# **ADVANTEST**®



Integrated Annual Report 2023

# NOVATION MONOTION MON

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### **Editorial Policy**

Advantest's Integrated Annual Report presents information that is important to understanding our value creation initiatives, spanning our financial performance, management philosophy, business model, strategy, and governance, in a format that embodies our integrated perspective on corporate value.

It aims to provide content useful to a wide range of stakeholders, including shareholders and investors.

The 2023 edition of the Report is structured as follows.

#### Summary

This section covers basic information essential to understanding the Advantest Group, including a message from our Group CEO, an organizational overview, our history, and our market environment. It also provides detailed information on our Grand Design and Second Mid-Term Management Plan (MTP2), which form the backbone of our business strategy.

#### Value Creation

This section describes our value creation process and an overview of our financial and non-financial capital. In depicting the value-creating power of non-financial capital, such as relationships with customers and new technology development, we have attempted to give readers the sense that they are right there on the front lines of our business.

#### Sustainability

This section introduces our ESG Action Plan 2021- 2023 and the progress of the initiatives we have launched within its framework. It can be read in conjunction with our Sustainability Data Book which provides more detail on our sustainability efforts. (https://www.advantest.com/sustainability/report/)



#### Information

This section provides useful information about Advantest, including our products, semiconductor test technology, and key financial data over the past 11 years. Starting this year, we now also provide a .csv file of SASB standards data.

#### Reporting Guidelines, etc. Consulted for This Report

- · International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC)
- · GRI Standards
- · TCFD Recommendations
- · SASB (US Sustainability Accounting Standards Board) Standards

#### **Reporting Period & Scope**

This report covers the period of FY2022 (April 1, 2022 to March 31, 2023). However, it also refers to earlier and later dates as necessary. Unless otherwise specified, all data are drawn from consolidated financial statements.

#### **Disclaimer Regarding Forward-Looking Statements**

This report contains forward-looking statements that are based on Advantest's current expectations, estimates and projections. These statements include, among other things, the discussion of Advantest's business strategy, outlook and expectations as to market and business developments, production and capacity plans. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "anticipate," "believe," "estimate," "expect," "intend," "project," "should" and similar expressions. Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause Advantest's actual results, levels of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements.

# Summary



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Group CEO Message

#### A Look Back at FY2022

2022 was a year of sweeping change. Amidst the digital transformation accelerated by COVID-19 measures during the pandemic, customers actively invested in test systems for high-performance smartphone and HPC semiconductors in the first half of the fiscal year. However, when inflation soared worldwide due to the impact of the situation in Ukraine on energy and food prices, Western countries took the lead in hiking interest rates, exacerbating global recessionary concerns. Markets for consumer electronics such as smartphones and personal computers were hit particularly hard, and manufacturers of semiconductors for these final products began to adjust inventories and review their investment plans.

On the other hand, the growing trend toward electrification of automobiles and industrial equipment buoved semiconductor demand from these sectors, which remained firm throughout the fiscal year. As semiconductor applications have become ubiquitous in our lives and industries, the semiconductor market has come to resemble a mosaic of stronger and weaker demand, rather than declining across the board under economic stress. In the semiconductor test system market (hereafter referred to as the tester market), unlike in past adjustment phases, business sentiment varied throughout the fiscal year depending on the application and device type. We leveraged our broad customer base and product portfolio to compensate for the decline in weaker sectors by winning business in stronger sectors, and achieved record-high net sales and net income for the third consecutive year.

#### Our Outlook for FY2023

As of the end of July 2023, the global economy is returning to a post-pandemic normal, but the outlook for the global economy in FY2023 remains uncertain. There is considerable volatility associated with inflation and geopolitical risks, and the semiconductor market as a whole is still in an adjustment phase. In particular, the continuing slump in smartphone shipments, which greatly affect semiconductor demand, is impelling manufacturers of related devices to adjust production and restrain investment. We expect the tester market to shrink from US\$5.2 billion in CY2022 to around US\$4.1-4.6 billion in CY2023. Regarding our own business performance, we expect net sales of ¥480.0 billion in FY2023, a 14.3% year-on-year decline from net sales of ¥560.2 billion in FY2022.

However, I believe the diversification of applications will prevent any major overall decline in the semiconductor market. Expectations for widespread implementations of generative Al are extremely high, and Net Zero policies continue to spur strong demand for semiconductors with excellent power efficiency. Our customers have not slowed down their investments in advanced semiconductors, and I am confident this will eventually generate new tester demand.

Above all, the increasing demand for higher semiconductor functionality and reliability is qualitatively changing the tester market. New architectures and process nodes present numerous technical issues, and customers actively employ test systems to solve these problems and quickly raise yields. More transistors per device means greater test complexity.

Semiconductors that must deliver high performance and be extremely reliable, such as those used in data servers and automobiles, have to be tested multiple times under different conditions, such as different temperatures, so that defects do not go undetected. I believe these trends will contribute to tester market growth that equals or outstrips the growth of the semiconductor market.

The tester market relies heavily on customer investment cycles, so cycles of boom and bust are inevitable to a certain extent. The decline that started in the second half of FY2022 is expected to continue for now, but the market will eventually recover and rebound to a high level in CY2024.

P.12 Advantest's Market Environment

#### Reflections on the Progress of Our 2nd Mid-Term Management Plan

When we announced our second mid-term management plan in May 2021, we set a three-year average (FY2021-2023) sales target of ¥350.0 billion - ¥380.0 billion as a management metric. Since we had just surpassed ¥300.0 billion in sales for the first time, posting sales of ¥312.8 billion in FY2020, this target appeared ambitious at the time. However, our actual sales in FY2021 were ¥416.9 billion, and provisional sales figures for FY2022 exceed ¥500.0 billion. Therefore, in May 2022, we reviewed this metric and raised our target significantly, to a range of ¥480.0 billion - ¥520.0 billion.

Part of the reason for this revision was that semiconductor technology had evolved and spread faster than we expected, and the tester market itself had expanded. But more

	MTP1 Results Avg. of FY2018-20	FY2021	FY2022 ¥560.2B	
Sales	¥290.4B	¥416.9B		
Operating Margin	22.3%	27.5%	29.9%	
Net Income	¥60.1B	¥87.3B	¥130.4B	
ROE	29.1%	30.4%	39.3%	
EPS*	¥77 (¥309)	¥112 (¥450)	¥175 (¥697)	
Tester Market Share (Source: Advantest)	50%	47%	57%	

<sup>\*</sup>Advantest has changed its previously announced values due to a 4-for-1 stock split of shares of common stock, effective October 1, 2023 (values in parentheses are those before the split).

importantly, we capitalized on this market expansion to increase our market share. As semiconductors come to play an ever more important role as social infrastructure, our strategy of developing solutions for a wide range of applications, expanding our customer base, and growing our business is bearing fruit. In addition, the expansion of applications and our successful wooing of new customers has stabilized our performance despite the cyclical nature of the semiconductor test business.

In the future, our business environment will change dramatically, just as it has in the past. Even if the market resumes expanding, I do not by any means take for granted that we will be able to continue growing during the period of our third mid-term management plan, which is scheduled to start in FY2024. Now that semiconductors are positioned as a strategic commodity with a place in economic security strategies, competition may intensify, including emerging players from China and other countries and regions. New

technological innovations may also change the tester market itself. Rather than resting on our laurels as the dominant market player, we must anticipate possible changes in the semiconductor industry as well as society and change ourselves accordingly to achieve growth. We must strengthen our marketing and R&D capabilities, evolve our customer support and production systems, and further improve operational efficiency. In addition to investing in growth, including through M&A, we will also focus on securing and training the needed human capital to support our business, with sustainable growth as our watchword.

P.14	"Grand Design" Mid/Long-Term Management Policy
P.16	Second Mid-Term Management Plan (MTP2)

#### **Toward Sustainable Growth**

"Further enhancement of ESG initiatives" is one of the five strategies set forth in our "Grand Design" mid/long-term management policy. We are executing this strategy by promoting initiatives aimed at business growth and the creation of a sustainable future for humanity. In recognition of these efforts, in 2022 Advantest was selected as a constituent stock of the Dow Jones Sustainability Asia/Pacific Index (DJSI Asia Pacific)<sup>11</sup> index for the first time, and in 2023 the MSCI ESG Ratings<sup>22</sup> upgraded our rating to AA.

- \*1 The Dow Jones Sustainability Indices (DJSI) are composed of companies selected for their excellent sustainability performance on both general and industry-specific criteria.
- \*2 The highly-regarded MSCI ESG Ratings "aim to measure a company's management of financially relevant ESG risks and opportunities," according to MSCI. Through analysis of environmental, social, and governance initiatives, companies are ranked as leaders (AAA, AA), average (A, BBB, BB) or laggards (B, CCC).

Governance is the foundation of business sustainability. In particular, I consider the effectiveness of the Board of Directors to be highly important. By allowing directors with diverse backgrounds to spend time exchanging opinions, the Board can steer management from a broader perspective. We survey our directors about the effectiveness of the Board of Directors every year, and have received positive evaluations of the Board's diversity. In addition to non-Japanese directors, we have also appointed executive officers from various parts of North America, Europe, and Asia. Our global management

Group CEO Message

system enables us to offer tailored support for the globally far-flung semiconductor value chain.

In order for a company to grow sustainably, I believe it is necessary to fully recognize that corporate value is a multifaceted concept. Through our measurement technology, we support the technological evolution of semiconductors and contribute to the safety, security, and comfort of people worldwide. While doing business, we have a duty to meet environmental and social needs by measures such as reducing the environmental impact of our production activities and products, and focusing on work environments and human rights, including at our suppliers. Our employees' awareness of environmental and social issues is increasing year by year. We are also in the process of reducing our Scope 1+2

emissions (CO<sub>2</sub> emissions from our own industrial processes and externally purchased power) by sourcing energy from renewables, and reviewing our product architectures to reduce the environmental impact. We believe that these attitudes and initiatives are essential for us to work together with our suppliers and customers for sustainable growth.

P.37 Further Enhancement of ESG Initiatives

#### Advantest's Culture of INTEGRITY

Given the global reach of our customers, global teamwork is essential for our employees around the world. By clarifying the values that Advantest considers important, and sharing them company-wide, we have unified the aspirations of our global team members and helped them to strengthen their teamwork with colleagues at home and abroad. In addition, we believe employees can justly take pride in the fact that our company's products contribute to the common good. This motivates them and helps them to feel engaged with their work, leading to better results and retention rates.

Our INTEGRITY core values function as a shared mindset for all our employees around the world to work together and grow together with colleagues, customers, and suppliers, and contribute to global sustainability. The word INTEGRITY expresses Advantest's stance in relation to all stakeholders. To further instill INTEGRITY throughout the company, we continue to carry out activities such as workshops for all

#### Innovation is our Lifeblood

We challenge the status quo.

We embrace technologies and entrepreneurship to create superior customer value.

#### Number one is our Aspiration

We earn our leadership position in our business fields every day.

We establish an impeccable standard of excellence.

#### Trust is our Foundation

We are a trusted. collaborative partner.

We have confidence in each other's capabilities and intentions.

#### Empowerment is our Motivation

We are empowered to make decisions with an owner's mentality.

We own Advantest's success.

#### Global is our Reach

We embrace a world of constant change.

We are always ready. Anytime. Anywhere.

#### Respect is our Heart

We respect different cultures, customs, and laws.

We never compromise on our ethical standards.

#### Inclusion and Diversity is our Commitment

We are proud of and appreciate the range of different backgrounds that our talents represent.

We believe that strength can come from differences as well as similarities.

#### Teamwork is our Approach

We work smart and best utilizing our talents across teams and regions to do extraordinary work.

We inspire each other, encourage openness, and recognize team results.



#### Yes is our Attitude

We deliver on results promised to each other.

We recognize that impossible is an opinion, and with imagination, we can change the world.

employees, leadership training, the appointment of INTEGRITY ambassadors, and the INTEGRITY Awards, which recognize teams that have made outstanding contributions. Today, our nine INTEGRITY core values (Innovation, Number One, Trust, Empowerment, Global, Respect, Inclusion and Diversity, Teamwork, Yes) are frequently mentioned in our company activities and are established at the roots of our corporate culture.

The semiconductor industry has been evolving faster and faster in the last few years, and it is difficult to predict what will happen in the future. That is why I believe it is essential for corporate sustainability that every employee should quickly perceive changes in our business environment, and demonstrate teamwork in constant communication with customers, suppliers, and colleagues. Our INTEGRITY core values, such as "Trust" of stakeholders and "Inclusion and diversity" of various viewpoints and abilities, are our compass in this era of rapid change.

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Human Capital/CHO Message

#### The Risks and Opportunities of Al

With generative AI services such as Chat GPT attracting attention around the world, I have been asked many questions about the impact of AI on our business. I would like to close this message with some comments on that topic. Generative AI still has many issues that need to be resolved, such as security and copyright questions, and countries are

no doubt working hard on laws and regulations to address these issues. However, I believe that widespread implementation of this technology is inevitable and is sure to trigger explosive change. One certainty is that generative Al will increase demand for leading-edge semiconductors such as GPUs, CPUs, and high-performance memory devices. This plays to Advantest's strengths, as we hold a superior position in the tester market, and many of our major customers design and manufacture high-performance semiconductors. Considering that Al will likely spread not only to data centers, but also to servers and "edge devices" on the user side, we expect related semiconductor demand to grow rapidly, which should have a significant positive impact on our business performance.

However, I doubt that this will be the only impact of AI on our business. AI will also be introduced into factories. It is possible that all manufacturing processes will be revised with big data and machine learning, including in the semiconductor industry. The data generated and collected by our test systems can also create new value in combination with the data gleaned from manufacturing processes, as it will become possible to identify problems in design and manufacturing processes early on through data analysis, and use these learnings to guide improvements. We have already launched "Advantest Cloud Solutions™," a solution that converts test data into a format that can be used for real-time machine learning. I believe this business will play a role in the future of the semiconductor industry, but it will be a business we operate together with our customers and other partners,

rather than doing it on our own.

In general, big changes entail big risks. However, I believe that we can turn changes into opportunities by taking on new challenges as soon as possible. We will analyze the future of generative Al and consider the opportunities and risks for our company from various angles. It is the role of management to shape an organization that can respond quickly to social changes without being hindered by prior assumptions. This is the key to success in our unpredictable era.



#### Welcome to Advantest

#### **Advantest's Value Proposition**

Advantest is a company that uses electronic measurement technology to address industry issues. We were founded in 1954 as a developer and manufacturer of voltmeters and frequency counters, and grew in step with the Japanese electronics industry. At present our flagship products are test systems for semiconductors. These systems input test signals to semiconductors, and check the response signals to determine whether the semiconductors are good or defective. Our products are used by semiconductor companies around the world for design evaluation, manufacturing process evaluation, and inspection of mass-produced devices. supporting them by resolving issues, and helping them to deliver their products as rapidly as possible.

