Value Creation Story

# Characteristics of Semiconductor Production **Equipment Business**

The role of semiconductors is becoming increasingly important as the spread of AI and IoT accelerates the transition to a data-driven society. Digital technology usage continues to expand, driving the demand for large volume and diverse semiconductors while also demanding higher performance. Advances in semiconductor technological innovation, in addition to larger capacity, higher speed, improved reliability and lower power consumption, are anticipated to progress further. This increases the importance of semiconductor production equipment.

In an environment where semiconductor technological innovation drives the growth of the production equipment market, in this way, it is vital for semiconductor production equipment manufacturers to utilize specialized expertise in a variety of fields and develop equipment with highest performance to continuously expand business. This requires comprehending the needs of customers early on based on a solid relationship of mutual trust, and conducting R&D across multiple generations with a futureoriented perspective. In addition, we must collaborate with consortiums engaged in creating leading-edge technologies and

carry out R&D at a global level. A solid management and financial foundation is essential to perform these activities consistently and

Furthermore, in recent years, there has been a proactive push toward digital transformation (DX), such as the use of AI, to offer high-value-added technical services that support the stable operation of equipment.

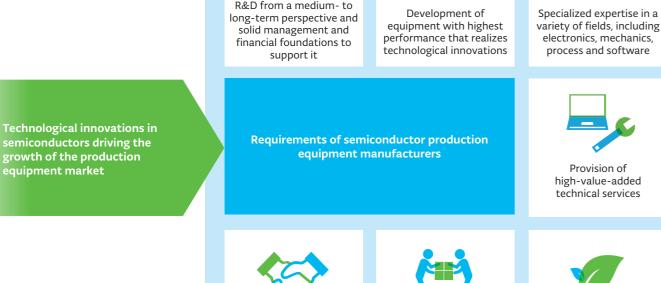
In addition to these aspects, in our business activities, it is crucial to build a sustainable supply chain based on partnerships with various suppliers involved in parts and materials supply, equipment assembly and adjustment, customs clearance, logistics

Moreover, semiconductor production equipment manufacturers are required to contribute to the development of semiconductors with high performance and lower power consumption, improve manufacturing equipment productivity and streamline operations in plants and offices, as part of their response to reducing environmental impact.

Provision of

Measures to reduce

environmental impact



Solid relationship of

mutual trust

with customers

Building of sustainable

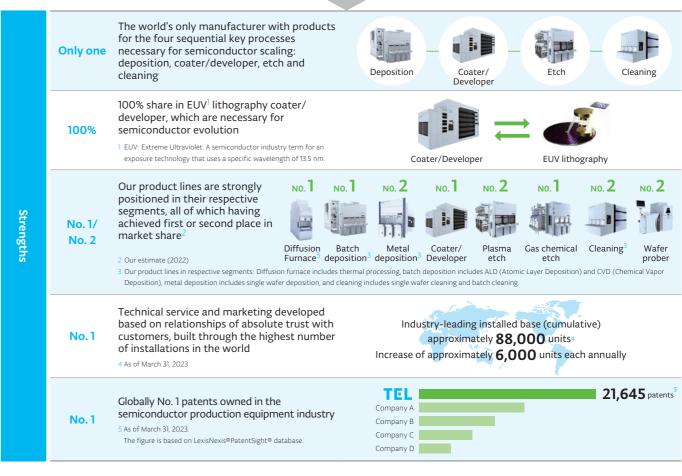
supply chains

# The Driving Forces of Growth and Strengths behind Our Company

From its founding, we have treasured the trust and reliability of our stakeholders, which serves as the foundation for our unique business model. We have also developed three key driving forces of growth: "abundant technological capabilities cultivated as an industry leader," "absolute trust from customers based on our reliable technical services," and "challenging spirit of our employees,

who are capable of flexibly and rapidly adapting to changes in the environment." By maximizing the strengths created by these driving forces in our business activities, we aim for further growth and strive for medium- to long-term profit expansion and continuous corporate value enhancement.

#### Abundant technological capabilities cultivated as an industry leader • We generate innovative and diverse technologies through joint development with our customers and collaboration with world-leading consortiums, and promptly bring high value-added next-generation products to market • Proactive R&D investment aimed at creating leading-edge technologies based on solid management and financial foundations • Optimization and improved efficiency of product development through the promotion of DX Absolute trust from customers based on our reliable technical services • Dedication to improving customer satisfaction level and building of relationship of mutual trust with the aim to be the sole strategic partner for customers Force • Timely provision of high-value-added technical services based on a long track record in response to the increasingly advanced and diverse technological needs of customers • Provision of highly efficient and high-quality services such as remote maintenance services using AI and digital technologies, and predictive maintenance using operational data of equipment Challenging spirit of our employees, who are capable of flexibly and rapidly adapting to changes in the environment • Based on the idea that "our corporate growth is enabled by people, and our employees both create and fulfill company values," we promote Drivin management that emphasizes employee motivation Force • Implementation of "TEL Values," which summarize the company culture that we have treasured since our founding, values and codes of conduct 3 for all employees • Understanding issues and implementation of measures based on employee engagement surveys



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## **Material Issues**

#### **Identifying Material Issues**

Every year, we look at social issues and business environments, consider risks and opportunities, and examine the opinions and requests of all stakeholders to identify our material issues following discussions and approval at the Corporate Officers Meeting, participated in by the CEO, and a report to the Board of Directors. We strengthen our "Product Competitiveness" that continuously creates next-generation products with high added value for the future by drawing on our specialization, and our "Customer Responsiveness" as their sole strategic partner based on the strong trust of our customers, and through pursuing innovative technologies, and along with engaging in "Higher Productivity" that continuously pursues operational efficiency through operations that prioritize the improvement of business operations and quality by drawing on our digital technology, we shall work to enhance our "Management Foundation" including governance, compliance, risk management and human capital in order to support these from a strong financial foundation based on profits.

