Chapter 4     Toward Further Growth
Medium- to Long-term Outlook

Societal Trends
Society today is facing a variety of challenges, including prolonged outbreaks of COVID-19, changes in social conditions due to conflicts between nations, abnormal weather conditions and natural disasters caused by climate change, human rights issues, demographic changes, stagnation of supply chains, geopolitical risks, cyber-attacks and so forth. Mitigating climate change and eliminating inequality in human rights in particular are pressing issues, and global efforts involving not only international organizations and national governments but also by the private sectors are expected to become more important going forward.

Advancement of Digitalization in Society
As digitalization in society accelerates, lifestyles and business models are changing drastically with the creation of new technologies and services. In addition, the demand for semiconductors to support these societal trends is continuously growing along with technological innovation. The market was driven by personal computers in the 1990s and mobile devices such as smartphones in the 2000s. Today, the spread of IoT, AI, 5G/6G, cloud computing, the metaverse and other technologies are further increasing the demand for semiconductors. Going forward, it is expected that there will be a shift to a world where people are connected with everything in society through the shift to EVs for automobiles, autonomous driving, development of smart cities as well as smarter industries in the plant, agriculture, medical and energy sectors.

Future of Computer Technology and Semiconductors
As data-driven society progresses rapidly, the computer technology that is responsible for information processing will also evolve. In addition to conventional bit-based computers such as personal computers and data servers that perform mathematical processing, new technologies such as quantum computers and brain-inspired computers that copy the movements of the human brain are expected to emerge going forward. A variety of services and products are expected to give color to future society by processing enormous amount of data at high speeds and with low power consumption in accordance with the characteristics of each computer technology.

In addition, the semiconductor market that supports computer technology is also expected to evolve under the three scenarios of Moore’s Law, Customization and Hyper-Mass.

Climate change

Human rights

Demographic changes

Supply chain

Geopolitics

Cyber security

Initiatives to Achieve Further Growth of Tokyo Electron
We achieved the financial model for fiscal 2024 in the previous Medium-term Management Plan, formulated in May 2019, two fiscal years ahead of schedule.

In response, we formulated a new Medium-term Management Plan and a Vision in June 2022 to achieve further growth. The new Medium-term Management Plan sets financial targets as well as key indicators including areas related to ESG such as efforts to reduce greenhouse gas emissions to net zero. We will put our Corporate Philosophy into practice by promoting TSV (TEL’s Shared Value), steadily implementing the new Medium-term Management Plan, and realizing our Vision for mid- to long-term profit expansion and continuous corporate value enhancement.

Customization: As applications and services diversify, there will be demand for semiconductor devices that are optimized for specific applications. The overall optimization of technologies such as design and manufacturing technology as well as implementation and software technology as well as goal of maximizing efficiency are expected. In this scenario, there will be value in quickly providing the best manufacturing method solution to meet the requirements of customers who manufacture semiconductor devices.

Moore’s Law: There will continue to be increasing demand for performance improvements through scaling and integration in the manufacturing of semiconductor devices in order to further increase the computational power of computers. In this scenario, there will be value in introducing innovative technologies as well as controlling manufacturing costs.

Hyper-Mass: There will be demand for an enormous amount of semiconductor devices for high-capacity data communications and their processing and analysis. Additionally, overwhelming cost reductions will be necessary to realize a world in which everyone can enjoy the benefits of ICT (information and communication technology). In this scenario, there will be value in ultra-efficient productivity, including for non-advanced devices. In addition, the provision of manufacturing methods that autonomously optimize environmental impact will also be important.
The world is currently pushing firmly ahead with implementing ICT (information and communication technology) as well as taking action to realize decarbonization in order to build a strong and resilient society in which economic activities do not stop under any circumstances.

Semiconductors are growing even more important as social infrastructure with increasing technological demands such as larger capacity, higher speed, higher reliability and lower power consumption.

Tokyo Electron will strive toward medium- to long-term profit expansion and continuous corporate value enhancement by continuously creating high-value-added, leading-edge equipment and technical services to apply its expertise as a manufacturer of semiconductor production equipment and using all management resources, including its employees who create and fulfill company values.

Based on these activities, we will realize our Vision, which specifies our medium-to long-term business aspirations and the direction of our near future; practice our Corporate Philosophy, which specifies our mission in society and the purpose of our existence; and meet the expectations of all of our stakeholders.

We started our 60th fiscal year in April 2022. Going forward, we will continue to take on challenges and evolve to be a company filled with dreams and vitality that is loved and highly trusted by all stakeholders.

Corporate Philosophy

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