Initiatives in the Value Chain

Tokyo Electron is building a superior business model that takes advantage of our company's characteristics, and is continuing to create value through sustainability initiatives and a series of business activities.



Research and Development ▶ P. 27

Overview

- Development of innovative and unique technologies for creating high-value-added, next-generation products that will be needed by customers in the future
- Continuous development that looks into the future based on the prompt comprehension of market and technological trends, as well as customer needs

Differentiation Points

- Optimization of R&D by maintaining close collaboration between the Corporate Innovation Division and the development divisions at individual sites
- Development of leading-edge technologies through various types of collaboration with consortiums and academia in Japan and overseas
- Pursuit of development efficiency and new value creation by promoting digital transformation (DX)

Value Created

- High-value-added, innovative, and unique technologies
- Improvement in equipment productivity, such as higher throughput*, a higher utilization rate and smaller space requirements
- Equipment technology that increases environmental performance
- Throughput: Ability to process wafers over a unit of time



Overview

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

Differentiation Points

- Business expansion based on relationships of mutual trust with suppliers who possess high quality and technological capabilities
- World-class manufacturing operations through the use of our manufacturing know-how, knowledge and the equipment data we have accumulated over many years
- Aiming for productivity and efficiency by creating production systems that respond swiftly to market fluctuations

Value Created

- High-quality and high-reliability products incorporating leading-edge technologies
- Shortening of production lead times by further improving the accuracy of the production plan and increasing the efficiency of manufacturing operations

Human Rights > P. 37

Safety-first operation

Sales ▶ P. 31

Overview

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

Differentiation Points

- Early comprehension of the needs of customers based on a solid relationship of mutual trust and incorporating those needs into product development
- Ability to suggest solutions by taking advantage of a wide range of product lineup and to satisfy a broader range of customer needs with used equipment and re-engineered equipment
- Continuous initiatives to improve the customer satisfaction level

Value Created

- High-value-added products incorporating innovative technologies by simultaneous parallel evaluation of four technology nodes
- Products that address a variety of applications, as well as used equipment and re-engineered equipment
- Customer responsiveness based on the deployment of global operations

Sustainability Initiatives in the Value Chain

- Environment > P. 35
- Safety > P. 37
- Continuous Improvement of Business Operations > P.42 Corporate Governance > P.43
- Information Security ▶ P. 51 Engagement with Capital Markets ▶ P. 52

- Supply Chain Management > P. 39
- Compliance P. 48
- Evaluation from Third-party Institutions > P. 52





Quality > P. 41

Risk Management > P. 49

■ Human Resources ▶ P.40

Value Chain Initiatives Research and Development

We are taking on the challenge of developing our own unique technologies through basic and applied R&D as well as through utilizing in-house and outside knowledge, while always remaining conscious of the most current customer needs.

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

Key Themes for Medium- to Long-term Value Creation

- Timely development of high-value-added technologies and products through promotion of Shift Left*
- Creating innovative and unique technologies for manufacturing leading-edge semiconductors and FPDs
- Increasing investment in human resources and development
- * Shift Left: A method that tests performance and quality from an early stage of the development life cycle to reduce reworking in the latter stages

Management Resources to Be Invested R&D investment over three years, beginning in fiscal 2020 R&D sites 12 (6 in Japan and 6 overseas)

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

Primary Management Indicators









Sustainability Initiatives

- **Initiatives related to product environment P.35** Medium- and Long-term Environmental Goals
- Future-oriented development of environmental technologies
- P.36 Initiatives Related to Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
- Structure to promote innovative development that takes advantage of global diversity P.40 Diversity and Inclusion
- Development efficiency improvement through the promotion of DX P.42 Continuous Improvement of Business Operations

Risk Management Initiatives

		Main Risks	Initiatives
	Research and Development	Declining product competitiveness	 Established the Corporate Innovation Division, and built a Group-wide development framework that integrates innovative technological development with the technologies of each development division Provide highly competitive next-generation products ahead of competitors through collaborating with research institutions and sharing a technology roadmap spanning multiple generations with leading-edge customers
	Intellectual Property Rights	Declining product competitiveness Occurrence of liability for damage	Advance the R&D strategy, business strategy and intellectual property strategy in an integrated manner to build an appropriate intellectual property portfolio
Human Resources		Diminished product development capability or customer support quality	Make ongoing improvements to work environments and promote health and productivity management, including having top management share direction through regular employee meetings, establishing training plans for the next generation of human resources, visualizing career paths for employees and offering attractive remuneration and benefits

Main Research and Development Initiatives

Strengthening Research and Development Capabilities

One of the important themes that we uphold is continuous creation of high-value-added, next-generation products that will be needed by customers in the future. To make this happen, we have a duplex structure for development. The development divisions at individual sites and the Corporate Innovation Division jointly promote both the progress and improvement of technology in both the areas they manage and newer areas, collaborating where necessary while maintaining their respective individuality.

The development divisions at individual sites are focusing on improving functions in the product areas they manage as well as in

Global Alliance

To promptly comprehend leading-edge technological trends and link them to stronger R&D capability and productization, we are advancing various types of collaboration with consortiums and academia in Japan and overseas.

With research institutes and universities in Japan, we are primarily developing basic and fundamental technologies. In Europe, we are conducting joint research at leading-edge research facilities at some of the world's largest international institutes, in an effort to develop leading-edge processes, including next-generation patterning technologies. In the United States, we are participating in a consortium specializing in nanotechnology and are conducting joint research on newgeneration Al chips, neuromorphic devices modeled after human neural circuits, and three-dimensional stacking technology, which is attracting attention as a new integration technology.

Promotion of Digital Transformation (DX)

Prioritizing DX as an important means for continuing to provide new value to customers, we are promoting it company-wide. Tangible results are definitely showing up in research and development, including the realization of remote support using AR technology. We are also advancing initiatives targeted at providing new value to customers, such as the search for new materials and achievement of process optimization at overwhelming speeds by utilizing materials informatics.

In 2020, we opened TEL Digital Design Square, a DX-focused site, in Sapporo, Japan. We are establishing an environment in which data scientists can thrive, and are also providing education and training on DX knowledge and methods to support engineers in the individual divisions in creating innovation in their work.

We plan to continue promoting DX and the utilization of things such as AI in solving a variety of issues and developing functions, and



peripheral areas, and also developing technologies and systems to be installed in products intended for use in manufacturing vastly evolved future-generation semiconductors and FPDs.

The Corporate Innovation Division works closely with the development divisions at individual sites to maintain consistency in each product area and focuses on further high-value addition by optimizing research and development while maintaining a bird's-eye view of the entire development structure. At the same time, the division is also engaged in a search for potential growth areas, as well as in research and development of fundamental technologies toward creating new value in the future.

We are actively deploying the leading-edge technologies established through these activities to our company's R&D, helping our customers bring to fruition the cutting-edge devices they are working on.



to advance the development and provision of products, such as production equipment that analyzes its own operating conditions and makes functional enhancements and operating efficiency improvements, that are equipped with innovative functions.

Development Activities



Value Chain Initiatives Procurement and Manufacturing

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

We are aiming for constant innovation in production based on the themes of safety, high quality and high reliability, and are putting together manufacturing operations that are ecofriendly. Besides working toward a vertical transfer from product development to mass production via further improvements to efficiency, we are also promoting the creation of production systems that can respond swiftly to market fluctuations, as well as strengthening and leveling of production capacity. To ensure stable and sustainable procurement, we carry out CSR and BCP assessments throughout the supply chain based on industry codes of conduct, as well as share knowledge[®] with our suppliers regarding safety, quality, the environment and compliance. We value fair and transparent relationships with our suppliers and aim to grow alongside them and contribute to society on a global level through firm relationships based on trust.