Continuously create high value-added next-generation products

Strong relationship based on trust Sole strategic partner

Product Competitiveness Pursuit of operational efficiency

Higher Productivity

Management Foundation

Material Issues Identification Process

#### Issues Awareness

#### Social Issues

 Climate change, human rights issues, geopolitical confrontation, supply chain management, cybersecurity, price rises, etc.

#### **Business Environment**

- Further expansion of semiconductors and semiconductor production equipment market as we move rapidly to a data-driven society
- Initiatives for the preservation of the global environment
- Human rights initiatives
- Further strengthening of corporate governance

#### Risks for Our Company and Main Initiatives

- Identify the following cross-division and comprehensive key risks across the entire Group to build a solid financial foundation based on the Medium-term Management Plan Market fluctuations, research and development, geopolitics, procurement, production and supply, safety, quality, environmental issues, laws and regulations, intellectual property rights, information security, human resources, etc.
- The main risk management initiatives have been reviewed and deployed

#### Stakeholder Engagement

Return of profit generated from business activities

Shareholders/Investors

 Realization of medium- to long-term growth and enhancement in corporate value

#### Customers

- Propose optimal solutions that contribute to value creation for customers
- Spread environmentally friendly products and services with focus on safety and quality

#### Suppliers

 Further improving added value of products and services through collaboration with us, and constructing a sustainable supply chain

#### Employees

 Creating a workplace environment replete with dreams and vitality that enables a diverse range of people to realize their full potential, based on mutual trust between the organization and the individuals

#### **Local Communities**

- Promotion of regional revitalization and environmental preservation
- Financial contributions through tax payments and investments

#### Governments/Associations

- Providing solutions that help the industry and society solve issues and develop
- Carrying out business activities that comply with laws and regulations, industry codes of conduct, etc.

#### **Identifying Material Issues**

- Identify material issues based on their importance to society and their importance to business
- Determine annual goals for each material issue and clarify SDGs to address<sup>2</sup>
- Organize material issues related to the value chain
- Discussion and approval at the Corporate Officers Meeting and report to the Board of Directors



#### Refer to Risk Management on p. 69

#### **Identified Material Issues**

Material Issues	Awareness as Material Issues	Main Initiatives (page in this report)	Initiatives to the SDGs
Product Competitiveness	Continually creating and providing high value-added next-generation products to achieve technological innovation in semiconductors is vital for our medium- to long-term growth  Solid management and financial foundations are required to continue to develop next-generation products with leading-edge technology	□P.29 Strengthening Research and Development Capabilities □P.29 Shift Left □P.29 Collaboration with Consortiums and Academia □P.29 Product Marketing □P.30 New Product/Function Development □P.30 Intellectual Property Management	PROTECTION TO THE COLOR OF
Customer Responsiveness	Building strong relationships based on trust with our customers and pursuing technological innovation in semiconductors with our customers as their sole strategic partner are vital for our growth  It is important to work to further improve customer satisfaction, one of our Management Policies, through proposing optimal solutions that contribute to customer value creation, and providing the Best Technical Service with high added value in a prompt and appropriate manner	■ P. 37 Proposing Customer Solutions Leveraging a Wide Range of Product Lineup  ■ P. 37 Expansion into the Diversified Semiconductor Market  ■ P. 38 Initiatives for Improvement of Customer Satisfaction  ■ P. 41 Globalize Field Engineers and Strengthen Customer Responsiveness  ■ P. 41 Promotion of High-value-added Services  ■ P. 42 Initiatives for Continuous Equipment Support	Ontribute to customer innovation and value creation through the proposal of optimal solutions and the provision of high-value-added services      Ensure sustainable forms of production and consumption throughout product life cycles by considering safety and the environment
Higher Productivity	It is important to work to enhance corporate value, expand profits in the medium- to long-term, and pursue operational efficiency by practicing operation that prioritizes quality and making work more efficient across all business activities      It is vital to establish a competitive edge through prompt and appropriate management decisions as well as to engage in improving productivity in all aspects, from the product planning and development stages to maintenance, by promoting Shift Left and drawing on our digital technologies	■P. 30 New Product/Function Development ■P. 30 The Use of Materials Informatics ■P. 33 World-class Manufacturing Operations ■P. 41 Promotion of High-value-added Services ■P. 57 Quality ■P. 58 Continuous Improvement of Business Operations and Creation of New Values	Pursue productivity, continuously increase management efficiency, and contribute to sustainable economic growth  Promote streamlined business operations and quality management throughout the value chain, ensuring sustainable forms of production and consumption
Management Foundation	<ul> <li>It is vital to work to enhance a strong management foundation that underpins our business activities, focused around the three material issues above</li> <li>It is important to promote initiatives such as corporate governance and risk management, safety and quality, compliance, human rights, and human capital, and to expand sustainable operation</li> </ul>	□P.44 Human Resources □P.47 Human Rights □P.48 Compliance □P.50 Supply Chain Management □P.51 Environment □P.56 Safety □P.57 Quality □P.58 Continuous Improvement of Business Operations and Creation of New Values □P.59 Corporate Governance □P.69 Risk Management □P.71 Information Security	3 GOOD HAALIN 3 AND RELIGIBLED  10 REGORDS 11 PARTICIPATE  11 PARTICIPATE  13 ALIGN  14 PARTICIPATE  15 TOWNER  16 PRACE HITTER  AND STRICKED  17 PARTICIPATE  18 RECORT MORE AND  AND STRICKED  18 RECORT MORE AND  AND STRICKED  19 PROBLED  10 PROBLED  11 ALIGN  12 PARTICIPATE  13 ALIGN  14 PARTICIPATE  15 RECORT MORE AND  AND STRICKED  A

respect for human rights and environmental awareness

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<sup>2</sup> Refer to the "Sustainability goals and results" on our website for details: www.tel.com/sustainability/goals-and-results/index.html