Semiconductors are responsible for many of the advancements in science and technology in modern times, such as high-performance smartphones, electric vehicles, and most recently, artificial intelligences. Since semiconductors are manufactured at the nanometer scale, they are prone to circuit breakage, short circuits, and variations in voltage and timing. To test dozens or even hundreds of advanced semiconductors simultaneously, Advantest's test systems need to be even more advanced. They contribute to the safety of semiconductors in various products and sectors, thus providing security and comfort to people worldwide.

#### Test in the Semiconductor Value Chain

Semiconductor manufacturing includes hundreds of processes, starting with lithography and etching. The fundamental technologies required are diverse, including applied chemistry, material engineering, and electronic engineering, and it is extremely difficult for a single semiconductor manufacturer to develop and deploy all of them successfully. Hence, production equipment

incorporating the advanced technology and know-how of external suppliers is used in each process.

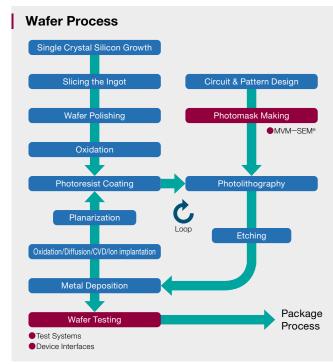
Test systems are mainly used at the end of the wafer production process and in the final inspection process, after packaging. In addition, tests are performed at pivotal points in order to maximize yield and reduce costs. Some state-ofthe-art semiconductor volume production lines include as many as 10 separate tests.

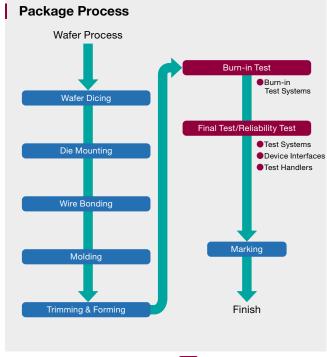
Outside of volume production, test systems are also used for design evaluation and process development evaluation before production begins. Recently, in order to accelerate the introduction of new products to the market, semiconductor companies have increasingly tended to deploy a large number of test systems at these early stages.

Sustainability

Test systems are uniquely positioned to collect test data such as functions and specifications, which reflects many aspects of the manufacturing process and can be analyzed for design and process improvement. In 2020, we launched a new software platform. Advantest Cloud Solutions™, which proposes ways to use data to improve yields and production equipment utilization rates.

#### <Semiconductor Manufacturing Process>





Processes using Advantest's Products

# Advantest's Competitive Environment & Market Position

Semiconductor test system suppliers were once numerous. However, companies that could not invest in R&D that kept them ahead of the technological evolution of semiconductors, or provide localized support to the increasingly globalized semiconductor supply chain, have gradually left the industry. Since the 2010s, Advantest and our largest competitor have dominated the global market between us. Some emerging companies enter the market with the support of major semiconductor companies, while others hang on by specializing in products with relatively mature technology. However, there is a significant gap between them and the top two companies in terms of technological capabilities and market share.

The test system business is affected by the semiconductor volume production investment cycle and the markets for final products such as smartphones and data servers. In the past, our company's performance fluctuated greatly depending on the trends of specific final products and major customers. However, in addition to acquiring a wide range of customers with diverse product portfolios, we have grown our business in design evaluation and process development evaluation, which are not so easily affected by final product markets, and currently enjoy a relatively stable business environment.

#### **Cross-Regional Operations**

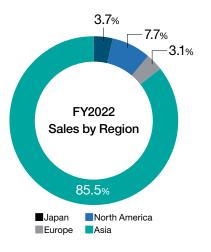
Advantest was founded in Japan, but in recent years, overseas customers have accounted for most of our sales, to the point that just 3.7% of our FY2022 sales were to Japanese customers. One key region is Asia, where there are many foundries that manufacture semiconductors on consignment, and OSATs (Outsourced Assembly and Test companies) that specialize in packaging and testing. Meanwhile, there are many fabless companies in North America that specialize in

semiconductor design and influence test system selection by foundries and OSATs. The importance of North America to our business goes beyond sales figures.

On the other hand, our main R&D locations are in Japan and Germany. In business negotiations in Asia and North America, which account for the majority of our sales, local sales and support personnel work as a team with their Japanese and German colleagues in development and marketing. Similarly, our manufacturing and administration departments support teams with far-flung members. In this way, cross-regional operations are normal for us.

All local employees are unified around our goal of solving customer issues, but differences in culture and customs are natural. We have established the Advantest Way to help employees share our purpose and vision and enhance their teamwork. Our INTEGRITY core values, an element of the Advantest Way, have spread to employees worldwide through workshops and awards.

#### Our "Grand Design" Mid/Long-Term Management Policy Having foreseen that the digital transformation would



significantly change our business environment, in April 2018 we announced our "Grand Design" mid/long-term management policy, which set management goals for the next 10 years. Its premises are that semiconductors play an important role in supporting our data-centric society, and demand for semiconductor test will expand further due to the increasing complexity of semiconductors and high reliability requirements. With these trends in mind, we set a sales target of 400 billion yen by FY2027, which would have required our annual sales to approximately double in a decade.

In fact, it only took three years. After the launch of our Grand Design, the semiconductor market continued on a rapid growth trajectory that analysts have dubbed a "supercycle." In addition, the increasing complexity of semiconductors and the growing demand for quality and reliability have produced even greater growth in the semiconductor test market than we anticipated. We achieved our sales target in FY2021, and sales reached 560.2 billion yen in FY2022. In particular, in our core Semiconductor & Component Test System segment, we have significantly expanded our market share due to the rapid growth of our HPC (High Performance Computing) test business, among other factors, and segment sales increased from 140.9 billion yen in FY2017 to 404.3 billion yen in FY2022. In addition, we have aggressively pursued M&A in test system-adjacent markets such as test sockets and interface boards, expanding our portfolio of solutions.

Our Grand Design premise of future growth in the semiconductor test market due to digitalization has not changed. However, in 2021, we added "further enhancement of ESG initiatives" to the 5 strategies set forth in the Grand Design. We view changes in social and industrial structures as opportunities to make our business sounder and stronger, and our ESG initiatives embody our commitment to sustainable growth.

# **History**

1950s~ 1980s~ 2000s~ 2020s~

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#### Mainframe Computer

- 1954 Takeda Riken Industries founded.
- 1957 TR-124B Electronic Counter for digitally measuring frequency became a hit product.
- 1963 Launched the Digital Multimeter, the first Japanesemade digital voltmeter.
- 1972 Launched the first Japanese-made semiconductor test systems, the T-320/20 and T-320/30.
- 1979 Launched the VLSI test system with a test frequency of 100MHz, boasting the highest performance in the



▲Our original workforce. Founder Ikuo Takeda is second from left in the front row.



▲An engineer works on our first electronic measurement instruments.

#### **Personal Computer**

- 1982 Established a local subsidiary in the United States. Facilities were later established elsewhere around the world
- 1985 The company's name was changed to Advantest Corporation. Obtained the No. 1 share in the semiconductor test equipment market, according to VLSIresearch. (now TechInsights)
- 1993 Launched the T6691, a VLSI test system featuring an industry-best test speed of 500MHz/1GHz
- 1995 250MHz S-DRAM memory test system T5581 launched: become a best-selling product.



▲An American customer takes delivery of our T3340 LSI test system in 1982



▲Our T5581 high-speed memory test system

#### **Mobile Phone**

- 2000 The Nikkei 225 selects Advantest as one of the 225 stocks on which the Nikkei Average is calculated.
- 2003 Acquired Japan Engineering Co., Ltd. Launches the T2000, an open architecture SoC test system.
- 2008 Acquired Credence Systems GmbH.
- 2011 Acquired Verigy, a major semiconductor test equipment company 2013 Acquired W2BI.COM
- 2018 Announced Grand Design and first mid-term management plan
- 2019 Acquired the system level test business of Astronics, Corp. (USA)



fellow semiconductor test equipment supplier Veriav architecture test system

#### 2020 Acquired Essai Inc. (USA) Business alliance with PDF Solutions, Inc. (USA) Launched V93000 EXA Scale™

Big Data/Al

- 2021 Formulation of ESG Action Plan Announced second Mid-Term Management Plan Acquired R&D Altanova, Inc. (USA)
- 2022 Acquired CREA S.r.l. (Italy)
- 2023 Acquired Shin Puu Technology Co., Ltd. (Taiwan)



Our system-level test system R&D and production facility in the US

▲Our new V93000 EXA Scale™ test platform

#### Sales of the Company

1954 1960 1970 1980 1990 2000 2010 2020 2022

▲Our T2000 open

Starting with electronic measurement technology, Advantest grows together with the Japanese electronics industry

measurement technologies. Overcoming a management crisis

and other difficulties, we succeeded in developing semiconductor test systems with world-class performance.

We were founded as a developer and manufacturer of single-function electronic measurement instruments such as voltmeters and frequency counters. Following our success in this field, we embarked on a fruitful strategy of narrowing down target markets, differentiating our products with advanced technology, and winning market share. Our business expanded in line with the growth of the Japanese electronics industry. At the end of the 1960s, we were one of the first to foresee the historical opportunities soon to be created by the semiconductor industry, and staked our fortune on the development of test systems that would utilize our electronic

Advantest's business expands massively together with the semiconductor industry

In this era, the semiconductor market expanded massively due to the spread of personal computers and the invention of the internet. Our semiconductor test systems, which combine state-of-the-art measurement technology with volume production capabilities, supported the evolution and development of semiconductor devices. In 1985, we became the dominant player in the global semiconductor tester market. Test systems were now the core business of our company.

Advantest stays abreast of the evolution of the semiconductor value chain

After the turn of the century, smartphones took over from PCs as the main driver of semiconductor demand, and the global division of labor in semiconductor design and manufacturing progressed. Amid increasing market demands for cheaper, more efficient test, we worked to stabilize our management foundation, and implemented a series of forward-looking measures such as M&A of companies outside Japan. With our acquisition of Verigy in 2011, we staked the company's fortunes on a daring move for the second time in our history. It has paid off. The addition of Verigy's customer base and global operation know-how has supercharged our growth in the years since.

Advantest is expanding our business by leveraging neasurement technology, while promoting ESG for sustainability

It is already possible to discern that the spread of AI and 5G will bring about an explosion in the amount of data processed around the world, propelling a new phase of evolution in the semiconductor market. Semiconductors, so essential to our data-driven society, are gaining in sophistication, complexity, and capacity, and need to be more reliable than ever before. As the digital transformation advances and the semiconductor value chain further evolves and expands, we will continue to create new customer value, including expansion of our business into system-level testing and data analytics.

#### Advantest's Market Environment

The digital transformation of society across the board is driving growth and innovation in the semiconductor industry, whose products make it possible. The evolution of semiconductors has increased the role of semiconductor test, leading to further growth of the test system market.

#### **Market Overview**

Although some uncertainty remains in the first half of FY2023, we believe the semiconductor market will grow steadily over the medium to long term.

At present, semiconductor manufacturers are expected to continue their inventory and production adjustments for the time being due to global recessionary risks exacerbated by rising inflation and higher interest rates, as well as other factors. We expect the semiconductor test equipment to contract year-on-year in 2023. In addition, economic security concerns have recently highlighted the importance of semiconductors, and our business environment is becoming increasingly uncertain due to the tightening of restrictions on the export of semiconductor production equipment to China by the United States and its allies. The direct impact on our FY2023 earnings is currently expected to be minor, but we will continue to closely monitor the situation.

On the other hand, these developments have led more countries to position the semiconductor industry as strategically important, and governments are accelerating their moves to strengthen the competitiveness of domestic semiconductor manufacturing. The emergence of new Al-based applications has simultaneously accelerated the digital transformation. At the same time, the growing chorus of support for Net Zero policies has increased the importance of semiconductor technology as a means to improve energy efficiency. Our semiconductor manufacturer customers continue to proactively develop next-generation devices. entailing further miniaturization. Overall, as semiconductors become more sophisticated and complex, demand for semiconductor test equipment is expected to grow at a pace that matches or exceeds that of the semiconductor market.

#### **New Demand Trends**

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#### The Data Explosion and Semiconductors as Social Infrastructure

The amount of data processed around the world continues to increase day by day, due to the digitization of everything and the increasing volumes of information flowing between electronic devices and servers connected to networks. Information generated by individuals, such as information about where we are and what we view and consume, is accumulated as big data and utilized for new services and problem solving. In addition, M2M (Machine to Machine) technologies, which exchange information without human intervention, such as automatic driving and remote equipment management systems, are spurring what may be called a "data explosion."

In this data-driven environment, semiconductors play an important role in processing, storing, and communicating large amounts of data fast and efficiently. Semiconductors are now a ubiquitous part of our social infrastructure, and we anticipate that demand for not only better performance but also higher quality and reliability will continue to rise.

#### **Expansion of Demand for Al-Related Devices**

As Al (artificial intelligence) is deployed in more and more areas of business and life, the competition to develop dedicated semiconductors for Al applications is accelerating.

The machine learning approach used by generative Al consists of two processes, "training" and "inference." Although generic semiconductors can perform these processes, dedicated semiconductors enable machine learning at higher speeds. In particular, the semiconductors used for training on the server side require massive computing power to process

large amounts of data. The mainstream practice at present is to use GPUs for this process. GPUs were originally built for image processing, but they are also used in Al because they are good at parallel processing, that is, simultaneously performing a huge number of calculations at high speed. On the other hand, semiconductors used for inference, not only on the server side but also in "edge devices" such as cars and surveillance cameras, generally do not require the same amounts of computing power. Low latency and low power consumption are the desired characteristics of these devices. As generative Al attracts more public attention, the momentum for developing Al semiconductors is increasing, and major North American tech companies are embarking on development of these devices. The growth of generative Al applications is also expected to fuel data center demand. The HPC (High Performance Computing) devices used in data centers, which can process large-scale calculations at high speed, need to be tested more thoroughly and at greater length than other devices. The increase in demand for these devices is expected to significantly boost the test system market.