[®] Knowledge: Value-added information such as experience and know-how that is beneficial to a company

Key Themes for Medium- to Long-term Value Creation

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

Management Resources to Be Invested



Sustainability Initiatives

- **Quality control in manufacturing P.41** Quality
- Promoting sound supply chain management based on industry codes of conduct P. 39 Supply Chain Management
- Initiatives for reducing CO₂ emissions and using renewable energy at plants and offices
- P.35 Medium- and Long-term Environmental Goals
- Shortening of production lead times and leveling P.42 Continuous Improvement of Business Operations

Risk Management Initiatives

	Main Risks	Initiatives
Procurement, Production and Supply	Delays in the supply of products	 Formulate BCPs, establish alternate production capabilities, develop multiple sources of important parts, seismically reinforce plants, etc. Build a system for the stable supply of products by sharing forecasts based on demand projections with suppliers to ensure the early procurement of parts and production leveling
Safety	Occurrence of safety-related problems and liability for damages, and a decline in credibility	 Based on the "Safety First" approach, thoroughly implement safety design at the product development stage, promote safety training and establish a reporting system in the event of an accident
Quality Occurrence of costs for countermeasures of a product defect and a decline in credibility Establish a quality as: Investigate the cause from occurring Investigate the cause from occurring		 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
Environmental Issues	Costs such as for developing new products or changing specifications, and declining product competitiveness and diminished public confidence in the Company	 Set industry-leading medium- to long-term environmental goals Reduce greenhouse gas emissions from product use. Reduce overall energy consumption and increase the ratio of renewable energy used at plants and offices Provide technologies that help reduce the power consumption of semiconductors

Main Procurement and Manufacturing Initiatives

Initiatives with Suppliers

In addition to conducting STQA[®] when beginning transactions with new suppliers, we conduct annual surveys with regard to CSR, BCP, conflict minerals and environmental laws and regulations, and we work with our suppliers to promote improvement activities based on the survey results. We also hold production update briefings and TEL Partners Day on a regular basis to create opportunities to share market trends, our management policy and business policies, and CSR initiatives with our suppliers.

Procurement policies based on each country's laws and regulations, social norms and industry codes of conduct are disseminated internally and externally to relevant parties, and compliance is encouraged. In addition, as a BCP measure, we have created a database of manufacturing sites for procured items and have established a system that enables us to quickly confirm the damage sustained in the event of a disaster and promptly begin restoration activities. We are also striving to improve the quality of procured items by clarifying the required specifications for

Manufacturing Operations

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

In assembly, adjustment, inspections and other processes, we have implemented in-process quality control consisting of thorough screening, simulation verification and so on to prevent non-conforming products from making it through to subsequent processes. In the manufacturing process, which consists of a combination of procurement from suppliers and our own operations, we meticulously control the quality of procured products and are working to build a resilient supply chain that can

Aiming for Productivity and Efficiency

We are creating a production system that centralizes all production-related information and can respond swiftly to market fluctuations. In addition, we have implemented a core system and a manufacturing execution system (MES¹) that utilize the latest digital technology to strengthen our IT infrastructure and computerize field data. By utilizing the aggregated data in each business operation, we can quickly collect data needed for business decisions, make production schedules more reasonable and more efficient, visualize delivery dates for parts and achieve stronger coordination between sales planning and production/procurement/inventory planning.

In addition, based on BOM² information, we have established production capabilities (flow lines) for performing work in an accurate and efficient manner according to the schedule expected by the customer, all while ensuring appropriate availability of materials and staff. Also, given the nature of our



essential parts and units, identifying and improving parts with high non-conformance rates and auditing suppliers' quality systems.



* STQA: Supplier Total Quality Assessment. An assessment that focuses on industry codes of conduct, cost reduction/higher productivity and quality.

guarantee stable procurement. Moreover, each manufacturing site is working to shorten the transition period from product development to mass production and improve product quality by strengthening production capacities, optimizing inventory and reducing management resources involved in mass production and reallocating them to product development.





Tokyo Electron Technology Solutions New Production Buildings (Left: Tohoku Plant Right: Fujii Plant)

business, which involves a wide range of parts, we have introduced automated warehouses and a warehousing and shipping navigation system, as well as automated inspections to save on human labor and increase efficiency.

- MES: Manufacturing Execution System. A system that monitors and controls the work of factory machines and workers by linking them to the parts of the factory production line.
- 2 BOM: Bill Of Materials. A list of the parts that control a product, showing the hierarchical structure as well as including basic information on each part, such as from which parts the product is assembled.



Tokyo Electron Miyagi JIT Supply Center (Automated Warehouse)



Value Chain Initiatives

Sales

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

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

We help customers manufacture leading-edge devices by grasping the latest technological trends and customer needs in an accurate and timely manner, as well as developing innovative technologies for future generations.

In addition, by leveraging our strengths as a device manufacturer with a diverse product lineup and the experience and high level of quality we have cultivated over many years, we propose optimal solutions that contribute to the creation of value for our customers. Moreover, by focusing on sales of used equipment and re-engineered equipment, we can meet a wider range of customer needs and help maximize their return on investment.



Ongoing efforts to ensure customer safety P.37 Safety

- Reducing CO₂ emissions from product usage by addressing Medium-term Environmental Goals
 P.35 Medium- and Long-term Environmental Goals
- **Improvement of operational efficiency in sales activities P.42** Continuous Improvement of Business Operations

Risk Management Initiatives

	Main Risks	Initiatives
Market FluctuationsOpportunity losses due to inability to supply customers with products in a timely mannerPeriodically review market condition and appropriately adjust capital inve and appropriately adjust capital inve sgrasping investment trends of customers		 Periodically review market conditions and orders received at Board of Directors and other important meetings, and appropriately adjust capital investments, personnel/inventory planning and other aspects of business Account Sales Division and Global Sales Division to strengthen the sales framework and customer base by grasping investment trends of customers and responding to a wide range of customer needs
Geopolitics	Restrictions on business activities	 Carefully watch policy and diplomatic trends to understand moves to introduce regulations Communicate opinions to policy-making authorities such as through public comment, and anticipate the impact of different countries introducing polices and regulations, and consider countermeasures
Information Security	Diminished public confidence in the Company or liability for damages	 Establish an information security system that conforms to global standards by launching a dedicated security organization and having security assessments conducted by external experts Establish globally standardized rules and regulations for information management

Main Sales Initiatives

Product Feedback that Reflects Accurate Understanding of Customer Needs

By collaborating with customers to create technology roadmaps spanning multiple generations, we can identify customer needs early on and reflect them in R&D for the next generation and beyond. This allows us to offer highly competitive products that help improve the yield rate of devices and maximize equipment utilization rate. We are also strongly promoting on-site collaboration to deliver value-added machines to customers' fabs and laboratories at an early stage, and are working to

Proposing Customer Solutions Leveraging a Wide Range of Product Lineup

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

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

Improvement of Customer Satisfaction

We are working to build a solid relationship of mutual trust with customers by further enhancing customer satisfaction, which we have valued highly since our founding. As an indicator for this effort, for many years we have been conducting a unique company-wide customer satisfaction survey (TEL CS Survey) at the same time every year to promote ongoing improvements to our business practices.