Value Creation Story

## Medium-term Management Plan

#### Main Initiatives in the Medium-term Management Plan

Amid the rapid technological innovation of the electronics industry, Tokyo Electron, as the leading company in semiconductor production equipment, is actively expanding its business based on our Corporate Philosophy: "We strive to contribute to the development of a dream-inspiring society through our leading-edge technologies and reliable service and support." With our 60th

anniversary approaching, in fiscal 2023, we formulated a new Vision aimed at further growth to become "A company filled with dreams and vitality that contributes to technological innovation in semiconductors," announced our Medium-term Management Plan and launched various initiatives towards its achievement.

#### **Financial Targets**

This Medium-term Management Plan sets financial targets, aimed at future growth, of further improvements to our world-class operating margin and ROE in fiscal 2027. Amid the expectation of increasing demand for semiconductors and significant future growth in the semiconductor production equipment market, we will continue to strive to enhance product competitiveness and customer responsiveness, as well as improve productivity based on a solid management foundation we set of high profitability, in line with the material issue, strive for the Best Products, Best Technical Service, and to achieve medium- to long-term profit expansion and continuous corporate value enhancement.

Financial Targets (Target Year: Fiscal 2027)				
Net Sales	3 trillion yen or more			
Operating Margin	35% or more			
ROE	30% or more			

#### **Main Initiatives**

- Expand our business in the fields of our expertise, using our accumulated technology, in areas where we can leverage our management know-how
- •Introduce next-generation products with high added value required in the future by our customers into the market as early as possible and provide superior technological services
- Conduct proactive R&D investment worth more than 1 trillion yen in the five years from fiscal 2023
- •We will endeavor to sell parts and offer upgrades and modifications for the industry-leading approximately 88,000 units we have installed to date, and to resolve issues such as improved utilization rate and yield enhancement for the devices that our customers produce, while also aiming to expand revenue in the after-market by providing such advanced field solutions. In

# addition, in preparation to support future cumulative installed equipment of over 100,000 units, we will also focus on developing highly efficient high added-value service through such means as remote maintenance service and predictive maintenance utilizing device operating data and AI

•We will expand E-COMPASS, aimed at preservation of the global environment through the entire supply chain. We have formulated a roadmap and are conducting various activities aimed at achieving our medium-term environmental goals up to fiscal 2031 in order to strengthen environmental initiatives in our products, plants and offices. Also, we are driving initiatives to achieve our long-term environmental goal of reducing greenhouse gas emissions to net zero by 2050

#### **Corporate Governance**

The semiconductor production equipment market is expected to see significant growth also in the future, and we anticipate increasing our business sites, which currently number 83, in 18 countries and regions, to over 100 in the near future. In these circumstances, we consider it is important to work on enhanced corporate governance, in order to achieve sustainable growth. While aiming for a Board of Directors that is certain to always achieve an optimally effective supervisory function, we are also establishing a strong execution system and ensuring expansion of an operating rhythm that supports business execution in order to further facilitate growth-oriented management at our global bases.

From June 2022, we introduced a Corporate Officer system aimed at further strengthening governance, speedier decision making and agile business execution. The corporate officers are responsible for overall Group management and business execution as the highest rank on the executive side. They attend Board of Directors meetings where they explain their business execution, facilitating appropriate supervision of the executive side by the Board of Directors and enabling the officers to leverage deliberations appropriately and speedily at the Board of Directors in business execution.

#### Message from the GM, Finance Unit



**Hiroshi Kawamoto** Senior Vice President GM. Finance Unit

As we aim to expand medium- to long-term profit and continuously enhance corporate value, we will implement the following growth strategy, financial strategy, capital policy and shareholder return policy.

#### 1. Growth Strategy

As high growth is expected in the semiconductor market, we will continue to make aggressive R&D investments more than 1 trillion yen to maintain and improve our world-leading technological innovation during our Medium-term Management Plan period, which spans five years from fiscal 2023. At the same time, we plan to invest over 400 billion yen over five years to strengthen R&D, expand production capacity and improve productivity through capital investments.

In the Medium-term Management Plan, we have set financial targets for net sales of 3 trillion yen or more, an operating margin of 35% or more, and ROE of 30% or more by fiscal 2027. We aim for sustainable growth and pursue high capital efficiency, including improving ROE, by further enhancing the operating margin and asset efficiency, which were achieved in the previous Medium-term Management Plan, and striving to expand cash flow. We will maintain a solid financial position while aiming for world-class profit generation.