#### Competition in Leading-Edge Semiconductor **Development Boosts Test Demand**

Performance is a key differentiator for suppliers of leading-edge semiconductors such as the AI semiconductors mentioned above and processors for smartphones. For competitive advantage, they must develop products, ramp up volume production processes, and secure a market as quickly as possible. However, it is not easy to ensure the design quality and manufacturing yield of semiconductors built with advanced nanoscale technology. Our test solutions play a major role in helping customers to get their designs to market. At the design stage of advanced semiconductors, test systems that support new technologies are used to verify semiconductors and help improve quality. Introducing more test systems at this stage makes it possible to shorten development times and, in turn, reduce Time to Market, so companies can introduce new products ahead of their

#### Advantest's Market Environment

competitors. Again, when ramping production of new devices, the introduction of multiple new test systems can quickly identify defects, thereby raising yields at an early stage, with the goal of reducing Time to Volume. Semiconductors for applications that require high quality and reliability, such as servers and automobiles, are thoroughly tested by many test systems in the early stages of process development, with the goal of improving reliability and thereby reducing Time to Quality. However, as a result of recent advances in the complexity and capacity of advanced semiconductors, defects sometimes occur when the device is installed in the final product, even though conventional test of the device itself identified no defects. To avoid these situations, companies are increasingly turning to system-level test, which duplicates the environment in which the device will have to operate when installed in the final product. In this way, the fiercely competitive semiconductor market environment encourages the early development and market introduction of new semiconductors, boosting test demand. All these trends, such as the evolution of semiconductor performance due to the digital transformation, the increasing demand for reliability, and the expansion of applications, have brought new technical challenges to design and mass production, further accelerating the expansion of test demand.

#### Semiconductors Play a Key Role in Fighting Climate Change

Semiconductors play an important role not only in the "data explosion" and generative AI, but also in combating climate change. Smaller, higher-performance semiconductors make a great contribution to energy-efficient final products. For example, data centers around the world have seen dramatic increases in computing power and data capacity over the past few years, and the growth rate of internet traffic has increased significantly, but at the same time the growth rate of electricity consumption has been restrained by gains in semiconductor performance that make it possible to process more data with less power. In addition, the power semiconductors used in electric vehicles (EVs) and renewables—sectors whose fast growth is driving demand for these devices higher—contribute to the reduction of  $\mathrm{CO}_2$  emissions by efficiently controlling electric power. Both in Japan and overseas, there have also

#### Competition in the Semiconductor Market Fuels Investment in Test



Semiconductor Value Chain

been recent moves to increase production of power semiconductors using silicon carbide (SiC), a material that can further improve power-saving functionality.

Advantest believes that the risks posed by climate change to society and the economy must be taken seriously, and that semiconductors are a key technology for addressing these risks. The technological evolution of semiconductors and the expansion of the market for power semiconductors will generate new demand for test and thus create opportunities for business expansion.

#### **Sustainability Highlight**

#### **Development of Green Products**

Although test systems contribute to semiconductor energy efficiency, they still consume power and burden the environment. Against the backdrop of the world's accelerating transition to Net Zero, there is a growing movement among major semiconductor manufacturers to reduce CO<sub>2</sub> emissions throughout the semiconductor supply chain. In addition to performance and economy, reduced environmental impact is becoming a important reason why customers choose

Advantest's test systems.

For more than 20 years, we have set voluntary standards for energy saving, resource saving, design for recycling, elimination of hazardous substances, etc., and have been working on the development of green products with low environmental impact. We aim to grow sustainably, together with the entire world, through CO<sub>2</sub> reduction across the semiconductor supply chain.

#### **Securing and Training Future Semiconductor Test Engineers**

As the semiconductor market is expected to continue expanding in the medium to long term, competition for human capital in the industry is becoming more and more intense. Securing and training human capital to support the evolution of semiconductors is an urgent task for us.

We participate in human capital development through measures such as sponsoring university courses. We also provide new employees with training programs that enhance both individual skills and teamwork. By supporting our employees' motivation to grow in their careers, we contribute both to the development of the semiconductor value chain and to the common good.

In FY2018, Advantest formulated a 10-year mid/long-term management policy, our "Grand Design," which defines the commitments and strategies needed for Advantest to continue to fulfill its corporate purpose and mission of "enabling leading-edge technologies" At the same time, we articulated our corporate vision as "adding customer value in an evolving semiconductor value chain." Since then, we have been working to grow corporate value under this policy.

#### Grand Design (10 Years) (FY2018-2027) Overview & Where We Are Now

#### **Background to Formulation of the Grand Design**

In the past, the semiconductor test equipment market was subject to wide fluctuations in demand due to changes in semiconductor production volumes and cycles of technological evolution influenced by trends in final products such as personal computers. However, due to structural demand changes, such as the ongoing digital transformation, data explosion, and expansion of semiconductor applications, by 2018 the semiconductor test equipment market had shifted onto a more stable growth trajectory than in the past.

In response to these changes, as Advantest implemented M&A with companies outside Japan and expanded our global business base in step with the growth of the global semiconductor market, our percentage of overseas sales has consistently exceeded 90% since the mid-2010s. At the same time, we have transformed into a diverse international organization with a diverse talent pool. Amidst these internal and external structural changes, we established our Grand Design and Vision as common management goals for employees around the world, to help them work together to create customer value and improve corporate value.

In FY2021, three years after the formulation of our Grand Design and the first mid-term management plan (FY2021-FY2023)(MTP1), we updated the Grand Design to

reflect progress made to date and changes in the company's external environment. At the same time, we formulated the second three-year mid-term plan, and the entire company is working together to further ensure the realization of our Grand

We originally set annual sales of ¥300 billion to ¥400 billion as the ultimate goal of the Grand Design, and then in FY2021, revised the Long-Term Management Goal to "the early achievement of annual sales of ¥400 billion" thanks to favorable business performance spurred by the progress of digital revolution and market share expansion. However, we achieved the goal in FY2021, ahead of the originally intended FY2027, amid the sustained expansion of the semiconductor tester market, etc.

Changes in the business environment and society which have provided us with a lot of growth opportunities since the time of the development of the Grand Design are expected to continue, such as the expansion in demand for semiconductors in the mid/long-term. We will leverage the early achievement of our sales target to promote various growth strategies, aiming to realize our vision and further improve corporate value.

#### Corporate Vision: Adding Customer Value in an **Evolving Semiconductor Value Chain**

We will expand our business domains beyond the development and sales of semiconductor volume production test systems to also include adjacent markets such as semiconductor design and evaluation processes as well as product/system- level test processes which are performed after semiconductor volume production processes, with the aim of expanding and growing corporate value.

The chart in the next page shows the progress, as of the first half of FY2023, of our efforts to reinforce and grow our business domains, starting from our core businesses, with the aim of realizing our mid/long-term vision.

Following the acquisition of the system level test (SLT) business of the US company Astronics Corporation in FY2018, we strengthened our system level test business and related recurring businesses with the acquisition of two more US companies, Essai, Inc. and R&D Altanova, Inc., and Taiwan-based Shin Puu Technology Co., Ltd. In addition, we have recently complemented our organic efforts to reinforce our core businesses with the acquisition of Italian company CREA S.r.l. in preparation for future growth in the test market for high-power analog ICs such as SiC/GaN devices, which contribute to improved energy efficiency. Apart from these efforts to reinforce our hardware business, we are also building a solution platform called "Advantest Cloud Solutions™" for cloud services and data analytics.

Supported by broad-based demand drivers such as the ongoing digital transformation and Net Zero policies, the semiconductor market is expected to grow over the mid/ long-term despite short-term demand fluctuations. In addition,

Grand Design" Mid/Long-Term Management Policy

increases in semiconductor complexity and integration, which have driven the expansion of the semiconductor test system market in recent years, are expected to actively advance in the future. Even more recently, advances in AI and its use in automation, are underway. Against this backdrop, customers hold ever higher expectations for Advantest to deliver total test solutions that cover the entire semiconductor value chain. Based on these mid/long-term industry trends, we will continue to reinforce our core businesses and expand our business domains.

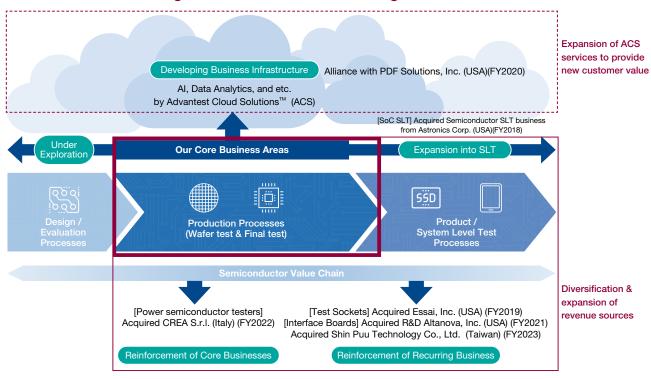
At the same time, in keeping with the ROIC-based business evaluation system that was introduced when we formulated our Grand Design, we will continue to review our business and product portfolios from the perspectives of capital efficiency, mid/long-term business earnings outlook, and the "best owner" principle.

#### **Commitments and Strategies**

In order to achieve our corporate vision, our Grand Design sets forth 6 commitments supported by 5 strategies. Above all, **6**, the further enhancement of ESG initiatives, will help us to strengthen our ability to respond to risks and opportunities and strengthen our resilience amidst high uncertainty and rapidly changing factors such as the COVID-19 pandemic and economic security trends. We added this fifth strategy in FY2021 based on a recognition that the enhancement of our ESG initiatives will lead us to a better future.

We have also positioned these five long-term strategies at the core of our successive three-year mid-term management plans. MTP1 was successfully completed with financial results and market share growth that exceeded initial expectations. Currently, we are working on executing our second mid-term management plan (FY2021-2023), which started in FY2021, aiming to make further strides toward our Grand Design goals.

#### Vision Statement: Adding Customer Value in an Evolving Semiconductor Value Chain



#### Commitments

- Be the No.1 provider of test & measurement solutions
- Partner with leading-edge customers
- B Develop leading-edge technologies
- 4 Attract and retain the best talent in the industry
- **5** Learning organization
- 6 Improve financial KPI and increase corporate value

#### **Strategies**

- Reinforce Core Businesses, Invest Strategically
- 2 Seek Operational Excellence
- 3 Explore Value to Reach a Higher Level
- 4 Pioneer New Business Fields
- 5 Enhance ESG Initiatives

Aiming to further solidify our route to achievement of our Grand Design goals, MTP2 promotes initiatives to reinforce businesses for further growth, while expanding both growth investments and shareholder returns to improve corporate value.

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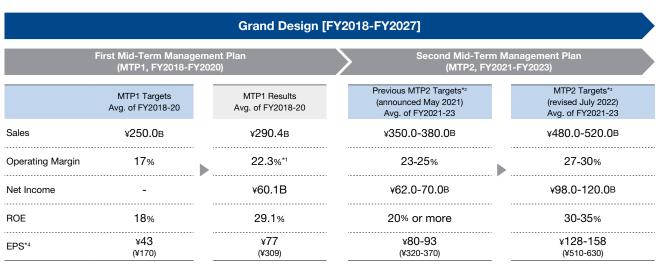
#### MTP2: A Plan Based on the Latest Business Environment Trends (May 2021)

At the end of our first mid-term management plan (MTP1, FY2018-2020), we reviewed the social megatrends and semiconductor market outlook that inform our strategy. We recognized that the semiconductor market, which is the source of Advantest's growth, is expected to continue expanding in line with the progress of the digital transformation, suggesting that our business environment would continue to be favorable for the time being. Based on this medium-term business environment forecast, in May 2021, we formulated our second mid-term management plan (MTP2, FY2021- 2023) to further progress the company toward achievement of our Grand Design goals, and launched initiatives aimed at accelerating our progress. Under MTP2, while following the course of MTP1, which ended successfully, we are aggressively promoting growth measures that will contribute to business expansion in our core business and related markets from a mid/long-term perspective, aiming for sustainable growth whilst strengthening our business foundations.

# Outline of Second Mid-Term Management Plan (MTP2, FY2021-FY2023)

#### **Targeted management metrics**

Under MTP2, Advantest will promote efforts to strengthen its business for further growth, expand growth investment as well as shareholder returns, and strive to increase corporate value.



<sup>\*1</sup> In the MTP1 period, Advantest recorded a one-off profit of approximately ¥12 billion.

Given this framework, the management metrics that are emphasized in MTP2 are sales, operating margin, net income, return on equity attributable to owners of the parent (ROE), and earnings per share (EPS). Advantest has been endeavoring to grow all these numbers. In order to evaluate the progress of the plan from a mid/long-term perspective, the Company uses three-year averages so as to level the impact of single-year performance fluctuations.

Regarding the management metrics of MTP2, in May 2021, the Company initially announced the outlook of financial metrics calculated based on the medium-term forecast of

market trends. However, in FY2021 as the first year of MTP2, the markets of semiconductors and related products remained brisk beyond the assumption in the development of MTP2, and our business expansion measures also evolved steadily. In July 2022, the Company revised the targeted management metrics of MTP2 as follows, taking into account the solid progress of the plan; the comprehensive consideration of the forecast of our business environment until FY2023 including a stronger downward resilience in the semiconductor test equipment market driven by the diversification of semiconductor applications, higher difficulty levels for testing

<sup>\*2</sup> Exchange rate assumptions at the announcement in May 2021 were 1 USD = 105 JPY and 1 Euro = 130 JPY.

<sup>\*3</sup> Exchange rate assumptions at the revision in July 2022 for results forecast from the second quarter to the fourth quarter of FY2022 and for FY2023 were 1 USD = 130 JPY and 1 Euro = 140 JPY. (Actual exchange rates for FY2021 were 1 USD = 124 JPY and 1 Euro = 130 JPY. Actual exchange rates for the first quarter of FY2022 were 1 USD = 124 JPY and 1 Euro = 134 JPY.)

<sup>\*4</sup> Advantest has changed its previously announced values due to a 4-for-1 stock split of shares of common stock, effective October 1, 2023 (values in parentheses are those before the split).

high-end semiconductors, and strong motivation of major chip makers to invest in advanced technologies, and based on the assumption that the downturn of global economy since 2022 will remain within the range of normal economic slowdown.

#### **Growth Investments & Shareholder Returns Outlook**

Advantest's capital allocation policy aims to use the cumulative operating cash flow of ¥280 - 360 billion expected during the MTP2 period as a primary source of funds, and allocate it appropriately to growth investments and shareholder returns after periodic reviews of cash on hand levels. Regarding resource allocation for growth investment, we will increase capital investment related to R&D and production, in response to expectations for long-term semiconductor market expansion and further semiconductor performance gains. The company currently expects to spend a cumulative total of ¥70 billion on capital investments and ¥100 billion on strategic investments such as M&A over the MTP2 period.

Regarding shareholder returns, Advantest will maintain its existing returns policy, assuming that its business environment remains stable during the MTP2 period. Specifically, Advantest will maintain stable dividends with a minimum semi-annual dividend of ¥12.5 per share and a minimum annual dividend of ¥25 per share<sup>(1)</sup>, while simultaneously aiming for a total annual return ratio<sup>(2)</sup> of 50% or more. Advantest will also seek to enhance shareholder returns and improve capital efficiency through dividends and share repurchases.

