1% year-over-year. Initiatives to achieve this goal include energy-saving cleanroom operation, appropriate temperature settings for office cooling and heating, the introduction of highly energy-efficient equipment, and the adoption of renewable energies. As a result of these initiatives, in fiscal year 2020, we increased energy consumption per unit sales at our factories and offices by 20% year-over-year. However, an increase in its volume of production and an increase in energy consumption associated with product development and evaluation resulted in power consumption of 318 GWh in fiscal year 2020, up 4% year-over-year; and energy-derived CO<sub>2</sub> emissions\* of 144 kilotons, down 2% year-over-year. Based on the correlation between business operations and energy use, we changed to a more appropriate metric in fiscal year 2019, and have since applied it as standard at factories and offices across Japan. Specifically, we adopted a metric calculated using a complex weighting of data from each area on the number of evaluation units used in development, the number of units produced, total floor area, and staff-hours. As a result, goals were achieved at 6 out of 11 factories and offices in Japan and overseas.

Percentage of factories and offices achieving energy intensity target



Scope 1: Direct GHG emissions from use of fuel and gas owned or controlled by TEL

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

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.

\* In fiscal year 2020, the adjusted emission factors of the respective electrical power providers are used for the emission factor for electricity consumption in Japan, and the emission factor in Emissions Factors (2019 edition) published by the International Energy Agency (IEA) is used for the emission factor for overseas electricity consumption.

#### Example initiative 1

Tokyo Electron Technology Solutions (Tohoku Office) is using energy more efficiently, having put heat-insulating materials around steam pipes in boiler rooms to prevent heat from discharging. As a result, we expect to reduce our use of heavy oil by 31,000 liters a year, which will also reduce emissions of 84 t-CO<sub>2</sub>.

#### Example initiative 2

Tokyo Electron Miyagi is reusing waste oil from the staff cafeteria to produce biofuel. In fiscal year 2020, it began using this biofuel in generators and forklifts at the same site.

## Renewable energy initiatives

TEL promotes the use of renewable energies. At the Tokyo Electron Miyagi (Taiwa Office) and Tokyo Electron Technology Solutions (Fujii Office, Hosaka Office), renewable energy generated from solar panels is used to power the factories, and monitors displaying their energy profile have been set up at the entrances to the factories. At its Tokyo Electron Kyushu (Koshi Office), generated energy is sold, helping to prevent global warming. In fiscal year 2020, TEL generated a total of 3,804 MWh of renewable energy in Japan. In addition, Tokyo Electron U.S. Holdings has continued to purchase green power, 3,334 MWh, in fiscal year 2020.

## Initiatives to reduce water consumption

With the growing importance of water resource preservation in global environmental initiatives, the TEL group has established a goal of keeping water consumption at the same level or below that of the baseline year (fiscal year 2012 for factories and offices in Japan and a fiscal year of their choosing for each overseas operation). TEL's ongoing efforts to achieve these goals include reusing pure water from its manufacturing operations, installing water-saving devices, watering lawns with rainwater, and implementing the intermittent operation of cafeteria faucets.

During fiscal year 2020, as a consequence of new buildings coming online and an increase in water consumption associated with product development and evaluation, water consumption amounted to 1,305,000 m<sup>3</sup>, up 5% year-over-year. Moreover, we achieved 9 of the 13 goals in our factories and offices worldwide. It also discharged an estimated 1,078,000 m<sup>3</sup> of wastewater.

### Example initiative

At Tokyo Electron Miyagi, we have promoted a reduction in blow-off water<sup>1</sup> by installing a system in the cooling tower to prevent scale<sup>2</sup> from building up. In addition to achieving a reduction in water consumption, it is expected that introducing this system will also eliminate the need for liquid chemicals that were previously used for preventing scale build-up, and will result in less power being consumed because of an improvement in heat exchange efficiency. Other added benefits of the system are that it lengthens the life of pipes by preventing corrosion, and it reduces cleaning time by controlling algae.