#### 2. Financial Strategy

As a frontrunner in the semiconductor production equipment industry with high growth potential, we have achieved significant growth. We will continue to effectively utilize the cash we have acquired thus far for our next growth investments and pursue further business expansion in areas where growth is expected to enhance our medium- to long-term corporate value. To realize our medium-term financial targets, we will implement the following financial strategies to support the targets:

- Stabilize management by securing working capital for anticipated business expansion
- Maintain a solid financial position
- Pursue appropriate cash allocation and balance sheet management

#### 3. Capital Policy

Through our engagement with capital markets, we continuously work to improve corporate value and capital efficiency.

Additionally, we will enhance our returns to shareholders through the expansion of profits and cash flow. The specific measures are as follows.

- Accurately understanding our own corporate value and evaluating stock prices and market capitalization
- Achieving an optimal capital structure with awareness of capital cost and capital profitability
- Executing continuous and aggressive returns to shareholders based on the expansion of cash flow

Backed by our recent strong profit growth and expectations for further growth in the future, our market capitalization has shown strong growth, with PBR (Price Book-value Ratio) of 4.7 as of the end of March 2023. As a result of the capital market's evaluation of our corporate value, stemming from our aggressive shareholder return policy, high-level growth investments, recruitment and fostering of excellent human resources based on our management strategy and collaborations with customers and suppliers and their results, our market capitalization has increased significantly compared to net assets. Furthermore, we executed a 3-for-1 stock split of common stocks effective April 1, 2023. By conducting this stock split, we established an environment that is easier for investing by reducing the amount per investment unit.

#### 4. Shareholder Return Policy

Our basic stance is to enhance shareholder value by returning to shareholders, made possible by achieving world-class mediumterm management targets and through a high level of dividends coupled with flexible repurchases of treasury stocks. Regarding dividends for shareholders, we mainly adopt a performancelinked model, aiming for a payout ratio of 50% of the net income attributable to owners of parent. (However, the amount of annual dividend per share shall not be less than 50 yen, and we will review our dividend policy if we do not generate net income for two consecutive fiscal years.) For repurchases of treasury stocks, we will execute it flexibly, taking into account the current cash position, funds for medium- to long-term growth investments, stock price levels and total return conditions. Note that we have resolved and commenced the repurchase of treasury stocks on May 11, 2023, with a limit of 10 million shares and a purchase amount limit of 120 billion yen.

We will continue to execute this financial strategy to realize our Vision and achieve our financial targets, while also contributing to the enhancement of corporate and shareholder value through engagement with capital markets.

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#### **Key Indicators for Continuous Corporate Value Enhancement**

The Medium-term Management Plan clearly defines financial and sustainability metrics as "key indicators for continuous corporate value enhancement." At quarterly review meetings, we regularly check the progress and action plans, and various activities are carried out under the responsible persons for each indicator.