In the customer satisfaction survey for fiscal 2021, responses were received from approximately 1,400 individual customers (70.2% of all customers), and 96.7% of all survey items received a score of three points or higher (Very Satisfied or Satisfied)*. This marked an improvement of 3.4 percentage points from fiscal 2020. Information obtained from the survey is analyzed by business unit (product), account (customer) and function (software, development, etc.), and the results of this are shared with relevant divisions, such as sales, plants, service and overseas subsidiaries to implement actions for improvement.

* On a four-point scale, three points or higher represents "Very Satisfied" or "Satisfied".



optimize products and shorten the time from technology development to mass production.

To carry out these activities efficiently, global operations (=One-TEL) are being rolled out by an organic organization consisting of business units, the Account Sales Division, the Global Sales Division, development and manufacturing divisions, service divisions, overseas subsidiaries and other entities.



Value Chain Initiatives Installation and Maintenance Services

We have established a global support system to provide the Best Technical Service with high added value in a prompt and appropriate manner.

For installation and equipment maintenance, we take advantage of a cumulative number of equipment installations of approximately 76,000 units to offer the Best Technical Service with high added value.

We make full use of leading-edge AI, digital technology and knowledge management* tools, and promote enhanced efficiency for our services to support the stable operation of various generations of equipment for a wide variety of applications.

By refining the skills of the front-line engineers who interact with customers, we work hard to accurately identify customer needs and

provide timely feedback to our development and manufacturing operations. In addition, we are making efforts to further improve the quality of our services through the provision of advanced field solutions, such as by constructing a global support system via our Total Support Center (TSC) and enhancing remote support through our remote maintenance service.

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

Key Themes for Medium- to Long-term Value Creation

- Improvement of customer satisfaction through the provision of high-value-added services
- Maximizing service revenues through expanded sales of comprehensive contract-based services
- Addressing new customer needs with equipment for power devices, re-engineered equipment and other measures
- * Comprehensive services primarily for post-warranty maintenance (maintenance work, performance maintenance, provision of spare parts etc.)

Management Resources to Be Invested Service support infrastructure at Service database and Approximately remote support system 4,000 field engineers 76 sites in that utilizes AI. knowledge management etc. with highly specialized 18 countries and regions and broad knowledge **Primary Management Indicators** Man-hours for Net sales for field **Profitability of field** installation and . II maintenance services solutions business solutions business at overseas subsidiaries

Sustainability Initiatives

- Improving the efficiency of start-up operations and maintenance services P.42 Continuous Improvement of Business Operations
- Safety initiatives for installation and maintenance services P.37 Safety
- Provision of high-quality services P.41 Quality
- Effective utilization of diverse talent P.40 Diversity and Inclusion

Risk Management Initiatives

	Main Risks	Initiatives
Quality Occurrence of costs for countermeasures for a product defect and a decline in credibility Establish a quality assurance system and a world-clas Note: The system and a contract of the contract of the system and contract of the system a		 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
Human Resources	Diminished product development capability or customer support quality	Make ongoing improvements to work environments and promote health and productivity management, including having top management share direction through regular employee meetings, establishing training plans for the next generation of human resources, visualizing career paths for employees and offering attractive remuneration and benefits
The Novel Coronavirus (COVID-19)	Slows the Company's business activities or the deterioration of global economic conditions	 Established 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

Main Installation and Maintenance Service Initiatives

Enhancing Front-line Engineers

We believe it is essential to accurately ascertain valuable information, including customer needs and equipment operation status, in markets where we deliver equipment, as well as to provide timely feedback with regard to related operations to assist in equipment development and improvements to functionality.

To efficiently conduct these activities, we are working to improve the skills of each and every engineer involved in on-site equipment installation and maintenance. We also strive to promote seamless communication between our development and manufacturing departments and both the engineers at our overseas subsidiaries and our own engineers assigned overseas who serve as our on-site contacts with customers.

Moreover, we are making efforts to establish a management system for operations in each country and region so that we can respond in a flexible and rapid manner to changes in the business environment and promote efficient operations.

Promotion of High-value-added Services

We have built a global support system, establishing Total Support Centers (TSCs) in Japan, the United States, China and Europe. At each TSC, dedicated representatives maintain and utilize a database of information about customers' equipment and examples of similar incidents. Further, through our TELeMetrics™ remote maintenance service, TSCs use their knowledge and tools to propose solutions to the various issues customers face.

And to expand remote support for field engineers, we are engaged in developing a remote support system that can share video and audio from customers' fabs in real time, as well as further enhance the confidentiality of information. Through such efforts, we are promoting remote support that helps to ensure stable equipment operation. Starting in fiscal 2021, we will add unique functions such as information protection, restricted video transmission, and call translation to our existing smart glasses* system to make remote support more convenient and further improve support quality.

Improving Service Productivity

To further improve service productivity, we are implementing initiatives in conjunction with Group-wide business innovation projects. To promote knowledge management, we are deploying Service CRM* on a global scale to centrally manage customers' equipment records (support/trouble history) as a database, as well as to ascertain each field engineer's actual work status through work orders.





Promoting these initiatives in smooth collaboration with field engineers and manufacturing sites allows us to provide highvalue-added services.

* Smart glasses: Glasses-style wearable devices that can display images and digital information



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

* Service CRM: Service Customer Relationship Management

Sustainability Initiatives in the Value Chain

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

Environment

Environmental Management

Environmental issues such as climate change are growing ever more crucial. To promote activities in the medium to long term that meet the environmental/social/governance needs of its customers and other stakeholders, the Manufacturing Company Presidents' Council, which includes the corporate director in charge of environment, health and safety (EHS), monitors and supervises progress related to environmental issues. A headquarters has been established, headed by the corporate director in charge of EHS, and promotes environmental activities across the entire Group. The Environment Council, made up of members appointed by the executives of the Group companies, sets targets related to environmental issues, monitors progress and also works to achieve its goals. Furthermore, to continuously promote our environmental activities, we have operated an environmental management system based on ISO 14001 since fiscal 1998, primarily at our manufacturing subsidiaries. The progress of our activities and legal compliance status are checked through internal audits and third-party audits. Any issues identified through these activities are reviewed by the Environment Council, reported to the Manufacturing Company Presidents' Council and used for promoting environmental activities across the entire Group. Under such an environment management system, fiscal 2021 was again free from environmental incidents, accidents, violations and associated legal proceedings.

Medium- and Long-term Environmental Goals

In order to further strengthen our initiatives toward the environment in our products, plants and offices, the contents of the medium-term environmental goals for fiscal 2031 were revised in December 2020. In the goals for products, the reference year for per-wafer CO₂ emissions was changed from fiscal 2014 to fiscal 2019. In addition, in the goals for plants and offices, the total CO₂ emissions reduction goal was changed from 20% reduction to 70% reduction, while reaching a rate of 100% renewable energy usage. At present, we are working on new initiatives toward achieving these revised goals. Specifically, we are planning to introduce renewable energy at our plants and offices in Japan, the United States and China starting from fiscal 2022. This will bring our use of renewable energy company-wide to over 50%, while dropping our CO₂ emissions by 40%. In terms of products, we are moving ahead with understanding the amount of CO₂ emissions during use of standard equipment and creating a roadmap. We are rolling out activities toward achieving our goals based on this.

We have set the following as a long-term goal to achieve by 2050: "As a leading company in environmental management, we strive to contribute to the development of a dream-inspiring society by proactively promoting the reduction of environmental burden of both our products, plants and offices, and at the same time, providing evolutionary manufacturing technologies that effectively reduce the power consumption of electronic products". We are working on initiatives for this at a company-wide level.