#### **MTP2 Growth Strategies and Progress Update**

Advantest views MTP2 as three years during which it will strengthen the foundation for the greater growth of Advantest in

	Targets of MTP2 Avg. of FY2021-2023		FY2021 Results	FY2022 Results	FY2021-2022 Average <sup>*1</sup>
Sales	¥480.0-520.0 <sub>B</sub>		¥ <b>416.9</b> <sub>B</sub>	¥560.2 <sub>B</sub>	¥ <b>488.5</b> в
Operating Margin	27-30%		27.5%	29.9%	28.7%
Net Income	¥98.0-120.0 <sub>8</sub>	<b>&gt;</b>	¥ <b>87.3</b> в	¥130.4в	¥108.9 <sub>B</sub>
ROE	30-35%		30.4%	39.3%	34.9%
EPS*2	¥128-158 (¥510-630)		¥ <b>112</b> (¥450)	¥175 (¥697)	¥ <b>143</b> (¥573)

<sup>\*1</sup> Exchange rate assumptions for the FY2021-FY2022 (average actual results): Actual exchange rates for FY2021 were 1 USD = 112 JPY and 1 Euro = 130 JPY; Actual exchange rates for FY2022 were 1 USD = 134 JPY and 1 Euro = 140 JPY.

#### Growth Investment

	FY2021-2023 Investment Targets	FY2021 Results	FY2022 Results	FY2021-2022 Cumulative Results
Strategic Investments e.g. M&A	¥100.0 <sub>B</sub>	¥ <b>29.0</b> в	¥ <b>3.5</b> в	¥ <b>32.5</b> <sub>B</sub>
Capital Expenditure	¥ <b>70.0</b> в	¥ <b>18.0</b> в	¥ <b>25.0</b> в	<b>¥43.1</b> в

#### Shareholder Returns

	FY2021-2023 (estimate)	FY2021 Results	FY2022 Results	FY2021-2022 Cumulative Results
Shareholder Returns (Dividend + Share buybacks)	¥ <b>210.0</b> B or more	¥ <b>93.0</b> <sub>B</sub>	¥ <b>75.0</b> <sub>B</sub>	¥168.1в

the semiconductor market, which is expected to expand further in the mid/long-term. In the period from FY2021 to FY2022, Advantest steadily implemented the following initiatives, along with the five strategic issues raised in the Grand Design from a mid/long-term perspective.

Financially, amidst growing recessionary risks, our business environment is becoming increasingly uncertain, but in terms of progress in the second year of MTP2, we achieved record-high results. Continuing on from FY2021, in addition to capturing higher test demand for smartphone, HPC, and

high-performance memory devices, where we have a competitive advantage, we steadily pursued a strategy of expanding our customer base in the automotive, industrial, and consumer sectors, which paid off, along with our product strategy, in the form of higher sales to these sectors.

#### **Future Focus of MTP2**

Key Measures for FY2023 are as follows.

•We will strive to create added customer value through the development of leading-edge test technologies, including

<sup>\*1</sup> Due to a 4-for-1 stock split of shares of common stock, effective October 1, 2023, the Company has changed its dividend from ¥50 per share for a semiannual and ¥100 per share for annual.

<sup>\*2</sup> Total return ratio: (Dividend + share repurchase) / consolidated net income

<sup>\*2</sup> Advantest has changed its previously announced values due to a 4-for-1 stock split of shares of common stock, effective October 1, 2023 (values in parentheses are those before the split).

Second Mid-Term Management Plan (MTP2)

further expansion of our test solutions for future growth markets such as AI and power semiconductors, and reinforcement of our data analytics business foundation.

- We will continue to make necessary growth investments in new projects targeting future business expansion.
- In addition, we will seek operational excellence by, among other things, refining our supply chain management for better responsiveness to demand fluctuations, and actively utilizing DX to improve company-wide productivity.
- We have launched a mid/long-term project to support the sustainable growth of Advantest by introducing ESG initiatives, including investment in our human capital by promoting the enhancement of individual employees' skills and the deployment of a global personnel system.

In FY2023, as the final year of MTP2, Advantest will work toward the achievement of MTP2 targets, positioning FY2023 as the year to fortify our business foundations and make them more resilient.

#### **CxO List**

Group CEO (Chief Executive Officer)	Yoshiaki Yoshida
Group COO (Chief Operating Officer)	Douglas Lefever
Group Co-COO (Co-Chief Operating Officer)	Koichi Tsukui
CPO (Chief Production Officer)	Soichi Tsukakoshi
CHO (Chief Human Capital Officer) CCO (Chief Compliance Officer)	Keith Hardwick
CFO (Chief Financial Officer) CSO (Chief Strategy Officer)	Yasuo Mihashi
CTO (Chief Technology Officer)	Juergen Serrer
CCRO (Chief Customer Relations Officer)	Makoto Nakahara
CDO (Chief Digital Officer) CIO (Chief Information Technology Officer)	Richard Junger

#### **Strategies**

Reinforce Core Businesses, Invest Strategically

Seek Operational Excellence

Explore Value to Reach a Higher Level

4 Pioneer New Business Fields

5 Enhance ESG Initiatives

#### **Progress**

We continued to expand each of our test solutions, starting with the V93000 EXA Scale in FY21. In FY22, we further strengthened our growth foundation with the launch of the inteXcell, an innovative new memory test cell, and the acquisition of Italian company CREA, a major power semiconductor test equipment manufacturer.

We further enhanced our responsiveness to customer needs with ongoing sales / support hiring.

The TechInsights Customer Satisfaction Survey named Advantest the SPE industry leader for the fourth consecutive year.

Launched global business operation initiatives to enhance efficiency and aim for a business process reform.

We made progress in developing the Al/HPC, smartphone, and automotive markets for our SLT products. We strengthened our test interface business by acquiring US company R&D Altanova in FY21, and Taiwanese company Shin Puu in FY23 1Q.

We continued to enhance the foundational services offered by Advantest Cloud Solutions™ (ACS).

We established a system for promoting new businesses, including medical equipment such as fluorescence detection systems.

Introduced a CxO system to clarify management accountability in order to reinforce a global HQ management system further.

We formulated and promoted an ESG Action Plan, which serves as the framework for our ESG initiatives. It helped us to expand our social contributions through our business and improve our ESG external evaluations in FY22.

#### Key Measures for FY23

We will strive to achieve our MTP2 targets and build a stronger and more resilient management foundation by:

Creating added customer value through leading-edge test technology R&D

Expanding our test solutions to meet the needs of leading customers in high-growth sectors such as Al and power semiconductors Continuing to execute growth investment for our future business expansion

Further strengthening our data analytics business foundation through close collaborations with partners

Seeking operational excellence

Refining our supply chain management to improve responsiveness to demand fluctuations

Actively utilizing DX to improve operational efficiency company-wide (Reinforce global business operation initiatives activities to enhance efficiency)

• Implementing proactive ESG initiatives, including the investment in our human capital from a mid/long-term perspective

# Risk Management

Each of Advantest's locations around the world has diverse functions, so in order to carry out effective risk management, each unit (individual division, business unit, and six of our overseas locations) operates autonomous risk management in normal times. We also have a top-down risk response structure to be activated in the event of an emergency.

#### Our Basic Risk Management Philosophy

It is essential to identify present and future risks, prepare for them, and take appropriate countermeasures in order to seize business opportunities and tackle challenges amidst the upheavals affecting our business environment, such as the data explosion, the digital revolution which is further accelerated by the rise of new applications that leverage Al, and ever-faster social change. By linking management strategy with risk management, we aim to comprehensively identify existing and anticipated risks. Each unit identifies risks from a bird's-eye view, defining risks as factors that may hinder the achievement of management strategies, and takes appropriate countermeasures according to the magnitude of the risks.

In addition, we have prioritized the creation of a system that can promptly respond to these risks if and when they materialize. Each unit strives to coordinate with the so-called second line (i.e. administration group) and third line (internal audit division) of defense so as to be fully prepared to respond to risks.

Thus, autonomous risk management by each unit, combined with management oversight, forms the basis of our risk management system.

#### **Risk Management Structure**

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#### 1. Organization

Under the risk management policy set by the Internal Control Committee, each unit manages its own risks while the Internal Control Committee supervises and evaluates the situation and provides feedback.

Compliance-related risks are tracked by the Chief Compliance Officer (CCO). In addition, certain types of risk information are reported directly to the Board of Directors and the Executive Management Committee.

A Risk Management Group, headed by the President, has also been set up to act promptly in the event of an emergency.

#### 2. Process

Each unit incorporates the management plan formulated by the Board of Directors and the Management Committee into its own priority measures.

The Internal Control Committee defines the factors (risks) that may hinder the achievement of these priority measures, and requests individual units to identify risks and report on their risk responses. In this manner, the Internal Control Committee supports and reviews the risk analyses of individual units and promotes information sharing between units from a

company-wide perspective. Each unit reports its risk management status to the Internal Control Committee twice a year. The Internal Control Committee then checks the risk management status of individual units and provides feedback. The Secretariat of the Internal Control Committee also supports each unit in various manners as appropriate, such as providing proposals for risk analysis and countermeasures, and providing necessary information.

Risks regarding compliance-related risks are tracked by the CCO. The CCO then reports regularly to the Board of Directors and the Executive Management Committee. In the event of a compliance-related incident, the CCO promptly instructs the relevant unit to take actions, and reports the status of the response to the Board of Directors and the Executive Management Committee. Depending on the nature of the risk, risk information may be reported directly to the Board of Directors or the Executive Management Committee. The Board of Directors or the Executive Management Committee handles risks at the corporate level by making timely decisions and giving instructions to related units.

In the event of an emergency, quicker response is possible under the direction of the Risk Management Group.

#### **Key Risks and Countermeasures**

In FY2022, approximately 350 risks were identified by divisions, business units, and overseas locations. Among them, major risks were then organized by materiality.

#### **Our Definition of Materiality**

Product strength, technical strength, customer base, human resources, financial base, and risk management are only a few of the many important management topics we must tackle. However, the achievement of our Grand Design goals is our immediate priority, and for that purpose, we must thoroughly refine and execute the strategies set forth in Second Mid-Term Management Plan(MTP2). With this in mind, we decided to make our materiality items the five strategies of our Grand Design, themselves. We decided that it would be most practical to clarify and tackle specific issues at each of strategy execution level after having broken our key strategies down further.

#### Materiality Items

- 1 Reinforce Core Business, Invest Strategically
- 2 Seek Operational Excellence
- 3 Explore Value to Reach a Higher Level
- 4 Pioneer New Business Fields
- **5** Enhance ESG Initiatives

	Key risks	Materiality addressed	Priority measures	Executive in charge
1	Significant demand fluctuations in the semiconductor industry	02	Expansion of our peripherals business     Outsourced production, diversification of suppliers     Strengthen services and other businesses, including recurring businesses and new businesses     Collect accurate information by strengthening communication with customers and overseas locations	CSO
2	Market share losses due to failure to deliver new products in a timely manner as a result of delays in development and design, failure to achieve performance targets	008	Strengthen relationships with leading customers, collect information     Consider lean ways to develop our products by thorough analysis during the early phases of development and design reviews at each phase     New product research using data analysis	сто
3	Market share losses due to failure to procure parts and deliver products in a timely manner	00	Establish a system that does not rely excessively on specific suppliers, such as selection of alternative parts and use of standardized products     Constant assessment and review of suppliers	CPO
4	Intense competition may impact market share	0	Understand customer needs     Provide unique functions and high value-added solutions	CCRO
5	Consequences of significant damage to the company's or our suppliers' major facilities	000	Formulation of BCP plan, obtain punctual information     Confirm BCP status of suppliers     Diversification of production bases and external suppliers	CPO CCO
6	Potential lack of highly specialized human resources	<b>285</b>	Coordinate and replenish human resources between divisions     Formulate a mid- to long-term hiring plan, improving our working environment, increase engagement, providing opportunities to improve skills through education and training programs     Pursue automation and training multi-skilled engineers	СНО
7	Impact of global economic and political trends on global business development	2	Punctually collect risk information Strengthen relationships with customers and suppliers  Establish new shipping processes and alternative supply sources to continue to make our procurement routes and production bases more flexible Establish basic procurement policy, encourage suppliers to understand human rights and occupational safety	CCO CSO CPO
8	Significant remedial costs may be incurred due to stricter environmental laws and regulations	2	Monitor trends in environmental laws and regulations     Consider alternative technologies	CSO CTO
9	Impact on corporate value due to delays in developing new business areas	34	Continual seeking of new businesses     Monitor ongoing projects and conducting regular reviews	Group CEO
10	Risks associated with violation of laws and company rules	6	Promptly obtain information on revisions to laws and regulations  Appropriately set up and monitor internal processes  Caucate and train our employees  Strengthen recovery system to be implemented in the event of an incident	cco

\*CCO : Chief Compliance Officer CCRO : Chief Customer Relations Officer CHO : Chief Human Capital Officer 

CTO: Chief Technology Officer

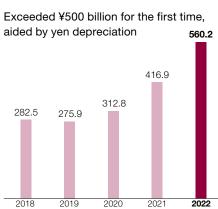
# Consolidated Financial and Non-Financial Highlights

(Each fiscal year starts on April 1st)

#### **Financial Highlights**

#### Sales

(Billion yen)

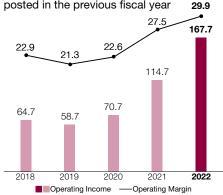


Sales

#### Operating Income / Operating Margin (Billion yen /%)

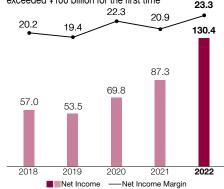
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A 46% increase from the record high posted in the previous fiscal year



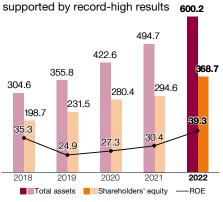
#### Net Income / Net Income Margin (Billion yen /%)

Set a new record high for the third straight year, and exceeded ¥100 billion for the first time 23.3



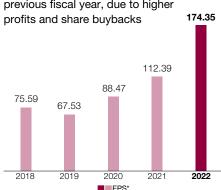
#### Total Assets / Shareholders' Equity / ROE (Billion yen /%)

Came within touching distance of 40%,



#### **EPS** (Yen)

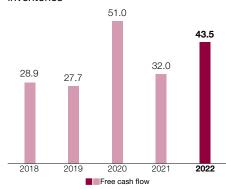
Significantly higher than the previous fiscal year, due to higher



#### \*Advantest has issued a 4-for-1 stock split of common stock, effective October 1, 2023. The above EPS figures are based on the assumption that the stock split had been issued at the beginning of fiscal 2018.