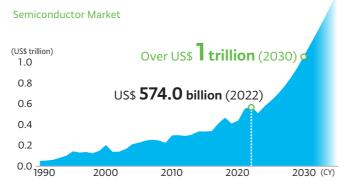
	Target Area	Objective Objective	Target Year	Fiscal 2023 Performance	Future Initiatives
		Net Sales: 3 trillion yen or more	Fiscal 2027	• 2,209.0 billion yen	
Finance		Operating Margin: 35% or more	Fiscal 2027	• 28.0%	Refer to Main Initiatives in the Medium-term Management Plan on p. 15-16
		• ROE: 30% or more	Fiscal 2027	•32.3%	
Research and Development		Continuously create high value-added next-generation products by implementing R&D expense of more than 1 trillion yen over 5 years	Fiscal 2027	• R&D investment 191.1 billion yen	• Further deliberate on and implement R&D strategies in the Medium-term Management Plan
		• Reduce total CO₂ emissions by 70% (compared to fiscal 2019)	Fiscal 2031	•76% reduction	Consider reestablishing objectives for further reductions
	Plants and Offices	A rate of 100% renewable energy usage	Fiscal 2031	• 91%	Promote visualization of energy usage and energy efficiency in business activities  Encourage the purchase of non-fossil certificates and secure a continuous supply of renewable energy
nvir		• Reduce energy consumption (per-unit basis) by 1% from the previous fiscal year at each plant and office	Every fiscal year	• Achieved goal at 6 of 11 plants or offices	Promote visualization of energy usage and energy efficiency in business activities
onn		Maintain water consumption (per-unit basis) at each plant and office at individual base year levels	Every fiscal year	• Achieved 9 out of 13 goals	Plan and implement actions related to water consumption reduction
nent	Logistics	Reduce CO <sub>2</sub> emissions of total logistics (own delivery) by 30%* by further promoting modal shift and joint delivery     Reestablish due to goal achieved	Fiscal 2027	• 11.4% reduction	Expand modal shift and joint delivery, and introduce electric vehicles
		• Reduce the usage ratio of wood packaging for products to 50% or less (packaging of semiconductor production equipment)	Fiscal 2024	•79.7%	Promote evaluations and explain and deploy to targeted customers
	Products	• Reduce per-wafer emissions of CO <sub>2</sub> by 30% (compared to fiscal 2019)	Fiscal 2031	• 20.8% reduction	• Implement ahead of schedule the plan to reduce emissions from targeted equipment
	Engagoment	Engagement survey score: Continuously improve (increase score compared to the previous survey) or achieve a score higher than the average of other companies in each region	Every survey	• From fiscal 2016 to fiscal 2023, the overall score increased by 18 points (6 points higher than the previous survey)	Identify current issues through survey result analysis     Plan and execute actions needed to improve employee engagement awareness
	Engagement	Employee retention rates* Japan: 99%, Overseas: Higher than the industry average     Excluding retirement at the mandatory retirement age and so on	Every fiscal year	<ul><li>Japan: 99%</li><li>Overseas: Higher than the industry average (96%)</li></ul>	Introduce a retirement reason analysis process as a company-wide measure     In companies with high turnover risk, promote individual analysis and initiatives targeting identified groups
Emplo	Careers	We have created an environment where every employee can create value for the Company's growth and for society with the support of supervisors and others by challenging themselves to do what they want while imagining their own futures (career paths) and growing.	Fiscal 2027	Enhanced career education for employees from new hires to those in their third year of employment	Conduct a reality check on career self-reliance* by generation and job type and consider effective measures     Implement measures to improve understanding of career self-reliance* among managerial class     Career self-reliance: Refers to the individuals thinking about their own careers and actively managing their career development
yees	Work-life Balance	• Annual paid leave utilization rate Japan: (1) 80%/(2) 90% Overseas: Equal to or better than the previous fiscal year's result	Japan: (1) Fiscal 2027/ (2) Fiscal 2031 Overseas: Every fiscal year	• Japan: 70.0% • Overseas: 65.6% (previous fiscal year's result: 73.1%)	Implement announcements to promote acquisition across all companies     Consider and implement acquisition promotion plans at each company
	Diversity, Equity & Inclusion (DE&I)	• Ratio of female managers Japan: 5%; Global: 8%	Fiscal 2027	• Japan: 2.7% • Global: 5.7%	Improve motivation through mentoring for candidates     Conduct executive roundtables at each company to deepen understanding of DE&I and gain support from management     Maintain and expand the talent pipeline (human resource development plan) through career discussions and career seminars (Japan)
Supply Chain Management Safety		Supply chain sustainability assessment implementation rate     Material suppliers: Covering at least 85% of our procurement spend     Logistics suppliers: 100% of customs-related operators     Staffing suppliers: 100% of employment agencies and contracting companies (internal contractors)	Every fiscal year	Material suppliers: Achieved 85% or more of our procurement spend     Logistics suppliers: Achieved 100% of customs-related businesses     Staffing suppliers: Achieved 100% of employment agencies and contracting companies (internal contractors)	Assured implementation of actions for understanding issues and remediation based on assessment
		Supply chain BCP assessment implementation rate     Material suppliers: Covering at least 85% of our procurement spend	Every fiscal year	Material suppliers: Achieved 85% or more of our procurement spend	• Assured implementation of actions for understanding issues and remediation based on assessment
		TCIR* No more than 0.10 (Globally No. 1 in the industry)  TCIR: Total Case Incident Rate. The number of workplace incidents per 200,000 work hours.	Fiscal 2027	TCIR 0.33 Special measures activity in accordance with the declaration of safety emergency Thorough investigation into the causes of personal accidents that are management priorities Special safety audits (understanding actual on-site work)	Continue efforts from the previous fiscal year Sisseminate safety regulations Strengthen appropriate safety training depending on the nature of the work Ensure feedback of equipment safety design information to the technical department
Corporate Governance		We are working at all times to establish an optimal and highly effective Board of Directors and an aggressive management execution system, and by continuously addressing issues based on evaluations of the effectiveness of the Board of Directors and input from institutional investors and other stakeholders, we will achieve solid corporate governance for enhancing corporate value over the medium to long term and sustainable growth.  Seeking a Board of Directors with high effectiveness  Audit & Supervisory Board System: Ratio of outside directors: One-third (including two females), Free and open discussions including corporate auditors  Off-site meetings: For discussions on medium- to long-term strategies, issues, etc. (twice annually)  CEO reports: Reports to the Board of Directors on the status of execution of key duties by the CEO (every Board of Directors meeting)  CEO mission: Information is shared concerning the CEO's mission for achieving the Medium-term Management Plan  Representative director assessment closed sessions: Sessions including directors and Audit & Supervisory Board members but excluding the representative director (once annually)  Operating rhythm supporting the execution of business  Corporate Officers Meeting: The highest decision-making body on the executive side (once monthly)  CSS (Corporate Senior Staff) meeting: Global, across-the-board coordination of company-wide business execution (four times annually)	Every fiscal year	1. Seeking a Board of Directors with high effectiveness  • As a company with an Audit & Supervisory Board, we improved the ratio of outside directors from the conventional one-third (4 out of 12) to one-half (3 out of 6)  • Off-site meetings: 2 times  • At every Board of Directors meeting, in principle, the CEO explains important matters concerning business execution  • CEO mission: Shared with members of the Board of Directors  • Closed session on evaluation of representative directors: 2 times  2. Operating rhythm supporting the execution of business  • Corporate Officers Meeting: 14 times  • CSS meeting: 4 times  • Quarterly review meeting: 4 times	<ul> <li>Aiming to become the top company globally in the medium to long term we will continue to work on each of the following matters to further strengthen the supervisory function of the Board of Directors and the management and execution functions of the executive side and will further enhance its effectiveness by regularly reviewing its progress.</li> <li>The company will systematically set agendas in line with medium to long term strategies and issues for growth, and will enhance discussions from a long term perspective</li> <li>The company will enhance the effectiveness of the Corporate Officers Meeting, the highest decision making authority on the executive side</li> <li>The company will conduct an analysis of the decision making of the Board of Directors, clarify the points of deliberation, and enhance opportunities for sharing information with outside directors and outside Audit &amp; Supervisory Board members on occasions other than board meetings and off-site meetings</li> </ul>
		Quarterly review meeting: Monitoring the progress of the Medium-term Management Plan (four times annually)			
Risk Management		<ul> <li>We are building and further improving a highly effective risk management system that supports a strong management foundation.</li> <li>We are enhancing risk management and compliance based on the slogan "Safety, Quality and Compliance. Our top priority. It's our pride."</li> <li>Together with establishing a dedicated Compliance Department at our headquarters and appointing a Chief Compliance Officer and Regional Compliance Head, we are also conducting assessments by external agencies and undertaking education.</li> <li>We are conducting supervision and monitoring through reports to the Corporate Officers Meeting—the highest decision-making body on the executive side—and the Board of Directors (twice annually).</li> <li>To conduct appropriate measures with certainty across the entire Group, we are identifying risks (12 risks in fiscal 2024) expected in the execution of business centered on the Risk Management Committee and deploying them in the activities of each company.</li> <li>We are continuously conducting activities to foster awareness about safety, compliance and risk management, and reflecting the awareness of all executives and employees as well as their autonomous and specific initiatives in our human resource evaluation.</li> </ul>	Every fiscal year	Promoted DX of risk management activities Strengthened risk management PDCA and the efficiency of risk identification and evaluation at the Group level Positioned the Risk Management Committee as a standing organization to promote the PDCA of company-wide risk management activities, and conducted biannual monitoring for risks assumed in conducting business Developed and implemented activity plans for relevant risks such as production risks and corporate risks at Group companies. Also, strengthened communication between the head office and Group companies for system enhancement Implemented compliance risk assessment through an external organization, and then improved and executed the compliance program	Establishing a highly effective risk management PDCA posture across all Group companies, early detection of significant risks assumed in business execution, and assured implementation of measures     Continually foster a corporate ethical culture to prevent serious incidents, and establish a compliance posture     Plan and further improve education and training     Emphasize and deploy training targeting managers