CO₂ Emissions across the Value Chain

Our Scope 3 CO_2 emissions account for approximately 97% of total emissions, and approximately 88% (5,668 kilotons) of that comes from the use of products, so we believe that product development with low CO_2 emissions during operation is critical.



Scope 1: Direct greenhouse gas (GHG) emissions from use of fuel and gas we owned or controlled

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

Scope 3: Emissions from corporate value chains (excluding scope 1 and 2 emissions), such as product transportation, employee business travel and major outsourced production processes

Scope 3 is divided into 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

E-COMPASS

We established E-COMPASS (Environmental Co-Creation by Material, Process and Subcomponent Solutions) as a new supply chain sustainability initiative. E-COMPASS aims to align our products and the entire operations more closely with our environmental mandates, strengthen our ties with business

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

We are pursuing ongoing disclosures and initiatives based on the TCFD framework and relating to risks and opportunities that climate change presents to our business.

Status of Initiatives Related to Recommendations of the TCFD • Governance

Each of our corporate directors for EHS and CSR is working under the supervision of the CEO to monitor progress of goals related to our response to climate change. With the establishment of the EHS Promotion Department and CSR Operations Department at headquarters, these activities are being driven by the entire Group. At the Environmental Council, comprised of members appointed by executives of the Group companies, companywide goals are set, progress is monitored and the achievement of these goals is promoted.

Strategy

Utilizing the framework of the TCFD recommendations, we identified the risks and opportunities of climate change that will impact business over the medium to long term. We have evaluated the quantitative impact on business from some of those risks and opportunities, and we aim to continue quantifying others going forward as we investigate relevant measures.

Risk Management

Through the Manufacturing Company Presidents' Council, we approve company-wide risk management initiatives, from short term to long term, that related divisions and councils recommend, and then apply those initiatives to the facilities and

Examples of Climate Change (Risks and Opportunities) Impacting Business over the Medium to Long term

Scenario	Туре	
2°C Temperature Increase	Transition risks	 Increased energy costs in line with taxes on of renewable energy remain at fiscal 2021 le by 1.1 billion yen/year by fiscal 2026 (assum (14,000 yen per ton CO2) Decreased net sales if we are unable to mee Reduced reputation among investors, NGO environmental issues is delayed
4°C Temperature Increase	Physical risks	 Impacts on us, our suppliers and customers disruptions, operation stoppages, production
Common Opportunities	 Accelerated efforts to create new value, incland equipment and technologies that contrest of Gaining superiority and business opportuni the market Higher productivity by streamlining operat Securing a competitive advantage by building working to adopt renewable energy 	



partners, solidify our industry leadership, and pave the way for a sustainable future. We will utilize every management resource at our disposal to drive the major trends of digitalization and greening of society and actively endeavor to preserve the global environment throughout the supply chain.

divisions of the Group companies.

For Scope 1 and 2 CO₂ emissions, we are adopting renewable energy from a global perspective, including the implementation of measures at our key manufacturing sites in Japan with high emissions.

For Scope 3 emissions, we recognize the importance of providing products that generate fewer CO₂ emissions because about 88% 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 in anticipation of natural disasters caused by abnormal weather and other factors, and take measures with our suppliers to ensure that business operations can be maintained.

Metrics and Targets

To further reinforce our initiatives toward improving environmental performance of products and conserving the environment at our plants and offices, we revised our mediumterm environmental goals in December 2020⁼. While supporting the advancement of information and communications technology through the provision of our semiconductor and FPD production equipment, we are also committed to achieving new environmental goals in keeping with our Corporate Philosophy: "We strive to contribute to the development of a dreaminspiring society through our leading-edge technologies and reliable service and support."

* Refer to Medium- and Long-term Environmental Goals on p. 35

Details

n fuel and energy. Assuming our greenhouse gas (GHG) emissions and use levels, if a carbon tax were applied, we estimate our costs would increase ning a tax of 6,000 yen per ton CO₂) and 2.6 billion yen/year by fiscal 2041

eet customers' requirements and demands for environmental initiatives Os and local communities if a response to climate change and other

rs from abnormal weather (net sales decrease as a result of supply chain cion/shipping delays and other factors)

cluding innovation toward development of low-GHG products and services, tribute toward the manufacture of low-power consumption devices nities through proactive initiatives for climate change and adding value to

tions and reducing related environmental impacts ding resilience (responsiveness to climate change) into global operations, ırgy, and improving corporate value through these initiatives

Safety

Approach to Safety

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

Safe Design of Equipment

Taking the entire product life cycle into consideration, we carry out product risk assessments as early as possible in the development phase. Based on the assessment results, we implement safe equipment design¹ to reduce the risks posed to humans. We also examine and ensure compliance with increasingly strict laws and regulations around the globe, and have a system in place for all safety regulations of the regions where our equipment is delivered. Equipment we ship is checked to ensure that it complies with international safety standards such as SEMI S2² and CE marking³ as well as the safety laws and regulations of each country and region.

- 1 Safe equipment design: A design concept that eliminates the cause of the machine's harm to humans through the safety design of the machine
- 2 SEMI S2: This is a set of environmental, health and safety guidelines for semiconductor production equipment. It is used mainly by the leading manufacturers of semiconductor equipment in the United States and Europe, not only for semiconductors but also as safe procurement guidelines for electric and electronic device manufacturing equipment around the world.
- 3 CE marking: When exporting into the European Union, CE marking defines rules for displaying a CE mark as proof that the equipment is safe and complies with EU-defined rules (directives)

Handling of Accidents

We analyze the causes of all accidents and implement corrective measures. We strive to prevent accident recurrence by not only identifying the main cause, but also carrying out multi-faceted cause analysis, targeting the operator who was involved, the facility, the environment, the involved coworkers and the management aspect, and sharing the results with all Group companies.

Safety Education

We are implementing two education programs globally for the establishment of safe work environments. The first is a program on basic safety targeting all employees and the second is a program on advanced safety targeting employees working on manufacturing lines and cleanrooms. To eliminate incidents, we also provide online training and risk assessment training for employees in Japan and overseas. Also, to expand the concept of safe equipment design to our 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. Finally, we also promote our initiatives to prevent accidents, such as 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 Company's target of 0.5, with 0.27 in fiscal 2021.



Human Rights

Approach to Human Rights

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

Human Rights Initiatives

In fiscal 2018, we formulated our Human Rights Policy¹, summarizing our approach to human rights. We have specified the human rights we believe 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 Conduct²

1 Human Rights Policy: www.tel.com/csr/employee/diversity/

2 RBA Code of Conduct: A global initiative with a focus on the electronics industry, the Responsible Business Alliance (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.

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 to make it available to everyone inside and outside the Company, and also implement online human rights training targeting all of our executives and employees. In fiscal 2021, as in the previous fiscal year, we conducted human rights due diligence, as well as risk surveys, and identified and assessed impacts. As part of the surveys, we



human rights • Human Rights Policy publication Awareness and implementation Education

in business and supply chains CSR assessment Human rights risk assessment • Human rights impact assessment

We recognize the importance of having highly effective grievance mechanisms related to human rights and are working to establish and operate those mechanisms. In fiscal 2021, we further strengthened our internal and external reporting systems in Japan and overseas for employees and suppliers. By continuing



suppliers showed that 35% of those with 500 or more employees had potential/actual risks. Among these risks, the major risks are health and safety issues related to human rights, followed by labor issues. Based on these results, we continued to request those suppliers to comply with domestic laws and regulations and social norms related to



utilized a self-assessment questionnaire (SAQ) for internal use, based on the RBA Code of Conduct, and also reviewed the results of a CSR assessment³ for suppliers of materials, staffing and logistics to assess the current situation throughout the value chain. We are using the results of these surveys to consider corrective actions and reduce human rights risks.