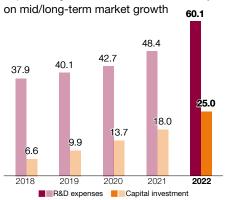
#### Free cash flow (Billion yen)

Grew less than profits, amid higher inventories



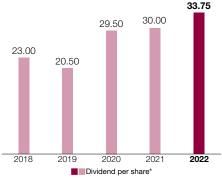
#### R&D expenses / capital expenditure (Billion yen)

Expanded growth investments with an eye



#### Dividend per share (Yen)

Continued to increase dividends while maintaining a stable dividend policy



\*Advantest has issued a 4-for-1 stock split of common stock, effective October 1, 2023. The above dividend per share figures are based on the assumption that the stock split had been issued at the beginning of fiscal 2018.

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Consolidated Financial and Non-Financial Highlights

#### Non-financial highlights

#### Number of employees\* / Number of SE / AE employees

(Number)

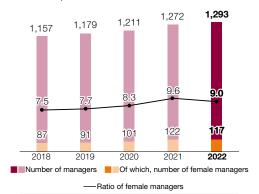
We actively expanded our workforce in line with the growth of our business, and achieved a notable increase 7,117 in SE/AE headcount.



#### Number of managers / Ratio of female managers

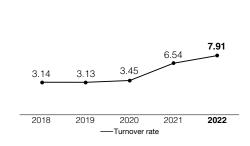
(Number / %)

The percentage of female managers has ceased to increase. We will focus on improving our workplace environments.



#### Turnover rate

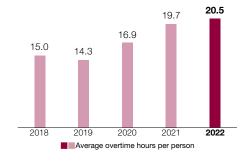
Our turnover rate rose because we acquired a company through M&A whose manufacturing division has always had a high turnover rate.



#### Average overtime hours per person (Japan, China, South Korea)

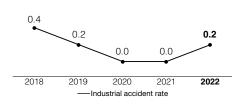
(Hours / Month)

Overtime stayed high due to increased production, tight delivery deadlines, etc.



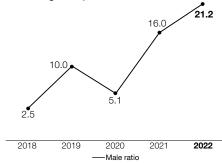
#### Industrial accident rate (Japan) (Frequency)

This year saw the first accident resulting in lost workdays since FY2019. We are actively striving to identify the cause of the accident and improve the work environment of affected personnel.



#### Number of male employees taking maternity or childcare leave (Japan) (Number / %)

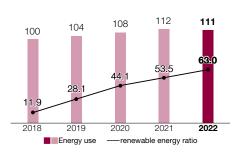
The rate of men taking paternity leave is increasing in response to our effects.



#### Energy usage / renewable energy ratio

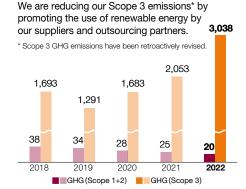
(GWh / %)

We are making good progress toward our goal of sourcing 70% of our energy from renewable sources by 2030.



#### GHG(Scope 1 + 2, and Scope 3)\* emissions

(kt-CO<sub>2</sub>)



<sup>\*</sup> Including temporary employees

# Value Creation



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**Core Values** 

INTEGRITY

#### Value Creation Process

#### **Value Creation Drivers**

Anticipating significant mid/long-term growth in the semiconductor test market amidst the ongoing digital transformation, we have positioned our Grand Design and Mid/Long-Term Management Plan as our core management policies. This framework identifies five management focus areas as strategies, and we are working to improve corporate value by intensively investing financial and non-financial capital in these areas.

Purpose & Mission

Enable Leading-Edge Technologies

#### Corporate Culture: the Foundation of the Value **Creation Process**

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The Advantest Way specifies the purpose and mission, vision, and core values that all Group employees should share.

This is the basis of our corporate culture. It provides the context for our employees to maximize their abilities and achieve our Grand Design targets.

#### Solutions for Customer Challenges: the Output of the Value Creation Process

We provide test systems and other products, software, support and services, but these are just means to an end. Our ultimate goal is to help solve customer challenges and issues. and to deliver value in the form of future outcomes, through solutions that enable leading-edge technologies.

#### **Adding Customer Value Output** Input **Outcome** Customers Forward-Looking R&D · Time to Market, Time to Quality, Time to Volume (Response to Customers) Reinforcement & Expansion · Improved Customer Satisfaction Leads to **Future Needs**) **Customer-Facing** Business Expansion eloping next-generation **R&D Capital** Capital Sales technologies to **Maintenance & Services** Supply Chain (Sales & Services) (Accurate Understanding of (Sustaining Product · Secure & Expand Business Opportunities future needs \_ (Customer Requirements) **Utilization Rates**) · Sharing Awareness of Environmental Footprint Sharing Information on globa Reduction Prompt global support Value Creation Drivers 5 Key Strategies Customer 1 Reinforce Core Businesses, Invest Strategically · Self-directed Career Development and Greater Satisfaction Human **Financial** Seek Operational Excellence Job Satisfaction Improvement Capital Capital · Proactive Response to Change 3 Explore Value to Reach a Higher Level **Local Communities** 4 Pioneer New Business Fields · Tax Payments, Employment, Environmental Enhance ESG Initiatives Product Development Manufacturing · Contributing to a Safe and Secure Society (Higher Performance, Lowe (Faster Delivery, Better Reliability) Through the Wider Adoption of Semiconductors **Environmental Footprint Ecological** Manufacturing Global Environment Sharing amassed measurement technologi Capital Capital · Contributing to a Sustainable Future for the Earth pability and outsourcing and global technology nagement capabili · Shareholder Value Improvement, Shareholder Adding Customer Value Motivating Shareholders to Invest and Hold Advantest Stock over the Long-Term **The Advantest Way**

Vision

Adding Customer Value in an Evolving Semiconductor Value Chain

# R&D Capital: CTO Message



Senior Executive Officer CTO (Chief Technology Officer)

### Juergen Serrer

#### The Advantage of Our Long-Term **Accumulation of Test Assets**

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Advantest began developing semiconductor test systems in the late 1960s and achieved global share dominance in 1985. We have maintained our market-leading position ever since. We have a vast portfolio of solutions built up over many years, covering a wide variety of semiconductor devices, as well as an unmatched arsenal of related assets such as test programs and know-how. In addition, headroom is designed into our test systems in anticipation of future test needs, allowing users to rely on the same system for 10 years or more. These assets provide users with an incentive to continue using our test systems, and significantly boost our competitive advantage. In addition, we have a track record of successful consultations that have helped our customers formulate test plans. Amidst the current trend for global "hyperscaler" IT companies to develop their own semiconductors, the value of our ability to provide comprehensive one-stop test solutions and services required for the start-up of the test process is increasing.

#### **Discussions With Customers Hone Our Technological Capabilities**

We at Advantest approach R&D from the perspective of solving customer problems. We have a long history of meeting and exceeding customer expectations with our technologies. Given that multiple factors such as product longevity, functionality, delivery time, cost, and more all play into technology development, this is no easy task. As stated in the "Core Values" of The Advantest Way, we hold discussions with our customers based on mutual trust and respect, and these discussions help us to propose the number one solutions to their technology challenges. Mutual technological capabilities and trust relationships facilitate deeper communication that ultimately leads to the development of superior solutions, strengthening both Advantest's and the customer's technological capabilities and enhancing our relationships of trust.

New players do occasionally enter the semiconductor test market, despite the obstacle of high switching costs. However, we are confident in our long-standing relationships of trust with our customers, and no new competitor could match our understanding of customer test needs or our capability to develop fundamental technologies that meet those needs. In addition, we have developed our own dedicated semiconductors for our test systems, which makes an overwhelming difference in terms of performance for advanced semiconductor test.

#### Advantages of a Cross-Functional Approach to Test System **Development**

The semiconductor business, especially the SoC business, is subject to fluid and unpredictable evolution, which means that a multiplicity of unknown factors must be addressed in the development of test technology. During the development of our flagship test system, the V93000, our first task was to thoroughly research the industry and customers, define their biggest challenges, and develop strategies for solving them. Our marketing personnel and salespeople in charge of customer accounts play a leading role here. By concentrating resources on problem definition, it is possible to avoid backtracking at the production stage and accomplish projects in relatively short timeframes. Early, in-depth understanding of customers can also be a competitive advantage.

However, things often change dramatically in midstream. We

R&D Capital: CTO Message

continuously review our strategies during the life of a project, and rapidly revise our solutions portfolio and technology roadmap in response to market changes. "Rapidly" is the key word!.

These tasks are difficult for the R&D division to handle alone. Personnel with appropriate skills and experience from all departments related to the lifecycle of the product under development, such as marketing, prototyping, production, and customer support, join R&D in a "cross-functional" team to handle each project. In the course of exploring trade-offs such as performance versus cost and delivery date, the boundaries between these departments become less important, and the team becomes unified around its goal of solving customer issues. This is a major advantage of our cross-functional approach, which avoids the siloing issues that tend to plague the "waterfall model" of development.

#### Our Technological Capabilities Spring from Our Human Resource Development System and Corporate Culture

State-of-the-art test technology is composed of various theories and know-how, which cannot be purchased on the open market. Ultimately, our R&D superiority rests on the skills of our engineers, and we emphasize the development of human resources who can deeply understand customer needs and apply them to solutions. In the past, Advantest's human resources development centered on the informal transmission of skills from one generation to the next. This so-called OJT is important in its own way, but is insufficient to keep up with the rapid pace of technological evolution. Currently, to promote the education of our engineers around the world, we are implementing basic education programs

tailored to each level of competence. Furthermore, as a system for improving design quality from the earliest stages, we have a "Design Review Meister System," where experts in each specialty participate in design reviews at key points during the R&D process, and also provide guidance and training to young employees. In addition, although it is not so easily visible, we also have a corporate culture where employees can discuss issues freely regardless of seniority, empowering young employees to take on challenges, where even if they fail, they will not be blamed. This unique system and corporate culture nurture our employees, who in turn generate Advantest's unique strength.

Our major semiconductor test system R&D facilities are located in Boeblingen, Germany, and Gunma, Japan. In order to develop products incorporating new ideas, we regularly hold technology exchange meetings between these two locations, which often throw up clues for development. In fact, parts and software developed in Japan are used in our flagship V93000 test system, whose development is led by our German team. R&D synergies through such technology exchanges are not limited to these two locations, but also exist among our locations in the United States and other countries. Additionally, we carry out fundamental research at our research institute in Sendai, Japan, and also sponsor endowed programs at various universities around the world,



A test processor designed for V93000 EXA Scale test system developed jointly by Germany and Japan including Germany and Japan. Some of the fundamental research carried out at these laboratories feeds into the development of advanced fundamental technologies for testers, which enhances the competitiveness of our products.

# How Advantest is Seizing Al Opportunities

Al has the potential to become a significant driver of our tester business. If generative Al tools such as ChatGPT are implemented in various applications and come into widespread use, we can expect to see a demand stimulus on the level of smartphones. We have years of business experience with the processors most commonly employed in generative Al, positioning us to lead the market in Al-related semiconductor test. We will continue to deepen customer engagement and grow together with our customers, while contributing to the implementation of Al through semiconductor test.

Al may transform not only the semiconductor market but also semiconductor manufacturing processes. By gathering and analyzing data from across the value chain, we can instantly see where and how to improve processes, which can dramatically improve semiconductor productivity. Test data include all sorts of information about semiconductor processes, but test systems cannot turn those data into actionable information without specialized software. We recently launched Advantest Cloud Solutions™ (ACS), an ecosystem of software and services that enables real-time machine learning about semiconductor processes. ACS has begun to develop solutions for customers, particularly in advanced semiconductors. By building on these efforts, we will ensure that we capture every business opportunity created by the rise of Al.

### Customer Relationship Capital: CCRO Message



Senior Executive Officer CCRO (Chief Customer Relations Officer)

#### Makoto Nakahara

#### **Our Unique Customer Relationship Capital** Mirrors the Global & Organizational Structure of the Semiconductor Industry

The semiconductor value chain has dis-integrated over recent decades, and it is not uncommon for the fabless company that designs chips, the foundry that manufactures them, and the OSAT (Outsourced Semiconductor Assembly and Test) that packages and tests them to all be separate companies.

Many of our test systems are installed at foundries and OSATs that deploy volume production processes. Testing begins at the upstream design evaluation stage, so when a foundry uses the same tester for volume production that their fabless partner used for design evaluation, they can guickly ramp up production of new products by utilizing test programs and data created at the design stage. On the other hand, foundries and OSATs have an incentive to improve the availability of their own test systems.

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In the test system business, it is necessary to coordinate the intentions of each company, including fabless companies, and conclude business negotiations with all of them, instead of holding one-on-one talks with foundries or OSATs. In addition, the semiconductor supply chain is distributed around the world, and partner companies are often geographically separated, with many fabless companies located in North America and foundries and OSATs in Asia.

At Advantest, we operate customer support teams consisting of fabless account sales, foundry and OSAT account sales, marketing and business development departments, system engineers and field service engineers who support customers locally, and R&D personnel. In addition to the customer system and test needs information held by the sales personnel, marketing provides information on market and technology trends, and business development provides information on the features of our solutions that meet customer needs, enabling our teams to propose solutions that meet the requirements of both fabless and foundries/OSAT by integrating them. This global and seamless support is the source of our unrivaled customer relationship capital.

At one time most of our customers were IDMs (Integrated Device Manufacturers). After our acquisition of Verigy in 2011, we were able to rebalance to address the challenges of the fabless/ foundry/OSAT ecosystem by integrating Verigy's knowledge of this business, leveraging our expanded product portfolio and support system, and maximizing the synergies generated by our shared corporate culture to solve customer issues.

#### **Building Relationships of Trust Is** the Foundation of All We Do

In addition to hardware and software sales, our account sales personnel are involved in a series of processes such as test program creation, test system installation, and troubleshooting arrangements. The role of sales is to increase customer satisfaction by listening to everything customers have to say and committing to deliver results. Our record of fulfilling commitments creates relationships of trust with customers and reinforces our customer relationship capital.

In order to win customer trust, we build relationships of trust not only with contacts in charge of test, but at all levels, including top management. If multiple customers are involved in one business negotiation, we build a relationship of trust with all parties involved. In addition, sales is not solely responsible for winning orders. The cooperation of related departments within Advantest is necessary, so it is important for sales personnel, who act as coordinators, to have strong relationships of trust with their colleagues.