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#### Value Creation Story

#### **Outlook of Semiconductor Production Equipment Business**

With the acceleration of society's digital shift, vigorous investment took place in various fields including logic and foundry for leading-edge semiconductors along with semiconductors for vehicles and industry. The semiconductor market was worth in the range of US\$574.0 billion in 2022, and consequently, the wafer fab equipment market was worth approximately US\$100 billion. In the future, the importance of semiconductor technological innovation for the shift towards a data-driven society and decarbonization is expected to lead to significantly greater expansion of the semiconductor market, which is forecast to be worth over US\$1 trillion by 2030—growth that will more than double the current market.



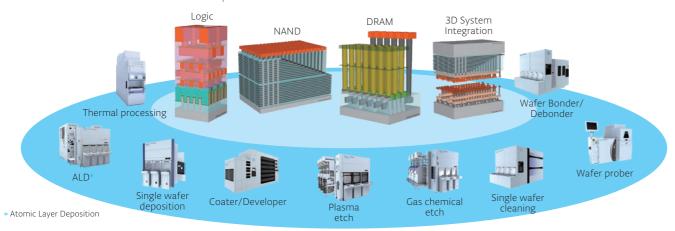
Source: WSTS (1990-2022) / IBS, June 2023 (2023-2030)

#### **Semiconductor Device Technology Evolution and Business Opportunities**

Further growth in the semiconductor and semiconductor production equipment markets will be supported by technological innovation in semiconductor devices. In logic/foundry, NAND and DRAM applications, increased demand for further scaling, lower

manufacturing costs per transistor or bit through higher multilayering, lower power consumption and higher speeds is expected. We will utilize our broad product lineup to contribute to the manufacturing of devices with a highly competitive advantage.

#### Semiconductor Devices and Our Product Lineup



#### Logic/Foundry

Increasing patterning complexity requires co-optimization between unit processes. It is expected that high-NA EUV<sup>1</sup> lithography technology will be applied to mass production to achieve further scaling going forward. In addition to scaling through high-NA EUV, various new technologies and structures will be introduced. Transistor structures are expected to shift from FinFET<sup>2</sup> 3D models to new structures (GAA NS<sup>3</sup> and CFET<sup>4</sup>). In wiring technology, progress is being made in development of backside wiring to reduce power supply wiring resistance, while also effectively using new materials instead of Cu, and available space. Our front-end process equipment and wafer bonding equipment will contribute to the realization of this kind of technological innovation.

- 1 High-NA EUV: Refers to next-generation EUV, an exposure technology that shortens the resolvable line width by increasing the numerical aperture (NA)
- 2 FinFET: Fin Field Effect Transistor, a process technology with a three-dimensional structure in the shape of a fin
- 3 GAA NS: Gate All Around Nanosheet, a next-generation technology for FinFET
- 4 CFET: Complementary Field Effect Transistor, transistor with a new structur

#### NANI

3D NAND multi-layering is progressing even further, and layer counts will increase to 300 and 500 in the future. Accordingly, this will require etch that enables processing of deep holes and trenches with a high aspect ratio<sup>5</sup>, high productivity sacrificial film removal and atomic level deposition on 3D structure. Also, there is demand for greater capacity and increased data transfer speed, which requires enhanced performance of peripheral circuits to achieve, however there remain issues due to limitations on performance and scaling arising from the thermal processing used when molding memory cells. To resolve this, development is underway aimed at mass production of 3D integration technology to manufacture and bond memory cells and peripheral circuit in separate wafers. We are striving to further improve the performance of our etch, ALD and wafer bonding equipment to meet these technological requirements.