3 Refer to Supply Chain Management on p. 39



to conduct human rights due diligence 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.

manage working hours and also taking steps to improve

operational efficiency further.

Supply Chain Management

Principles and System of Supply Chain Management

The building and maintenance of a supply chain, which responds flexibly to the demands and risks of a diverse society and contributes to the creation of new value, is crucial for the enhancement of our medium- and long-term corporate value. To make our entire supply chain sound and sustainable, we have formulated a procurement policy based on the laws, regulations and social norms of each country, as well as the RBA Code of Conduct, and are promoting activities based on this policy by disseminating it throughout the Company and our suppliers. We also promote improvement activities from various perspectives while valuing continuous 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.

We 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. Under the leadership of the Representative Director, President & CEO, issues identified during various activities are shared with relevant divisions for consideration and action on specific improvements.

Initiatives in the Supply Chain

CSR Operations

To keep track of our suppliers' engagement in CSR activities, we have conducted a CSR assessment in the areas such as labor, health and safety, the environment and ethics since fiscal 2014. We analyze the results of the assessments, provide feedback and work together with our suppliers to remediate any issues. In fiscal 2019, we completely revised the content of the survey based on audit standards stipulated by the RBA, and have since conducted surveys on materials¹, staffing² and logistics³ suppliers.

In fiscal 2021, with the help and understanding of our suppliers, steps were taken to repay workers with respect to cases of an employment-related expense burden for forced labor and bonded labor, which had been identified in the previous fiscal year and which have been given particular emphasis in the RBA Code of Conduct. In addition, with respect to cases of false reporting, changes were made in business processes and audits were introduced.

Regarding the human rights issue of "freely chosen employment", we have expressly stipulated our zero tolerance policy for forced labor and bonded labor, and by communicating this to our major suppliers, we are promoting initiatives to ensure that all people in our supply chain can work of their own free will.

Material suppliers: Surveys have been conducted since fiscal 2014 for suppliers accounting for more than 80% of our procurement spend.

2 Staffing suppliers: Surveys have been conducted since fiscal 2019 on 100% of employment agencies and contracting companies (internal contractors).

3 Logistics suppliers: Surveys have been conducted since fiscal 2019 on 100% of customs-related operators.

Responsible Procurement of Minerals (Conflict Minerals)

We regard taking action against conflict minerals (3TG⁴) obtained through illegal exploitation, including sources with human rights violations or poor working conditions, as an important part of 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. We conduct surveys on conflict materials using the CMRT^S and referring to the OECD⁶ Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

4 3TG: Tantalum, tin, tungsten and gold

5 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.

6 OECD: Organisation for Economic Co-operation and Development

Procurement BCP

As part of our business continuity plans (BCPs), we collaborate with suppliers for 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. In addition, we conduct BCP assessments on our suppliers, analyze their responses and provide them with feedback to promote further improvement.



Human Resources

Employees Both Create and Fulfill Company Values

A total of 14,479 employees are working at the 76 Tokyo Electron sites located in 18 countries and regions of the world, and we believe that each of them maintaining a high level of engagement and demonstrating their full potential will lead directly to our company's growth. 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 every year 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

Corporate Education System (TEL UNIVERSITY)



* OJT: On the Job Training

Diversity and Inclusion

At Tokyo Electron, diversity and inclusion are management pillars that lead to the continuous generation of innovation and increased corporate value. We are actively pursuing them with the strong commitment of our management.

 In terms of succession planning, we conduct a diversityconscious talent pipeline (plan for developing human resources) and strive to increase the ratio of women in management positions

 Taking into consideration that many of our employees are engineers, we actively invest in the use of recruiters and branding to hire women at a level that is equal to or greater than the ratio of women in each region (or the ratio of women majoring in science and engineering in the case of engineers)

Supply Chain CSR Process



practice by our employees all over the world.

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 stand shoulder to shoulder with each employee, supporting their self-growth and fruitful career development throughout their working life, and create a foundation that enables the organization and individuals to trust each other and grow. We are focusing on employee growth that leads to corporate growth through the following four initiatives: Provision of Personalized Learning Opportunities, Support for Career Development, Leader Programs, and Provision of Global Learning Opportunities.

Leaders	Mid-level Employees	Junior Employees/ New Employees
oductory programs (new g		
OJT® programs (new gradı	ates, mid-career recruits)	
ms	Mid-level employee programs	Junior employee programs
ulsory web-based training		
Business skills		
obal communication		
mployee life support		1
ograms (seminars, workst	nops)	'

Although the areas of emphasis for diversity and inclusion vary by country, we have taken on gender and nationality as major themes and put the following goals and initiatives in place based on the characteristics of 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 talks on diversity and inclusion from internal and external experts and leaders, generate 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

Employee Engagement

Improving employee engagement is essential to maximize corporate performance and achieve sustainable growth. Recognizing that employees both create and fulfill company values for us, we have been regularly conducting engagement surveys since fiscal 2016 to assess the current state of employee engagement and identify issues. Based on the results of the surveys, our management takes the lead in making improvements to foster a better workplace environment and culture. These initiatives resulted in an increase in the employee engagement score of 12 points from fiscal 2016 to fiscal 2021 and a turnover rate of 2.5%

We plan to continue these initiatives since we believe that improving employee engagement leads to providing increased value to our stakeholders.



Quality

Initiatives for Quality Improvement

In order to help each of our employees correctly understand and implement quality assurance activities, we realize the importance of correctly defining the ideal form of quality assurance (goals), along with creating an environment and culture for widely disseminating it. From the ideal form, we established "Our Approach to Quality" and "Quality Policy" and communicate the importance of quality to our employees at various opportunities to increase their quality awareness. To carry out correct quality assurance activities, it is important to establish clear rules for what has to be done and correctly implement those rules. To ensure that our employees are always aware of their roles and purposes and correctly perform their work, we are striving to make the rules comprehensive, reassess and deploy our quality education from time to time and visualize appropriate quality information. Based on these foundations, we help our employees mutually enhance awareness about quality in a variety of situations so that their efforts lead to the improvement and growth of our business processes, enabling us to provide product quality and services that surpass customer expectations.

Approach to Quality

We have defined our approach to quality as follows:

"The Tokyo Electron Group seeks to provide the highestquality products and services. This pursuit of quality begins at development and continues through all manufacturing, installation, maintenance, sales and support processes. Our

employees must work to deliver quality products, quality services and innovative solutions that enable customer success".

Quality Policy

1. Quality Focus

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

2. Quality Design and Assurance

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

3. Quality and Trust

When a quality-related problem occurs, working as a team to perform thorough root cause analyses and resolve problems as quickly as possible.

4. Continual Improvement

Ensuring customer satisfaction and trust by establishing quality goals and performance indicators and by implementing continual improvement using the PDCA cycle.

5. Stakeholder Communication

Listening to stakeholder expectations, providing timely product quality information and making adjustments as needed

We strive to implement own-process assurance systems by carrying out strict risk management and development/design inspections beginning at the development stage, and also by ensuring verification of customers' operations using simulations. We have also built an important component traceability system as part of our effort to strengthen our information environment. By making it possible to use the One Platform¹ to view such information as past problems and adjustment values used during manufacturing and assembly, as well as important component inspection information from suppliers, we have successfully strengthened our risk management (FMEA²) to prevent various types of non-conformance.