Customer Relationship Capital: CCRO Message

# Betterment of Human Capital Improves Competitiveness

The skills required of a salesperson are: (1) the ability to correctly understand customer requirements and provide internal feedback; (2) the ability to assemble the most valuable solutions for customers while consulting with customers and internal stakeholders; and (3) the ability to accurately understand and communicate the value that our solutions bring to customers. To make practical use of these skills, sales personnel must not only understand our products and technologies, but also research and analyze trends in the semiconductor and semiconductor test markets, strive to collect information on our customers' products and test strategies, and understand their organizational systems and decision-making flows. All this is necessary to succeed in sometimes-tough business negotiations. Experience enables sales personnel to grasp the essence of customer requests, identify their needs, and arrive at the optimal solution while managing trade-offs between performance, cost, and delivery. We provide various training and skill improvement opportunities for our sales personnel. In order to avoid excessive dependence on individual skills, we are working to raise the overall level of our sales capabilities by sharing the know-how accumulated over the years within our sales department. In addition, we aim to improve our customer value proposals while frequently exchanging information with marketing, which collects and analyzes market and test technology trends, and business development, which formulates sales promotion measures for our broad product portfolio.

#### Resolving Customer Issues

Techlnsights, a semiconductor market research company, conducts a highly regarded annual customer satisfaction survey. In the latest survey, published May 2023, Advantest

was ranked the No. 1 semiconductor production equipment manufacturer in terms of customer satisfaction for the fourth consecutive year. In addition, we made the "10 BEST Suppliers" list in the semiconductor manufacturing equipment (large supplier) category for the 35th consecutive year. Beating out production equipment companies around the world that support leading-edge semiconductor technology, we are proud to say that this evaluation from a third-party organization indicates our deep engagement with our customers.

Survey respondents scored us highly on trust, technology leadership, partnerships, and commitment. However, Advantest sales personnel on the job are focused on something simpler: working earnestly to solve customers' problems. It often comes down to basics such as wording and the best way to proceed with business negotiations. However, we believe that continuing to sincerely address these issues builds relationships of trust with our customers, which reinforces our customer relationship capital.

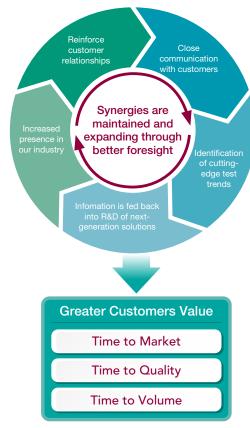
Our sincere commitment to helping customers solve their problems has become something of a culture in our company after all these years. Still, we do not take it for granted, but aim to further instill it in employees as a cherished value. This is shown in our INTEGRITY core values, part of the Advantest Way, as detailed in this report's section on human capital.

# The VOICE That Connects Advantest With Customers and Partners

Every spring, we hold a user conference called "VOICE" jointly with an organization of customer volunteers. This event brings Advantest's customers and partners from all over the world together to share information on the latest test technology trends and our test solutions through technical presentations and workshops. In the semiconductor industry, where technological evolution and product development can happen at blinding speed, it is common wisdom that we can all move

forward faster if companies exchange test-related know-how, rather than hoarding it in-house. VOICE also functions as a place for our company, customers, and partners to interact and build relationships, while also strengthens our customer relationship capital.

During COVID-19, we were forced to cancel VOICE or hold it online. However, since we started holding it as a real event again in 2022, participant numbers have surged to record highs for two years straight. VOICE will continue to serve as a "voice" that connects our company with our customers and partners.



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# Human Capital: CHO Message



Senior Executive Officer CHO (Chief Human Capital Officer) & CCO (Chief Compliance Officer)

#### **Keith Hardwick**

# The Important of Human Capital Management

With the aim of continuing to embody our Purpose & Mission of "enabling leading-edge technologies," Advantest has formulated a mid/long-term management policy, our Grand Design, and we are addressing strategic issues to achieve the goals set forth in it. To this end, we recognize the crucial importance of bettering our human capital, research and development capital, manufacturing capital, customer relationship capital, and other forms of which—all of which share human capital as their foundation. Our personnel strategy, therefore, is necessarily tied to our management strategy.

In order to enhance the comprehensive strength of our human capital, we are promoting various initiatives based on the "two wheels" of *individual strength* and *organizational strength*.

#### Boosting Individual Strength

First, regarding individual strength, we will put even more effort into skill development. Our "Advantest Development Framework" defines the abilities required of our employees in terms of "basic skills", "advanced skills", "management skills", and "executive/senior management skills." Based on this framework, we offer three e-learning platforms, LinkedIn, Franklin Covey, and Udemy, to support employee self-development. In addition to various types of employee training, we are also reinforcing the selective training we provide to nurture the next generation of management personnel. In 2023, we established our Basic Policy for Human Resource Development. We regard our human resources as human capital, indispensable for the sustainable growth of our

organizational strength, which is formed from individual strength, will increase employee engagement and promote the creation of value at our company. We therefore hold that human resource development is an investment in human capital, and will increase employee engagement and promote value creation. We have made it clear that we will actively, continuously and fairly develop our human resources based on our Advantest Development Framework.

In terms of securing necessary human resources, we take a 30,000-foot view of the recruitment landscape, and are strengthening our activities so that we can recruit the necessary human resources in the necessary regions. We also have a stock compensation plan for retention that encourages our best employees, especially our best engineers, to stay with us.

#### **Boosting Organizational Strength**

Since revising The Advantest Way in 2019, we have been working to instill our INTEGRITY core values in employees. The impetus for this can be traced back to our integration with Verigy in 2011. This integration was a major turning point for us. Currently, more than 60% of our employees work outside of Japan, and Advantest has become a company inclusive of people with different cultures and backgrounds. We have implemented changes such as unifying job levels globally and introducing a global bonus system tied to consolidated financial results, and have strengthened our management foundation to better support cross-border and cross-functional operations.

Following these steps, we worked on building a common corporate culture to promote our transformation into a global company. Our company has always had a code of conduct that instructs employees to "seek the essence," and Verigy, originally a Hewlett-Packard spinoff, had its own "HP Way." To build a

company. Additionally, it is our conviction that the two wheels

of individual strength, enhanced through training, and

new corporate culture that would draw out our post-integration potential, while respecting each other's values, we created a global team, brainstormed and debated repeatedly, and as a result arrived at our INTEGRITY core values.

After revising The Advantest Way, we held workshops for all of our employees around the world to deepen their understanding of The Advantest Way, including the new INTEGRITY core values. In FY2021, we focused on "Leadership" and held "Leading with INTEGRITY" workshops for all managers around the world to encourage their growth as leaders. Next, as an initiative to help employees embody INTEGRITY in their daily work and establish it as a true corporate culture, we established the INTEGRITY AWARDS, where employees who embody INTEGRITY are commended and honored by recommendations from their colleagues, and with the goal of firmly incorporating INTEGRITY into our corporate culture, instead of leaving it as a short-term project, we have established a system of "INTEGRITY Ambassadors" all over the world, led by our Group CEO. This fiscal year, under the slogan of "Leading and Living with INTEGRITY," we will focus on deepening our leadership, human resource development, award systems, engagement, and communication with reference to our core values.

#### Our Personnel System Connects the "Two Wheels" of Individual and Organizational Strength

We will also work on strengthening and revising our personnel system, which links individual strength to organizational strength. Instead of dealing with issues as they crop up, we will optimize our human resource system from the perspective of what is necessary now to get where we want to be five or ten years from now, based on our mid/long-term management strategies. For example, in Japan, we have created a human capital strategy initiative (HCSI)--a vision of the personnel



\*The implementation will be adapted to local rules and practices

system we should aim for--and plan to implement it in stages. We are also preparing to introduce a job-based grading, evaluation, and compensation system for managers. In addition, we will introduce a program called Management Program 1 (MP-1) to promote motivated and capable employees to managerial positions, regardless of age. This program aims to help employees acquire a wide range of skills required for managerial positions. It is completely voluntary, but participants cannot complete the course unless they reach a certain level. In the future, we plan to make MP-1 completion a prerequisite for promotion to managerial positions. We aim to make use of the knowledge gained from implementing

these new systems and use it to transform our personnel system globally.

In addition, recognizing that maximizing individual strength as enhanced through human resource development, etc., is directly linked to the improvement of our corporate value, we will work to actively, continuously and fairly develop an internal environment for human capital. In 2023, we will establish an "Internal Environmental Improvement Policy." We have clearly stated that the Advantest Way is the cornerstone of our globally united team, composed of highly diverse employees, and that we accept, encourage, and support diverse workstyles so that every employee can achieve work-life balance.

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# Financial Capital: CFO Message



Senior Executive Officer CFO (Chief Financial Officer) & CSO (Chief Strategy Officer)

#### Yasuo Mihashi

#### My Role as CFO

I was appointed CFO in June 2023. Since I joined Advantest in 1991 nearly thirty years ago, I have spent time in sales, marketing, strategy, and investor relations, including five years in the United States. As a sales and marketing manager, I focused on differentiating our testers in the global area and winning customer acceptance. From 2019, I was involved with formulating competitive strategies for the entire company as General Manager of the President's Office. In addition to evaluating M&A projects for relevance to our business, synergy potential, and ROI effectiveness, and planning ESG initiatives, I was also in charge of conducting investor relations events, including interviews, company briefings, and overseas IR activities, a role in which I was fortunate to have many conversations with analysts and investors. I am concurrently serving as Chief Strategy Officer (CSO) and hope to more closely connect that role to financial analysis of investments and M&A transactions. My goal is to make good use of this perspective, balanced with the CFO's perspective on communicating the strengths of our business and the significance of our existence for the common good to investors, to contribute to the improvement of corporate value. In addition, I will explain Advantest's efforts not only in financial terms but also terms of in non-financial disclosure, for which requirements will expand in the future.

#### **Current Business Conditions & Decline in Gross Margin**

In FY2023, final demand is expected to decline due to the global economic slowdown, resulting in surplus inventories and production adjustments in the semiconductor industry. The slowdown in demand is expected to also impact our sales and profits. Although we will reduce expenses in view of the decreasing sales, our operating margin is forecasted to decrease significantly from the previous fiscal year, mainly affected by an expected decline in gross margin. In the fourth quarter of FY2022, gross margin declined compared to the

recent quarterly trends due to the recording of inventory valuation losses for some products, and already in the first quarter of FY2023, it has deteriorated further, showing a significant decline compared to the corresponding period of the previous fiscal year. Again, compared to the corresponding period of the previous fiscal year, our sales mix turned less profitable, while costs increased due to investments in our production facilities, mainly in the United States, and gross sales decreased. As a result, gross margin declined. Our gross profit margin fluctuates depending on our sales mix because the profitability of our products differ according to which types of semiconductor devices they test. In particular, smartphone demand is currently weak, and the recovery of this sector will factor into the recovery of our gross margin. Although we are continuing our efforts to reduce costs, we are

# Sales/Gross Profit/Operating profit Income ■Sales ■Gross Profit ■Operating Income → Gross Margin → Operating Margin (¥B) 150.0 112.5 4Q 1Q

Financial Capital: CFO Message

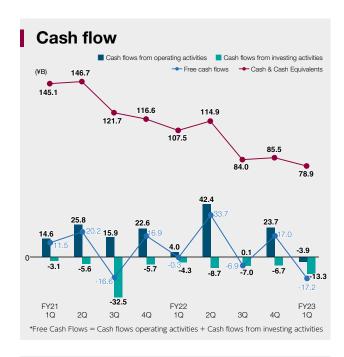
also seeing the impact of inflation in terms of higher material prices. We are continuing our efforts to pass on these price increases to our product prices. Although gross margin in FY2023 is expected to decline from the previous fiscal year, we consider a gross margin to be an indicator of the strength of the business such as profitability, and we will continue to work to improve it.

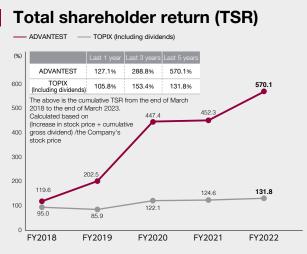
#### Financial Situation

Our basic approach to funding remains the same as in the past. We will increase profitability and asset utilization efficiency in order to maximize cash flow. To achieve our mission, we will allocate funds to investments in future growth and technology development, including M&A. In addition, we will take financial measures such as share buybacks and other measures to return profits to shareholders when we have excess cash on hand. In the current environment, we do not have a lot of room to maneuver. The impact of our strategic efforts to secure inventory we began to implement last year continues, and operating cash flow has not grown in step with profits due to higher inventories that we hold in order to ensure that we can deliver to customers on a timely basis. As the semiconductor market is expected to decline year-on-year in FY2023, we are striving to improve cash flow while effectively consuming inventory. We believe that shortening our cash conversion cycle is a major issue in terms of maximizing cash flow, and we will proceed with these efforts while balancing current business conditions and inventories. Funds are tight at the moment, but we have signed a commitment line agreement with a financial institution and have secured liquidity.

#### Cost of Capital

The Japan Exchange Group (JPX) announced on May 26 that it had selected Advantest as a component of the "JPX Prime 150 Index". This index is selected based on equity spread and PBR, and we have met both criteria. JPX uses the so-called CAPM to calculate equity spreads, and we use a similar concept to estimate our own cost of capital. There are many different ways to calculate market returns, but we expect our market returns in Japan to be around 6%. The risk-free rate used in the formula refers to the 10-year Japanese government bond yield. However, regarding the  $\beta$  value, it tends to be high in the semiconductor industry at around 1.5. Therefore, under current conditions, we estimate our cost of capital based on CAPM to be 9-10%. To generate a positive equity spread, we use company-wide cost of capital as a base to set targets for our main businesses that match the characteristics of each business, and use these to evaluate whether each business is creating value. Specifically, one of our business evaluation indicators is AVA (Advantest Value Added), a unique indicator based on EVA, a management indicator that measures corporate value creation. We evaluate value creation based on AVA and business profitability. Since the introduction of AVA, we have repeatedly discussed how to manage invested capital and profit and loss, and have updated the AVA formula as necessary in line with our business development.





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# Manufacturing Capital: CPO Message



Senior Executive Officer CPO (Chief Production Officer)

# Soichi Tsukakoshi

# Advantest's Hybrid Manufacturing System is One of Our Strengths

The greatest strength of Advantest's manufacturing system is that we effectively combine outsourcing to EMS (manufacturing services providers) and in-house production. Outsourcing to EMS enables us to flexibly expand/reduce production in response to the business cycle and market demands, while utilizing our EMS partners' abundant manufacturing technology and know-how. In-house production, on the other hand, enables us to quickly ramp production of new products and accumulate our own manufacturing technology and know-how. Our understanding of the advantages and disadvantages of each method enables us to select the most advantageous way to manufacture each product.

In the past, Advantest manufactured almost 100% of our products in-house, but with the acquisition of Verigy in 2011, we also adopted the EMS production method that Verigy had used, and switched some manufacturing from in-house to outsourced production. Our EMS partners now handle more than 90% of our test system and test handler manufacturing, and the role of our Japanese production division, which had previously handled in-house production, has changed significantly. The Gunma Factory, our in-house production facility, is evolving into a "mother factory" that operates the entire manufacturing process in collaboration with our outsourcing partners.