## Initiatives to reduce waste

To curb the amount of waste generated and to recycle it wherever possible, the TEL group promotes initiatives to reduce waste. In addition to participating in the electronic manifest system<sup>3</sup> to ensure proper waste management, we are engaged in maintaining an appropriate amount of parts inventory and in reusing cushioning material. We are also achieving lower waste processing costs by promoting waste sorting activities, and by modifying space used for storing waste to increase storage capacity and reduce the frequency of collection. In fiscal year 2020, we surveyed waste disposal operators in Japan using a unified on-site checklist, and we shared the results. In fiscal year 2020, we generated 142 tons of incinerated and landfill waste in Japan. As a result of our waste-reduction initiatives, the recycling rate<sup>4</sup> at sites in Japan in fiscal year 2020 was 98.9%, achieving our single-year goal of maintaining a recycling rate of 97% or higher for the 14th consecutive year since fiscal year 2007. We have also maintained a high level of recycling at its overseas factories and offices of 90.3%.



<sup>1</sup> Blow-off water: Water that is drained from equipment and pipes to prevent an overconcentration of impurities in the water

<sup>2</sup> Scale: An inorganic salt compound (calcium, magnesium, etc.) contained in water, which hardens on the surface of equipment and pipes

<sup>3</sup> 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

<sup>4</sup> Recycling rate: (Recycled amount/Amount of waste generated) × 100

## Management of chemical substances

TEL constantly monitors and manages its use and release of any chemical substances used in product development and manufacturing subject to the Japanese PRTR<sup>1</sup> law. Whenever TEL introduces a new chemical substance or changes the way an existing substance is used, we check for environmental, health, and safety risks beforehand. In response to the Act on Rational Use and Proper Management of Fluorocarbons, 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 2020, none of our factories or offices had fluorocarbon leakages requiring notification.

## Biodiversity

URL [www.tel.com/csr/environment/office/](http://www.tel.com/csr/environment/office/)

In carrying out its business activities, the TEL group has a not insignificant impact on biodiversity, and yet without the benefits yielded from biodiversity, we could not sustain its activities. In recognition of this, the group will develop a framework for promoting initiatives to conserve biodiversity. In fiscal year 2020, we set a goal of conducting at least two ecosystem tours or conservation activities at our factories and offices in Japan. A total of 18 events were held, attracting a total of 368 participants.

## Green procurement

URL [www.tel.com/csr/environment/green-procurement/](http://www.tel.com/csr/environment/green-procurement/)

TEL began implementing its Green Procurement Guidelines in January 2001, and has since promoted green procurement, prioritizing the purchase of environmentally friendly parts, products, and materials. 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

URL [www.tel.com/csr/environment/product/](http://www.tel.com/csr/environment/product/)

TEL has been promoting activities designed to reduce the environmental impact of its logistics. We have been implementing a modal shift<sup>2</sup> from air to ocean transportation for the overseas shipping of our semiconductor and FPD production equipment, and at the same time, we have been working hard to reduce production lead times. We have also been endeavoring to reduce CO<sub>2</sub> emissions and costs by adopting the shelved trolleys used in shipping FPD production equipment to semiconductor production equipment, thereby improving the load factor of trucks. We are also pushing for fewer resources to be used in packaging when shipping products.

## Environmental communication

URL [www.tel.com/csr/environment/office/](http://www.tel.com/csr/environment/office/)

In promoting initiatives for the environment, TEL maintains close communication with all its stakeholders. Our environmental policy requires that we promote cooperative partnerships with our stakeholders, and respond appropriately as a company to their expectations and wishes.

In fiscal year 2020, we revamped our online environmental education programs to better promote environmental communication within us. Our online programs consist of an environmental program for new employees and mid-career recruits, plus a refresher program for existing employees. In fiscal year 2020, more than 11,000 employees attended these programs in Japan. In fiscal year 2021 and beyond, we plan to expand these education programs overseas.

<sup>1</sup> 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) off the original business's premises

<sup>2</sup> Modal shift: Efforts to transform the means of transportation