We believe that thorough implementation of these ownprocess assurance systems and prevention makes it possible for employees to focus on high-value-added business operations and promote initiatives that lead to Shift Left (front-loading). We will continue to strive to provide high-quality and high-valueadded products and services to our customers.

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

2 FMEA: Failure mode and effects analysis. Method to identify, prevent and mitigate risks in advance

Continuous Improvement of Business Operations

We are currently introducing a new enterprise system (ERP*) to improve productivity and quality further. The new ERPs, being integrated across operational and national boundaries, are aimed at creating the following five benefits: (1) compliance with the new revenue recognition standards in Japan; (2) business and management decision making with quick response to change; (3) large improvements in business operation efficiency; (4) utilization of globally integrated information with an eye toward overall digital transformation; and (5) realization of ultimate work style reform. Beginning with business operational improvement, we are contributing to the resolution of issues from COVID-19 with global progress in the expansion of telecommuting, the shift to online approval operations, and overall digitalization.





Shift Left (Front-loading) Initiatives



In fiscal 2021, we made progress in communication and consensus-building that included our headquarters, manufacturing sites in Japan, and overseas subsidiaries, as well as partner companies, to form a globally unified team toward business innovation. In May 2021, the new ERPs began operation, primarily at our headquarters. While making the most of the knowledge gained from this process and the results, we plan to realize a true globally integrated system, with project members and all our employees working as one.

^{*} ERP: Enterprise resource planning. A system that integrates the core business operations of an enterprise, such as accounting, personnel, production, logistics and sales, for better efficiency and centralized information.

Corporate Governance

Corporate Governance Framework

With over 80% of our sales coming from overseas, we regard building governance structure as essential in order to achieve success in global competition and sustainable growth. To that end, we have built a framework to maximize use of worldwide resources, and have worked to incorporate a wide range of opinions to strengthen our management foundation and technology base, establishing a governance structure capable of ensuring that we attain global-level earnings power. We have also established the Corporate Governance Guidelines^{*} which outline this governance structure.

We use 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 executive management's execution, and support appropriate risk-taking by them, we have established systems that facilitate growthoriented governance directed at sustainable growth, 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.

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





Composition and Results of the Board of Directors, Nomination and Compensation Committees (In fiscal 2021)

	Corporate Directors Directors Directors Directors		Speaker/Chairperson	Number of Times Held	
Board of Directors	8	3	Corporate Director (Non-Executive Director)	12	
Nomination Committee	3	1	Corporate Director	10	
Compensation Committee	2	2	Independent Outside Director	7	

Policies for Allocation of Earnings

Our basic stance is for the appropriate allocation of company earnings to all stakeholders.

Our dividend policy 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, we also set the minimum annual dividend at 150 yen per share in light of the stable distribution of dividends.

We effectively use 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. Furthermore, we flexibly consider implementing repurchases of treasury stocks as part of returning earnings to shareholders.

Establishment of the Director Compensation System

As our basic policies on executive compensation, we emphasize (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 inside directors consists of fixed basic compensation, annual performance-linked compensation and medium-term performance-linked compensation. Compensation for outside directors consists of fixed basic compensation and non-performance-linked (stock-based) 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 an independent outside director chairs, utilizes advice from an external expert, compares compensation levels with those of industry peers 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 policy for corporate directors, a compensation system that is globally competitive and the most appropriate for us, and individual compensation amounts for the representative directors.

	Fixed Basic	Annual Performance-	linked Compensation	Medium-term Performance-linked Compensation	Non-performance- linked Compensation
	Compensation	Cash Bonuses	Stock Compensation- based Stock Options	Performance Share (Stock-based)	Restricted Stock Units (Stock-based)
Corporate Directors	•	•	•	•	_
Outside Directors	•	_	_	_	•
Audit & Supervisory Board Members	•	_	_	_	_



Fixed Basic Compensation

Fixed basic compensation is determined in reference to the compensation standards of industry peers in Japan and overseas. For inside directors, it also depends on the scale of their 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 at a ratio of approximately 1:1. The specific amounts paid and the numbers of stock options granted are determined based on the results of corporate business performance and individual performance evaluations for the relevant fiscal year. Net income attributable to owners of parent and consolidated ROE are adopted as evaluation indicators for corporate business performance. Evaluation items for individual performance include the degree of contribution to short-term and medium-term management strategy targets (including ESG).

Medium-term Performance-linked Compensation

Medium-term performance-linked compensation is a performance share (stock-based) compensation to motivate recipients to contribute to improving medium-term business performance and raise awareness for enhancing corporate value by sharing the perspective of shareholders through the holding of shares. The number of shares issued to each corporate director varies according to the payout rate based on their respective responsibilities and level of performance goal achievement over the relevant three-year period. Consolidated operating margin and consolidated ROE have been adopted as the indicators for measuring the levels of performance goal achievement which are linked to the Medium-term Management Plan.

Non-performance-linked (Stock-based) Compensation

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

Process for Evaluating the Effectiveness of the Board of Directors and Management Issues

To evaluate the effectiveness of the Board of Directors, including the Nomination Committee and Compensation Committee, we conduct questionnaire surveys of all corporate directors and Audit & Supervisory Board members, as well as individual interviews with some corporate directors and Audit & Supervisory Board members. We also conduct opinion exchanges and deliberations with a group comprised mostly of outside directors and Audit & Supervisory Board members. The results of this questionnaire, summaries of interviews and the content of deliberations are then shared with the entire Board of Directors before deliberating and comprehensively evaluating the effectiveness of the Board of Directors. We appoint a third party to provide advice on setting assessment items and to

Skills Matrix

In view of our Corporate Philosophy that "We strive to contribute to the development of a dream-inspiring society through our leading-edge technologies and reliable service and support", we are engaged in enhancing our governance structure and in sustainability-focused management in order to respond to changes in the global environment, achieve success in global competition, and realize sustainable growth and increased corporate value over the medium to long term to respond to the

conduct, aggregate and analyze the interviews in an effort to increase objectivity.

In terms of the evaluation results in fiscal 2021, open and dynamic discussions were held at Board of Directors meetings and off-site meetings. We recognize that the Board of Directors, including the Nomination Committee and Compensation Committee, is functioning in an effective manner.

In light of the results of this evaluation, we will continue our efforts to have fuller discussions regarding medium- to longterm management strategies, promote diversity, strengthen group governance at a global level and share appropriate information with the Nomination Committee, Compensation Committee and Board of Directors.

mandate from our stakeholders. We believe that our corporate directors and Audit & Supervisory Board members have the necessary qualifications to realize these initiatives.

Described in detail below, all of them have knowledge of global business, governance, sustainability and so on. In addition to this matrix of individual skills, we also disclose the overall diversity of our Board of Directors in an easy-tounderstand format.