# Our Evolving Parts Procurement Strategy

Parts shortages from mid-2021 have had a major impact on the entire semiconductor supply chain. Our company is no exception, and we have been forced to lengthen product lead times because our procurement of parts could not keep up with rapidly increasing orders. We have therefore reinforced our procurement system on the following strategic lines:

- Assigned procurement managers for important suppliers and EMS partners, and strengthened partnerships by establishing regular face-to-face communication channels with key individuals at the executive level
- Concluded long-term purchase contracts with specific suppliers to hedge against the risk of shortages of parts we purchase in large quantities
- Reduced procurement risks significantly by switching from custom parts to generic parts and multisourcing parts
- Used IT to visualize supply chain conditions and enable speedy decision-making

Stronger partnerships with suppliers have been effective in maintaining and improving our procurement capabilities, and have helped us to achieve record-high sales even in the present extremely tight procurement environment. Even now that supply conditions have improved, we still aim to do more, such as negotiating for shorter lead times. We will continue to work to strengthen our relationships with our suppliers, while also evolving our procurement functions into a more global and professional system, and boosting our bargaining power to deliver the best solutions in terms of market position and strategy for both Advantest and our suppliers. When a new company joins the Advantest Group through M&A, we will promote procurement strategies from a global and bird's-eye view rather than settling for separate optimization of each company's procurement.

Regarding long-term purchase contracts, although they have temporarily contributed to an increase in inventories, they are not bad assets. On the contrary, they ensure that we can meet customer demand in full. To reduce procurement risks, the procurement and R&D divisions are working together to promote standardization, the use of generic parts, and multisourcing. In addition, considering recent geopolitical trends, we have started to analyze procurement risks associated with raw materials and the countries they come from.

Manufacturing Capital: CPO Message

#### A Critical Moment for IT Utilization

Regarding the use of IT, simply adopting new tools and digitizing materials is not enough. We recognize the need to review our work flows across the whole Advantest Group, eliminate unnecessary work, and then optimize. Only by standardizing manufacturing concepts and flows across departments and eliminating silos can we benefit from the full potential of IT.

In October 2022, we established a Global Business Operations Group. In anticipation of the possibility of further sales growth beyond the ¥500 billion we achieved in FY2022 in the mid/long-term, we promoted the visualization of procurement and manufacturing data on a company-wide scale, and as a result, we were able to build a system where employees can refer to large volumes of data related to production in real time. By simply clicking a button on the display, colleagues around the world can check current inventory status and future parts requirements at a glance. For our suppliers, we can communicate our company-wide requirements for each part in real time. Currently, we are at the stage of considering how we need to revise processes such as inventory management, production adjustments, and procurement negotiations based on real-time data, and how to improve our business processes. We recognize that this is much more difficult than building a system, especially as it will also require our employees to change their mindsets, but we will continue to embrace these challenges while learning from pioneers in the manufacturing industry.

#### Sustainable Manufacturing: BCP, Environmental Conservation, Human Rights

To build a stable supply system, it is necessary not only to

procure parts, but also to secure multiple EMS partners. This is also desirable from the perspective of our BCP (Business Continuity Plan), which requires us to ensure continuous supply even in the event of a large-scale natural disaster such as earthquake or flood. But to efficiently allocate our outsourcing needs among multiple EMS, it is important to standardize our workflows and utilize IT, as mentioned above. This also applies to the supply chains of companies that joined the Advantest Group through M&A. We will introduce a shared IT environment and aim to operate a supply chain management system that can respond to any situation.

Recently, there has been a growing awareness of environmental conservation in the semiconductor value chain, with customers emphasizing environmental impact in product selection and subcontractors taking the lead in adopting renewable energy. Human rights in the supply chain is another concern recently gaining prominence. At Advantest, the production division and the ESG department are working together to save power in our manufacturing processes, adopt renewable energy, and request subcontractors to think about the work environments they offer employees.

# Sustainable Growth Through Operational Excellence

Over the past few years we have experienced various difficulties, including parts shortages. This experience informs our conviction that the greatest customer value manufacturing can deliver is a stable product supply, and the most effective way to ensure a stable product supply is to further shorten manufacturing times. This reduces the risk of order cancellations, delivery date postponements, and reworking due to configuration changes. Beyond the supply side, shorter manufacturing times bring many benefits such as improved cash flow, reduced factory floorspace needs, and lower power

consumption.

Our future challenge is to achieve operation excellence that our competitors can not match by reviewing every aspect of our manufacturing flow from the ground up and further utilizing external resources and knowledge, such as EMS. With the continued support of our suppliers and EMS partners, I would like to aim for mutual sustainable growth.



# Sustainability



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## Message from Advantest's Director of Sustainable Management

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## Towards a "safe, secure, and comfortable society"

The global economy in 2023 is marked by recessionary concerns, which are increasing due to monetary tightening and soaring energy prices in major developed countries in Europe, the U.S., and Asia. In addition, the slowdown in growth due to the impact of COVID-19 pandemic and the tense situation in Ukraine, continuing from last year, has acted as a drag on economic activity, while sluggishness and financial risks are also coming into view in emerging economies and less-developed regions. Reforms to curb inflation and policies to stabilize the macroeconomic and financial situation are needed at the national level, especially in major countries, to establish a strong and sustainable economic foundation beyond 2024. In addition, challenges such as climate change and other global environmental issues, preservation of biodiversity, and labor market mobility in response to declining birthrates and aging populations, are becoming increasingly serious with each passing year. In this economic and social environment, Advantest strives to maximize customer satisfaction by accurately grasping customer needs and providing solutions in our core semiconductor test equipment business through fair and prudent corporate activities, all while improving our corporate value by ensuring sustainable management that emphasizes "Environmental," "Social," and "Governance."

The following are our ESG initiatives from the Second Mid-Term Management Plan (MTP2), which was formulated and launched in FY2021. We have evaluated and improved our KPIs for "E," the environmental aspect of ESG, and set goals focusing on key issues such as greenhouse gas reduction, the introduction of renewable energy, shortening production times by optimizing production processes, strengthening our development and sales of green products, resource recycling and biodiversity. For "S," the social aspect of ESG, we have enhanced our activities related to human rights and occupational health and safety, conflict minerals elimination, respecting and observing fair trade practices, and procurement policies aiming for increased transparency and reliability throughout the supply chain as a means to fulfill our corporate social responsibility. In addition, our global human resources initiatives aim to promote diversity, instill human rights policies and strengthen relevant education, and enhance employee engagement. These initiatives and measures also tie into improving customer satisfaction. Regarding "G," the governance aspect of ESG, our board has held frequent discussions based on business strategy briefings, considered how to increase its own efficiency and effectiveness, conducted detailed succession planning, and discussed how to further train employees worldwide in the Advantest Way. We are also working to reinforce our compliance and risk management systems.

Meanwhile, innovations in digital infrastructure such as communication networks and data centers are moving in tandem with rapid changes in technology, such as the evolution of the semiconductors used in these applications. The digital transformation of our world is accelerating. Amidst these changes, Advantest continues to deliver safety, security, and comfort to people worldwide through semiconductor test. Semiconductors are now incorporated into a wide variety of products and infrastructure, from industrial goods to commodities. They enrich people's lives, enhance convenience, and help to solve social issues. These same semiconductors are rapidly evolving to deliver even higher performance in their many roles. As semiconductors come to be used in more and more diverse applications, defective semiconductors no longer just cause inconvenience. Defects in the semiconductors used in automobiles, medical equipment, and data servers can lead to serious problems and even loss of life. Therefore, it is essential for semiconductor manufacturers to carefully check the quality of their devices during the verification process to ensure that they operate as designed, and inspect them thoroughly during mass production. Advantest's products are used for these processes. That is why we believe that our products play a key role in everyone's safe, secure, and comfortable lifestyles.

In the future, we plan to roll out new measures representing our commitment to "E," "S," and "G." We will create a roadmap for our participation in the RE100 initiatives to further strengthen our response to climate change issues, aiming to reduce greenhouse gas emissions by 60% by FY2030 compared to FY2018. We are determined to work together with our customers, business partners, and other stakeholders to help realize a carbon-neutral society. In terms of "Social," our human capital policy calls for the promotion of diversity from various perspectives, including not only race and gender, but also different cultures and backgrounds, and the reform of various personnel systems, including human resources education, skills development, human resources promotion, and compensation systems. This corporate culture transformation will be carried out in the spirit of our INTEGRITY core values, which help shape each employee's actions. We are also committed to acting in a manner that protects our stakeholders' human rights, and are working to eliminate any attendant risks to human rights from our corporate activities by strengthening our compliance and risk management systems. In terms of "Governance," in order to strengthen the CxO structure introduced in 2021, we shifted from one to three representative directors from January 2023, with the aim of enhancing our global management system. This transition is part of our succession plan, and we are also working to further strengthen our management structure by diversifying our human resources through the appointment of global human resources.

We have designated the further enhancement of ESG initiatives as one of the key strategies of our mid-/long-term management policy, and will continue to innovate on this axis, aiming to further grow our corporate value and contribute to our shared, sustainable future.

Thank you for your continued support.



September 2023

Yasuo Mihashi Senior Executive Officer, CFO & CSO Executive Vice President. Corporate Strategy Group

## Further Enhancement of ESG Initiatives

The Advantest Way, which defines our management philosophy, sets Sustainability through ESG Promotion as one of our management guidelines. Under our second mid-term management plan (MTP2) which started in FY2021, we aim for further advancement of our initiatives through the formulation and implementation of our ESG Action Plan (2021 - 2023).

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### Our Approach to Sustainability Issues

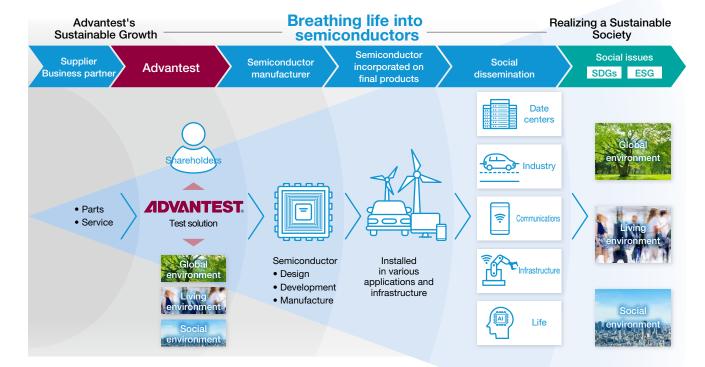
Advantest delivers safety, security and comfort to people worldwide through semiconductor test.

Semiconductors are now incorporated into a wide variety of products and infrastructure. They enrich people's lives, enhance convenience, and help to solve social issues. These same semiconductors are rapidly evolving to deliver even higher performance in their many roles. To maintain and improve our position in the global semiconductor tester market while keeping our focus on safety, security, and comfort, we have defined our purpose and mission as "enabling leading-edge technologies." We will continue to improve ourselves as a company and contribute to the common good through the development of leading-edge technologies, based on trends in advanced semiconductor technology, that are embodied in the products and services we provide to all our customers around the world.

We believe that building positive relationships with all our stakeholders, starting with society as a whole, and including the global environment, our customers, shareholders, employees, and business partners, and developing these relationships in a balanced manner, is crucial for the sustainable development of our business, and ultimately enhances our corporate value and stakeholder value.

The public value of semiconductor test is hard to perceive for many people, but we believe in offering value in a different way. Semiconductors whose performance and reliability are guaranteed by our leading-edge test technology are

incorporated into final products and used everywhere in our lives and industries, contributing to global safety, security, and comfort. Our business environment is constantly changing. Heightened uncertainty attends the geopolitical risk picture, and rapid inflation has also been seen recently. There is an increasing demand for companies to implement ESG measures, such as transitioning to carbon neutrality, ensuring the soundness of their entire supply chain, and strengthening corporate governance. In terms of technology, we anticipate an increase in demand for semiconductors and the active technological evolution of these semiconductors as digital transformation progresses, and technological solutions are sought for issues such as energy conservation. The semiconductor industry itself is likely to evolve toward greater complexity. Even amidst all this fluidity, we must build a stronger management foundation with the goal of growing sustainably through these challenges so that we can one day celebrate our 100th anniversary.



Further Enhancement of ESG Initiatives.

### ESG Action Plan 2021 to 2023

#### Contributing to the Creation of Social Value

We consistently aim to sustainably improve our corporate value.

For us to meet the expectations of society and contribute to humanity's sustainable future, we must build good relationships with all stakeholders, including society as a whole, global environment, customers, shareholders, employees, and business partners, and develop these

relationships in a well-balanced manner. By pursuing it, we believed that corporate value will improve and stakeholder value will also increase.

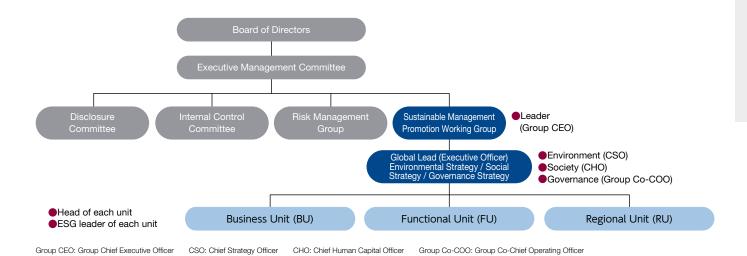
#### ESG Promotional Structure and ESG Action Plan 2021 to 2023

Among our mid/long-term initiatives to enhance our corporate value, Advantest promotes initiatives to boost sustainability as part of our "sustainability through ESG promotion". Specifically, based on the recognition that proactive ESG initiatives are essential for the sustainability of both our company and the world, we have established an ESG Basic Policy, which defines a framework of principles for fulfilling our responsibilities.

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Based on the ESG Basic Policy, in FY2020 Advantest established the Sustainable Management Working Group (SMWG), an organization directly supervised by the Executive Management Committee, to promote both the growth of our own business and the expansion of our social value contributions. The SMWG is a cross-functional organization with leaders of all business units, functional units, and regional units as members, which sets goals and KPIs related to the environment, society, and governance and directs mid/ long-term responses to priority issues.

In addition, with the support of the SMWG, Advantest has formulated an ESG Action Plan, based on our analysis of the importance of ESG issues in each unit, to address sustainability issues. We are working to implement this plan.