 ${\bf 5}\,$  Aspect ratio: Depth to width ratio of the pattern formed on the wafer

#### DRAM

In DRAM, we believe that requirements will also grow not only for technology to further advance 2D scaling, but also for technology for high aspect ratio capacitor and contact formation. While many of our deposition, etch and cleaning systems are used for this technology, we will continue to provide new products and solutions to achieve even higher density. In the future, along with advancement in 2D scaling, a shift to 3D DRAM, that adopts 3D structures, is also expected. In 3D DRAM, as with the shift from 2D to 3D NAND, vertical multi-layering will drive scaling in place of 2D lithographic scaling. This is particularly expected to increase the importance of the deposition and etch processes.

#### ■3D System Integration

In 3D integration using wafer bonding technology, in addition to NAND, progress is also being made in aspects such as the application of mass production of stacked CMOS image sensors for the production and bonding of separate wafers for pixel and signal processing circuits. Also, development is underway of 3D system integration for 3D packaging of high-capacity memory, etc. to logic circuits to realize higher speeds, lower power consumption and increased functionality of devices. These are used for bonding wafers together and for bonding operation-tested KGD<sup>6</sup>. We contribute to evolve the leading-edge device and the system level performance by providing wafer bonding and laser edge trimming systems based on the technology and experience we have cultivated in front-end processes.

6 KGD: Known Good Die. Semiconductor chips that are quality assured, including for reliability

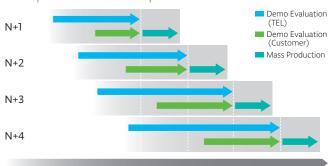
#### **Development for Several Generations through Collaboration with Customers**

With the increasing technical difficulty of scaling, in addition to the evaluation of the Nth mass production generation, development from N+1 to N+4 is also progressing simultaneously for leading-edge memory, logic and foundry. As a semiconductor production equipment manufacturer, high technology development capabilities, resources in engineering and a strong financial foundation are required in order to continue this kind of development and evaluation with semiconductor manufacturers.

We work with semiconductor manufacturers, who are our customers, in our respective roles to co-create long-term technology roadmaps and develop and evaluate technologies up to four generations ahead. We are able to quickly demonstrate both equipment and process performance by conducting evaluations using wafers that are actually used in the manufacturing processes of our customers. Through initiatives like this, we steadily create

high-value-added products and strive to capture new business opportunities.

Development and Evaluation up to Four Generations Ahead



#### **Further Strengthening of Development Structure**

In order to advance the simultaneous development and evaluation of leading-edge technology up to four generations ahead, we will endeavor to further strengthen our development structure.

In 2023, we completed a new development building at the Tokyo Electron Technology Solutions Hosaka Office for the development of film deposition and gas chemical etch as well as corporate development, and in 2025, we are also planning to

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Tokyo Electron Technology Solutions Hosaka Office New Development Building (Completed in July 2023)



Tokyo Electron Miyagi New Development Building (Completion scheduled for spring 2025)

operate a new development building at Tokyo Electron Miyagi for etch system development, and another at Tokyo Electron Kyushu for coater/developer and cleaning system development.

In the future, we will continue proactive R&D and capital investment to ensure the realization of sustainable growth.

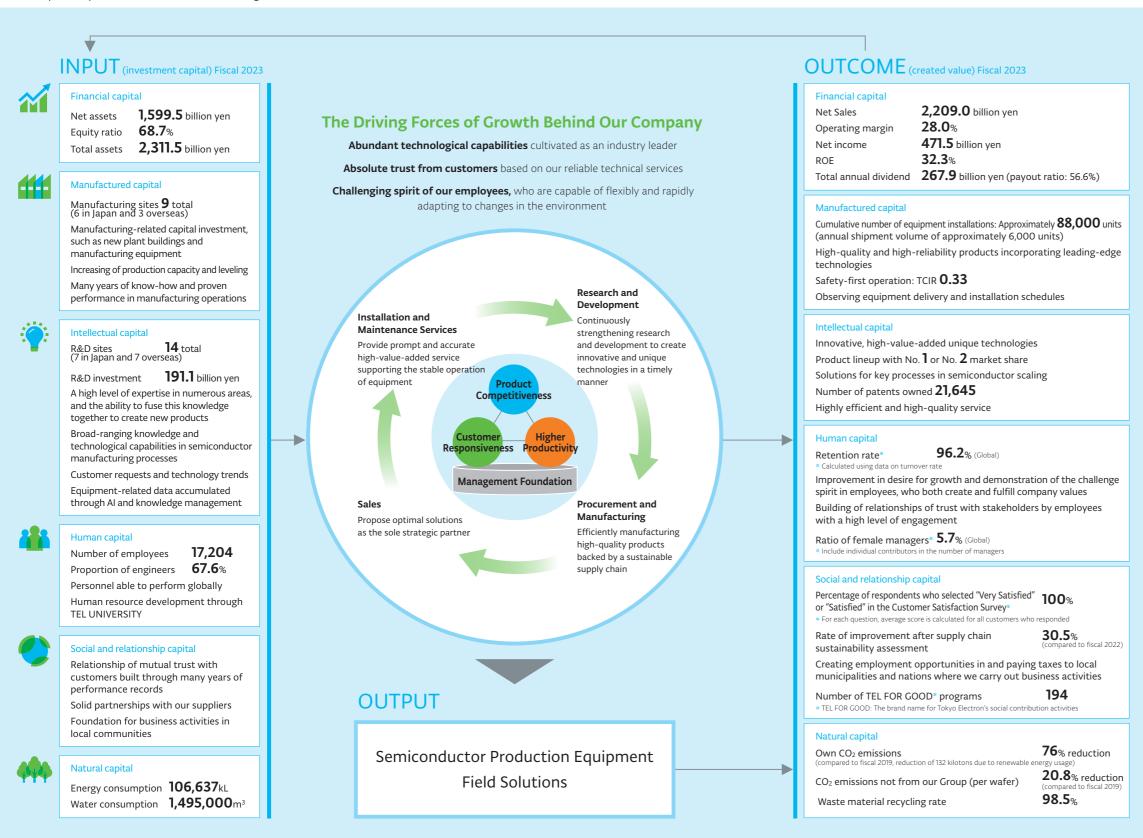


Tokyo Electron Kyushu New Development Building (Completion scheduled for summer 2025)