			Expertise and Experience*						
	Name		Corporate Management	Semiconductor/ FPD	Manufacturing/ Development	Sales/ Marketing	Finance, Accounting/ Engagement with Capital Markets	Legal Affairs/ Risk Management	
	Tetsuo Tsuneishi		•	•		•	•		
	Toshiki Kawai		•	•	•	•			
	Sadao Sasaki		•	•	•	•			
	Yoshikazu Nunokawa			•	•	•	•		
	Tatsuya Nagakubo			•			•	•	
Corporate	Kiyoshi Sunohara				•	•			
Directors	Seisu Ikeda			•	•	•			
	Yoshinobu Mitano			•	•	•			
	Charles Ditmars Lake II	Outside	•	•			•	•	
	Michio Sasaki	Outside	•		•	٠			
	Makiko Eda	Outside	•	•		٠			
	Sachiko Ichikawa	Outside					•	•	
	Yoshiteru Harada			•			•	•	
Audit &	Kazushi Tahara		•	•	•	•			
Supervisory Board	Kyosuke Wagai	Outside					•	•	
Members	Masataka Hama	Outside	•				•		
	Ryota Miura	Outside						•	

* The six categories of "expertise and experience" are defined as follows:

Corporate management: Having experience in managing an enterprise (experience serving as a representative director or chairperson/president)

Semiconductor/FPD: Having knowledge of semiconductor/FPD-related industries

= Manufacturing/development: Having knowledge/experience in manufacturing and development at Tokyo Electron and other manufacturers

Sales/marketing: Having knowledge/experience in sales and marketing at Tokyo Electron and other manufacturers

Finance, accounting/engagement with capital markets: Having knowledge in financial accounting and M&A, or knowledge/experience in engagement with capital markets

= Legal affairs/risk management: Having knowledge in legal affairs, compliance and risk management

Diversity of Board Members

Expertise and experience of Corporate Directors and Audit & Supervisory Board Members



Directors and Audit & Supervisory Board Members (As of July 1, 2021)

Directors





Tetsuo Tsuneishi Corporate Director Chairman of the Board Corporate Director, Tokyo Electron Device Ltd.

Toshiki Kawai Representative Director President & CEO





Kiyoshi Sunohara Corporate Director





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

Sachiko Ichikawa Outside Director Partner, Tanabe & Partners Outside Corporate Auditor, Ryohin Keikaku Co., Ltd. Statutory Auditor, The Board Director Training Institute of Japan Outside Director, OLYMPUS CORPORATION

Audit & Supervisory Board Members





Audit & Supervisory Board Member

Kazushi Tahara Audit & Supervisory Board Member

Kyosuke Wagai Board Member Representative, Wagai CPA Office Outside Audit & Supervisory Board Member, Mochida Pharmaceutical Co., Ltd.



Sustainability Initiatives in the Value Chair

Independence and diversity of Corporate Directors





Representative Director President & Representativ Director, Tokyo Electron ology Solutions Ltd.



Yoshinobu Mitano Corporate Director



Yoshikazu Nunokawa Corporate Director

Charles Ditmars Lake II

Outside Director, Japan Post Holdings Co., Ltd.

Outside Director

Incorporated

Chairman and Representative Director, Aflac Life Insurance Japan Ltd. President, Aflac International



Michio Sasaki Outside Director Director and Vice President SHIFT Inc. Outside Director, ZUIKO CORPORATION

Tatsuya Nagakubo

Corporate Director



Outside Audit & Supervisory



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



Ryota Miura . Outside Audit & Supervisory Board Member

Partner, Miura & Partners Legal Profession Corporation Corporate Auditor, TECHMATRIX CORPORATION Outside Director, Eisai Co., Ltd.

Message from the Chairman of the Board

Further Pursuit of Board Effectiveness and Strengthening of Governance Structure Are the Foundation for Enhancement of Corporate Value

Tetsuo Tsuneishi Corporate Director Chairman of the Board

The most important duty of Tokyo Electron's Board of Directors is making decisions on important matters toward enhancing short-, medium- and long-term shareholder value. In fiscal 2021, we achieved the highest net sales and operating income in our corporate history. This was due in large part to the tremendous effort of our executive management and employees. At the same time, I also recognize that the Board of Directors maintained a high level of effectiveness and made decisions on important directions and strategies after wide-ranging discussions, all of which also contributed to our good performance.

Priority issues for further growth, medium- to long-term management strategies and initiatives regarding sustainability were also discussed and deliberated in depth. All corporate directors and Audit & Supervisory Board members engaged in discussions based on their diverse insights and experience with a global perspective and strong awareness of Tokyo Electron's corporate culture to arrive at our directions for growth and many important resolutions.

Through our discussions about short-, medium- and longterm value creation, we made the decision to issue the Integrated Report starting from this year in addition to our annual Sustainability Report to allow us to accurately communicate these initiatives to our stakeholders. Japan's Corporate Governance Code was revised in June 2021, and the Tokyo Stock Exchange will also be carrying out a transition to new market segments (Prime, Standard and Growth) in April 2022. To further improve the effectiveness of the Board of Directors, we are also working on initiatives for the new recommended items in the revised Corporate Governance Code. Together with the introduction of a skills matrix for corporate directors, we are also overseeing successor training plans as appropriate. In addition, we seek to strengthen diversity by positioning the development and appointment of global human resources and the promotion of gender diversity as key issues that must be addressed. As for the important matter of risk management, we will broadly identify risks on a company-wide basis, including overseas sites, and respond to them appropriately. At the same time, we will evolve and further strengthen our Group's governance.

To correctly grasp the trends of the rapidly growing global ICT industry, meet the expectations of the capital market, achieve sustainable growth and improve our medium- to long-term corporate value, our Board of Directors will undertake management with world-class effectiveness so as to always make the best decisions at the right time regarding important management issues.

. Jauroch

Corporate Director Chairman of the Board

Compliance

Approach to Compliance

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

Compliance System

In order to effectively promote a global compliance program, we have appointed a Chief Compliance Officer (CCO) and established a dedicated Compliance Department at our headquarters. Additionally, people responsible for compliance (Regional Compliance Controllers) have been appointed at key overseas sites, creating a system for direct reporting to the Chief Compliance Officer and Compliance Department.

Compliance Initiatives

Business Ethics

In addition to establishing the Code of Ethics as standards of conduct by which executives and employees should abide and distributing it in the form of booklets, we also strive for understanding and awareness by regularly obtaining confirmation of compliance from all executives and employees. In fiscal 2021, we made a full-fledged revision on the content to what is required as a global company and changed the booklet design to make it easier to understand.

Response to Internal Reports





Initiatives for Anti-Bribery and Corruption and for Competition Laws

We have established the "Global Anti-Bribery and Corruption Policy" as well as the "Gifts and Entertainment Guidelines", and the "Global Competition Law Policy" and the "Guidelines". In addition, we also regularly conduct training to promote understanding and awareness.

Internal Reporting System

Preventing problems from occurring and resolving them before they become significant 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. For this reason, 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.

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.

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 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, we carry out enterprise risk management¹ through a body established within the General Affairs Department at our headquarters. This body works with the respective departments responsible for each operation to identify a wide range of risks arising in business activities, such as compliance risk, human resource and labor risk, and business continuity risk. It then classifies risks with high impact and probability as our key risks.

The body also formulates and executes measures to minimize these key risks, monitors the effect of said measures, as well as works to understand the status of risk control, and implements the PDCA cycle for risk management.

In fiscal 2021 we introduced CSA² and started a risk management committee. We will continue these activities going forward. By continuing to strengthen and progress risk

management activities throughout our Group, we will implement risk management that is more effective than ever before.

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 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 2021 was also evaluated as effective by the independent auditors.

Risk Management Initiatives

We conduct Group-wide reviews to identify the current status of risk management as well as any potential and actual risks surrounding the Company in the future. Based on the results of the reviews, we have identified the following 13 risks as having potential to cause significant issues to our financial condition, operating results and cash flows, and are working to address them.

ltem	Main Potential Risks	Main Risk Management Initiatives	
1. Market Fluctuations	Rapid contraction of the semiconductor market could lead to overproduction or an increase in dead inventory. In addition, a rapid 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 Board of Directors and other important meetings, and appropriately adjust capital investments, personnel/ inventory planning and other aspects of business Account Sales Division and Global Sales Division to strengthen the sales framework and customer base by grasping investment trends of customers and responding to a wide range of customer needs 	
2. Geopolitics	Initiatives made by an individual country or region from such perspectives as industrial policy, national security or environmental policy in shifting to domestic production of semiconductor-related businesses, strengthening policies prioritizing domestically manufactured products or tightening of export controls and environmental laws and regulations could lead to restrictions on business activities	 Carefully watch policy and diplomatic trends to understand moves to introduce regulations Communicate opinions to policy-making authorities such as through public comment, and anticipate the impact of different countries introducing polices and regulations, and consider countermeasures 	
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 technological development with the technologies of each development division Provide highly competitive next-generation products ahead of competitors through collaborating with research institutions and sharing a technology roadmap spanning multiple generations with leading-edge customers 	

ltem	Main Potential Risks	Main Risk Management Initiatives
4. Procurement, Production and Supply	Interruptions in 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 BCPs, establish alternate production capabilities, develop multiple sources of important parts, seismically reinforce plants, etc. Build a system for the stable supply of products by sharing forecasts based on demand projections with suppliers to ensure the early procurement of parts and production leveling
5. Safety	Safety-related problems with the Company's products could lead to damages suffered by customers, liability for damages and a decline in credibility	• Based on the "Safety First" ³ approach, thoroughly implement safety design at the product development stage, promote safety training and establish a reporting system in the event of an accident
6. Quality	The occurrence of a product defect could lead to liability for damages, costs for countermeasures and a decline in 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 does business 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, Board of Directors and 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. Furthermore, infringement of the intellectual property rights of third parties could lead to liability for damages	 Advance the R&D strategy, business strategy and intellectual property 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	 Establish an information security system that conforms to global standards by launching a dedicated security organization and having security assessments conducted by external experts Establish globally standardized rules and regulations for information management
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 ongoing improvements to work environments and promote health and productivity management, including having top management share direction through regular employee meetings, establishing training plans for the next generation of human resources, 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	 Set industry-leading medium- to long-term environmental goals⁴ Reduce greenhouse gas emissions from product use. Reduce overall energy consumption and increase the ratio of renewable energy used at plants and offices Provide technologies that help reduce the power consumption of semiconductors
12. The Novel Coronavirus (COVID-19)	The spread of COVID-19 could slow the Company's business activities or lead to the deterioration of global economic conditions	 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 global and regional political conditions, economic conditions, financial and stock markets, foreign exchange fluctuations and other factors	Take necessary measures to counter such risks

3 Safety First: Company slogan that prioritizes the safety of every person connected with our business activities 4 Refer to Medium- and Long-term Environmental Goals on p. 35



Sustainability Initiatives in the Value Chai

Information Security

As the data society develops and the importance of information security increases, we take active measures to use data including digital transformation and achieve information security effectively.

Main activities

Creating information security systems



We established a system centered around the Vice President and General Manager, Information Security, and are implementing integrated security measures on a global scale.



Information security management

We identify risks by conducting periodic risk assessments and internal audits and implement technological, human, organizational and physical security measures.

Responses to security threats



To respond to cyberattacks and information leaks, which are major security threats in modern society, we actively introduce advanced technologies and have specialized organizations create systems to establish mechanisms for reliable monitoring.





We established global standardized information security rules and regularly conduct checks on compliance status and provide education for all relevant parties.

Supply chain security



We respond to customer requests and monitor the status of security at suppliers so that we can securely use confidential information and customer information in our business activities without compromising utility.

Increasing resilience



To prepare for the occurrence of security incidents, we established a specialized incident response organization and have established systems so that we can share incident information at an early stage and promptly respond and recover.

Overview of Information Security

Mechanisms that support information security activities



Systems established in preparation for Day-to-day activities implemented globally emergencies



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. The Chairman of the Board, CEO and corporate director in charge of finance serve as spokespersons as required at IR conferences in and outside Japan and strive to engage directly with investors. In addition to holding quarterly earnings release conferences, we actively share our business strategies and growth story at the Medium-term Management Plan briefings and on IR day.

The IR Department, which was established under the direct control of the CEO, also appropriately supplements the explanation through individual interviews and regularly reports opinions from investors to management so that feedback can be of use in management.

Evaluation from Third-party Institutions

Our sustainability initiatives have received high appraisal from evaluation organizations around the world. We have continued to be selected as a constituent stock under leading global ESG investment indices, including the DJSI¹ Asia Pacific Index, FTSE4Good Index² and MSCI World ESG Leaders Indexes³, Euronext Vigeo World 120 Index⁴ and STOXX Global ESG Leaders indices⁵, and in 2021, we were also rated as a low-risk company in Sustainalytics' ESG Risk Ratings⁶.

We also ranked number 1 among Japanese companies in the second ROESG Rankings⁷ (2020 edition) implemented by Nikkei Inc. and QUICK Corp. ESG Research Center, with our superior capital efficiency and dedication to ESG engagement earning a significantly high score.

Additionally, all Group companies operating in Japan once again received recognition as top 500 companies under the 2021 Certified Health & Productivity Management Outstanding Organizations Recognition Program⁸.

sustainalytics.com/legal-disclaimers.

1 DJSI: Dow Jones Sustainability Indices. An ESG (environmental, social and governance) investment index of S&P Dow Jones Indices LLC. The DJSI Asia Pacific covers companies in that region.

2 FTSE4Good Index: An index related to environmental performance and corporate social responsibility developed by FTSE Russell.

3 MSCI World ESG Leaders Indexes: Companies that have high ESG performance are selected from the MSCI Global Sustainability Index, an ESG investment index developed by Morgan Stanley Capital International (MSCI). Please check the link for the logo's disclaimer. www.tel.com/csr/review/

4 Euronext Vigeo World 120 Index: An index selected by NYSE Euronext and Vigeo Eiris composed of 120 companies that excel from an ESG perspective.

5 STOXX Global ESG Leaders indices: STOXX, a subsidiary of Deutsche Börse, selects companies that meet its evaluation standards based on the results of research from the ESG research company Sustainalytics.

6 Sustainalytics' ESG Risk Ratings: An ESG risk measured for institutional investors by Sustainalytics in the Netherlands. The rating is based on a company's exposure to industry-specific material ESG risks and how well a company is managing those risks. Copyright ©2021 Sustainalytics. All rights reserved. This article contains information developed by Sustainalytics (www.sustainalytics.com). Such information and data are proprietary of Sustainalytics and/or its third party suppliers (Third Party Data) and are provided for informational purposes only. They do not constitute an endorsement of any product or project, nor an investment advice and are not warranted to be complete, timely, accurate or suitable for a particular purpose. Their use is subject to conditions available at https://www.

7 Nihon Keizai Shimbun, March 29, 2021. ROESG: An integrated index of management sustainability that integrates ROE, which is an indicator of capital efficiency, and ESG, a non-financial index of sustainability.

8 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



Sustainability Initiatives in the Value Chai

As a part of our shareholder relations activities, company executives play a central role in active and constructive dialogue with our major institutional investors and proxyadvisory firms. In addition to explaining the Shareholders' Meeting agenda, we continuously engage in dialogue on a wide range of topics including the business environment, ESG and sustainability initiatives, and respond to business risks and opportunities including social and environmental issues in order to 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 the notice in both Japanese and English on our website to provide information to shareholders in a timely manner. In addition, we analyze the results of the exercise of voting rights and report to the Board of Directors to further enhance engagement with investors.