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## Value Creation Model

We will make the most of the capital we own and continue to provide new value that contributes to the resolution of issues and development of industry and society through the development of a value chain in our business activities in research and development, procurement and manufacturing, sales and installation and maintenance services.



#### **IMPACT** Stakeholders Return of profit generated from business activities Shareholders, Investors Realization of mediumto long-term growth and enhancement in corporate value Value creation and continuous growth for customers Improving productivity Customers (utilization rate and yield) and reduced in semiconductor manufacturing Deployment of business operations across our competitive supply chain **Suppliers** Improving added value of products and services handled, through collaboration with us Creating a workplace with dreams and vitality that enables employees to realize their full **Employees** potential based on mutual trust between the organization and individuals The revitalization of and sustainable developmer in local communities resource development, employment opportunities, initiatives to preserve the local environment and paying taxes to local Carrying out business activities that comply with laws and Governments Associations regulations, industry codes of conduct and other rules Initiatives that help the

industry and society

through collaboration

solve issues and develop

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## Stakeholder Engagement

Actively providing opportunities for engagement with our stakeholders and promoting mutual communication allows us to accurately comprehend their demands and expectations as we deploy our business activities. We strive to build a solid relationship of mutual trust with all the stakeholders surrounding our company by working steadily to fulfill our roles and responsibilities in society.

vernments/Associations

#### Relationship with Stakeholders

- Shareholders and investors provide our company's capital, while expressing their opinions, demands and expectations of our company from the shareholder/investor perspective through constructive dialogue and through exercising their voting rights at the Shareholders' Meeting
- We share our management vision and growth scenario with shareholders and investors, and incorporate the opinions and demands we hear from them into our management in an effort to enhance our corporate value

#### Value Provided to Stakeholders

- Return of profit generated from business activities
- Realization of medium- to long-term growth and enhancement in corporate value

#### Relationship with Stakeholders

- Governments and associations not only require companies to comply with laws, regulations, industry codes of conduct and other rules, but also aim to work in partnership with companies to bring about development at the industrywide, national and community level
- While carrying out our business activities in compliance with such laws, regulations, industry codes of conduct and the like in the countries and communities where we operate, we contribute to social development and the resolution of societal issues by accurately grasping social needs

#### Value Provided to Stakeholders

- Solutions that help the industry and society solve issues and develop
- Business activities that comply with laws and regulations, industry codes of conduct and other rules

#### Relationship with Stakeholders

- Local communities are striving to offer more value by working to foster local industry and educate human resources
- We contribute to the development of the local communities where we operate through employment opportunities, initiatives to preserve the local environment and paying taxes to local municipalities

#### Value Provided to Stakeholders

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

### Earnings release conference, Medium-term Management Plan briefing, IR Day Technology conference IR conference, IR road show\*, individual IR interview Joint development Shareholders' Meeting Customer Satisfaction Survey IR road show: IR activities presented directly to shareholders and investors Production update Cooperation with government and briefing administrative agencies TEL Partners' Dav/ TEL E-COMPASS Day Collaboration with global initiatives and Sustainability NGOs etc. assessment Industry group STQA\* audit activities STQA: Supplier Total Quality • TEL FOR GOOD Employee meeting (Social contribution activities) Global engagement survey Tours of plants and offices Training and workshops Environmental debriefing Local Communities

#### Relationship with Stakeholders

- Customers purchase the semiconductor production equipment we provide and also utilize services necessary for maintaining that equipment
- We not only provide products, services and solutions but also create technology roadmaps spanning multiple generations and carry out joint technology development with customers

#### Value Provided to Stakeholders

- Best Products incorporating leading-edge technologies
- High-value-added Best Technical Service

Suppliers

- Environmentally friendly products and services with a focus on safety and quality
- Solutions that satisfy a variety of application needs

#### Relationship with Stakeholders

- Suppliers supply the materials and human resources necessary for our company's business administration, and also perform customs clearance, logistics operations and other operational services
- In addition to purchasing these materials and operational services, we cooperate with our suppliers on the further development and improvement of these aspects and enhancement of their quality.
   We build a sustainable supply chain that takes into account labor, the environment, health and safety, ethics and the like

#### Value Provided to Stakeholders

- Further improving added value of products and services through collaboration with our company
- Business opportunities in the semiconductor production equipment markets
- Maintaining soundness and strengthening competitiveness throughout the entire supply chain

#### Relationship with Stakeholders

- Our employees contribute to enhancing our corporate value by demonstrating their individual capabilities and pursuing personal growth through making use of opportunities for education
- We promote the improvement of employee engagement under management that emphasizes employee motivation

#### Value Provided to Stakeholders

- A workplace environment replete with dreams and vitality that enables employees to realize their full potential based on mutual trust between the organization and individuals
- Opportunities for career development and skill improvement
- Fair performance review and remuneration commensurate with results

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