#### - ESG Initiative Basic Policy-

- 1) In line with the corporate philosophy expressed in the Advantest Way, we believe that taking full consideration of, and implementing concrete actions related to, ESG-related factors is essential for achieving sustainability for both Advantest and society in general. Based on this understanding, we aim for improvement of corporate value over the medium to long term. To fulfill that responsibility, we will strengthen and expand our business while balancing earning power with transparent decision-making and actions, within a framework of respect for stakeholders, consideration for the environment, and harmonious coexistence with society in general. We will also work to contribute to achievement of the SDGs with a view to the sustainability of our global future.
- 2) Our basic policy is as follows.
- 1. We continuously seek ways to reduce the environmental impact on the planet and our communities where we live, work, and do business.
- 2. We fulfill social responsibilities with a presence throughout the world.
- 3. We strive to consistently deliver high-quality products and services to our customers.
- 4. We appropriately return profits and disclose information to our shareholders and investors.
- 5. We treat our employees fairly, and ensures a positive work
- 6. We collaborate and cooperates with our suppliers.
- 7. We build a fair, effective, and highly transparent governance system.

Further Enhancement of ESG Initiatives

#### ESG Action Plan 2021-2023

40% 55%	60% 70%
55%	70%
30%	TBD *2
40	TBD *3
20%	50%
Announce release plan	Total elimination of PFAS in next-generation models
	JPN:90% Other regions:73% or more
<b></b>	288,000 m³/year
18 activities planned, 80% implemented	20 activities planned, 80% implemented
100%	100%
10.5%	17.0%
100%	100%
100% 25%	100% 50%
100%	100%
%	40  20%  Announce release plan  18 activities planned, 80% implemented  100%  10.5%  100%  100%

<sup>\*1</sup> CHO: Chief Human Capital Officer CPO: Chief Production Officer CSO: Chief Strategy Officer CTO: Chief Technology Officer

<sup>\*2</sup> Set products and target values considering future product lifecycles

<sup>\*3</sup> Set target values based on investigation of future major suppliers

<sup>\*4</sup> KPIs are changed according to actual activities

▶ Further Enhancement of ESG Initiatives

### ESG Action Plan 2021-2023

500	14	Executive in		1/21	20	21	20	22	2023	2030
ESG	Key Issue	charge*1	Goal	KPI	Target	Results	Target	Results	Tar	rget
<b>S</b> (Social)	Customer satisfaction,	CCRO	Raise customer satisfaction under New Normal circumstances	Ranking of Techlnsights customer satisfaction survey	1st	1st	1st	1st	1st	1st
5 GENDER EQUALITY	employee engagement	СНО	Edification and improvement of attractive corporate culture	Score of Gallup survey	3.5	3.6	Survey not conducted	Survey not conducted	3.8	4.1
8 DECENT WORK AND ECONOMIC GROWTH			Maintaining and enhancing occupational safety and health	Occupational accident rate (frequency rate)	0.00	0.35	0.00	0.47	0.00	0.00
<b>a</b>	Investing in human resources	СНО	Promotion of health management	To be selected in White 500 (JPN)	selected	selected	selected	selected	selected	selected
			Employee capacity building	Education and training expenses (100MY)	N/A	3.9	5.0	4.8	6.0	10.0
<b>G</b> (Governance)			Provide outside directors with updates on business and management issues	3 times/year	3 times/year	Implemented	3 times/year	Implemented	3 times/year	3 times/year
16 PEACE, JUSTICE AND STRONG INSTITUTIONS			Intensify discussion through Off-site meetings by board members	2 times/year	2 times/year	Implemented	2 times/year	Implemented	2 times/year	2 times/year
17 PARTNERSHIPS FOR THE GOALS	Board Effectiveness	Group CEO	Succession planning	Policy/process making, planning, updates	Discussion at Nomination and Compensation Committee and report to the Board of Directors	Implemented	Discussion at Nomination and Compensation Committee and report to the Board of Directors	Implemented	Discussion at Nomination and Compensation Committee and report to the Board of Directors	Discussion at Nomination and Compensation Committee and report to the Board of Directors
<b>**</b>			Diversity of board members	Outside directors must include female representation (>40%)	At least 40% outside directors and 1 female	Outside directors 45%, 1 female	At least 40% outside directors and 1 female	Outside directors 56%, 2 females		Goal continuation
			Add ESG performance assessment to compensation	Start from FY2021	ESG linked performance assessment	Implemented	ESG linked performance assessment	Implemented		Goal continuation
	Corporate culture and Code	СНО	Work Shop/training for all employees (The Advantest Way, Law, Regulations, Information securities, etc.)	Participation rate for e-learning (100%)	100%	98%	100%	92%	100%	100%
	of Conduct, compliance, risk management	CCO	Strengthening Internal Control	Regularly discuss internal control issues	Regular discussion	2 times/year	Regular discussion	2 times/year		Goal continuation
	Promotion & support of ESG management	CSO	Support & Report group-wide Policy, Strategy, Plan and implementation	Report to Executive Management Committee and BoD (once a year)	2 times/year	2 times/year	2 times/year	2 times/year		Goal continuation
	(Sustainable Management Working Group)		Timely and appropriate disclosure (Integrated Annual Report, Sustainability Databook)	Issuance every year	Publication of Integrated Report, Sustainability Data Book, etc.	Published	Publication of Integrated Report, Sustainability Data Book, etc.	Published		Goal continuation

<sup>\*1</sup> Group CEO: Group Chief Executive Officer CCO: Chief Compliance Officer CCRO: Chief Customer Relations Officer CHO: Chief Human Capital Officer CSO: Chief Strategy Officer

## **Environmental Initiatives**

Guided by The Advantest Way, Advantest implements climate change mitigation and adaptation measures from a long-term perspective, aiming to help solve important environmental issues through our business.

We also analyze and disclose information regarding business risks and opportunities related to climate change in alignment with the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures).

## ESG Action Plan: "E (Environment)"

Implementing our ESG Basic Policy, Advantest formulated our Environmental Action Plan under the "E (Environment)" category of the ESG Action Plan and launched it in FY2021. We have clarified KPIs for the three-year period of our second

We have clarified KPIs for the three-year period of our second mid-term management plan (MTP2, 2021 to 2023), with the goal of contributing to climate change mitigation and society-wide CO<sub>2</sub> emissions reduction.

## Climate Change Initiatives

Advantest actively engages in international initiatives on climate change.

As a global company, we have set goals linked to international norms and are implementing climate change mitigation measures.

Key Issue	Executive	Goal	KPI	20	)21	20	)22	2023	2030
Rey Issue	in charge	Goal	NPI NPI	Target	Results	Target	Results	Target	
	CSO	Reduce GHG emissions from business activities by 60% by 2030 (vs.FY2018)	GHG emissions reduction amount/ rate	35%	34%	38%	46%	40%	60%
Climate Change (Scope 1+2)	030	Raise renewable energy usage to 70% by2030, Group-wide	Coverage rate by renewable energy	50%	54%	53%	63%	55%	70%
	CPO	Reduce production times 30% through production process reviews (vs.Y2020)	Production time reduction rate for target models (vs. FY2020)	15%	21%	25%	37%	30%	TBD *1
Value Chain	CPO	Promote the use of renewable energy by suppliers and contractors	Number of suppliers who have introduced renewable energy	10	12	20	22	40	TBD *2
(Scope 3)	сто	Reduce CO <sub>2</sub> -equivalent emissions (basic unit) per test by 50% by 2030	Reduction rate in basic units (vs. FY2018)	Set basic unit calculation definition		-	Defined basic unit calculation definition	20%	50%
Green Products	сто	Develop products that are free from polluting substances	Total elimination of PFAS in coolant		nodology in ment plan	-	New methodology in development established	Announce release plan	Total elimination of PFAS in next- generation models
Resource	CHO	Improve in-house recycling rate by promoting the 3Rs	Waste recycling rate (Japan/overseas)	JPN:90% Other regions:73% or more	JPN:64% Other regions:77%	JPN:90% Other regions:73% or more	JPN:88% Other regions:74%		JPN:90% Other regions:73% or more
Recycling	CHO	Maintain Group-wide water usage at FY2016 levels	Water resource usage	288,000 m³/year	236,405 m³/year	288,000 m³/year	242,129 m³/year	-	288,000 m³/year
Biodiversity	CSO	Promote nature conservation activities (protection of endangered species in biotope, tree planting, beach cleanup, etc.)	Planning and implementation rate of nature conservation activities	10 activities planned, 80% implemented	11 activities planned, 73% implemented	14 activities planned, 80% implemented	14 activities planned, 100% implemented	18 activities planned, 80% implemented	20 activities planned, 80% implemented

<sup>\*1</sup> Set products and target values considering future product lifecycles

#### Outline of International Initiatives and Advantest Initiatives on Climate Change

Institution	Advantest's Initiatives
TCFD TASK FORCE OF CLIMATE-RELATED FINANCIAL DISCLOSURES	Based on the IPCC scenario for global temperature increase, Advantest will continue to analyze management risks and opportunities related to our business activities stemming from climate change, together with the relevant laws and regulations, and will enhance our information disclosure
SCIENCE BASED TARGETS	With respect to the temperature goal stipulated under the Paris Agreement, we have established a CO <sub>2</sub> emissions reduction target based on scientific knowledge and are working to implement the reduction.
RE100	We have formulated a plan to shift the electricity used in business operations to renewable sources and have begun implementing it.
CDP	We are actively disclosing information on our initiatives addressing risks caused by climate change based on the recommendations by the TCFD, SBTi, and RE100.

<sup>\*2</sup> Set target values based on investigation of future major suppliers

Environmental Initiatives

## Advantest Joins the Semiconductor Climate Consortium (SCC)

-Accelerating the reduction of greenhouse gas emissions across semiconductor value chain-

Advantest joined the Semiconductor Climate Consortium (SCC), a consortium established by the Semiconductor Equipment and Materials International (SEMI), as a founding member in 2022. We are currently working with companies that agree to the commitment of the SCC to speed industry value chain efforts in reducing greenhouse gas emissions from the semiconductor ecosystem. The SCC is the first global collaborative of semiconductor ecosystem companies focused on reducing greenhouse gas emissions across the value chain.



#### [Semiconductor Climate Consortium (SCC) Vision]

The Semiconductor Climate Consortium drives progress on climate challenges within our industry value chain and supports the Paris Agreement and related accords driving the 1.5°C pathway.

#### Collaboration

Align on common approaches, technology innovations and communications channels to continuously reduce greenhouse gas emissions.

#### Transparency

Publicly report progress and Scope 1, 2 and 3 emissions annually.

#### **Ambition**

Set near- and long-term decarbonization targets with the aim of reaching net zero emissions by 2050.

In November of the same year, we shared a "We Commit" video during the SCC session of the 27th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 27), demonstrating our active engagement with solving climate change issues. In addition, in January 2023, our SCC representative, Colin Ritchie, was also appointed as a new member of the SEMI North American Advisory Board (NAAB), where he serves as an advocate for member companies located in North America to address various challenges in the supply chain.

#### Shanghai office in China Also Achieves RE100

So far, the Advantest Group has completed the transition to renewable energy at our Gunma Factory in Japan, Munich Office in Germany, and San Jose Office in the U.S. In 2022, we also achieved the RE100 target at our Shanghai Office in China. Going forward, we will continue to work aggressively to raise renewable energy usage to 70% by 2030 by introducing renewable sourcing at other Group sites.



Colin Ritchie of Advantest making a presentation in the "We Commit" video, shown at COP27.

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## TCFD-based Climate Changerelated Information Disclosure

#### **Initiatives for the TCFD recommendations**

Guided by "The Advantest Way," Advantest implements climate change mitigation and adaptation measures from a long-term perspective, aiming to help solve important environmental issues through our business. In April 2020, Advantest announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and is engaged in analyzing and disclosing information on business risks and opportunities attributed to climate change.

#### Governance

Advantest newly established the Sustainable Management Promotion Working Group (SMWG) in FY2020. With the Group CEO as the general leader, and strategic managers and global leaders (executive officers) assigned to E, S, and G, the SMWG is composed of managers of each Business Unit, Functional Unit, and Regional Unit. The SMWG identifies and evaluates issues related to climate change. Goals and priority measures are summarized in the ESG Action Plan 2021-2023, which promotes specific activities. The implementation status of the ESG Action Plan 2021-2023 is reported to the Executive Management Committee and the Board of Directors twice a year for discussion and assessment. In addition, the SMWG manages company-wide risk by sharing information in a timely and appropriate manner with other committees in the company's corporate governance system.

#### **Strategy**

Advantest has conducted scenario analysis to consider strategies for adapting to events predicted to occur in the future due to climate change. We began by referring to the Shared Socioeconomic Pathways (SSP) 1-1.9, 1-2.6, and 5-8.5, greenhouse gas emissions scenarios that cover the range of plausible emissions futures, of the United Nations Intergovernmental Panel on Climate Change (IPCC) Sixth

Assessment Report and NZE (Net Zero Emissions by 2050 scenario) and APS (Announced Pledges Scenario) of the International Energy Agency (IEA). We identified the risks that can occur by 2050, which will have a particularly large financial impact on our business, including upstream and downstream of the value chain, and considered the 1.5-degrees/well below 2-degrees Celsius and the 4-degrees Celsius warming scenarios.

#### 1.5-degrees/well below 2-degrees Celsius warming scenario:

Under the 1.5-degrees/well below 2-degrees Celsius framework, we assume that climate regulations, such as the introduction of carbon pricing, would be strengthened, helping to achieve Net Zero.

We also expect that companies' responses to Net Zero policies will have a greater impact on the decisions of customers and investors, and that insufficient response will increase transition risks, such as loss of customers and increased reputational risk. On another front, in a low-carbon economy, the demand for semiconductors will increase substantially, leading to an anticipated expansion of our business opportunities, as well as greater adoption of renewable energy and products that contribute to Net Zero targets, such as electric vehicles.

Given that climate change is already thought to be affecting weather events and natural disasters even today, where temperatures are 1.1-degrees Celsius higher than in the pre-industrial era, we predict that physical risks could occur even if the temperature increase is limited to less than 1.5-degrees/well below 2-degrees Celsius. However, the physical risks are predicted to be relatively low compared to the 4-degrees Celsius warming scenario.

#### 4-degrees Celsius warming scenario:

We assume that climate change countermeasures would not be strengthened and that no progress will be made toward Net Zero. Therefore, we assume that the transition risk is low.

We also assume that we may be physically affected in an acute or chronic manner by the effects of climate change such as the intensification of extreme weather events and severe, frequent natural disasters, which will have a greater impact on our supply chains, production lines, and logistics. In addition, it is expected that significant funds will be required for adaptation measures to cope with and restore the situation in the event of possible physical effects.

#### Assumed risks in the 1.5-degrees/well below 2-degrees Celsius scenario

	Category	Major risks	Response/strategy	Time axis
	Policies and regulations	Increased business costs due to laws and regulations (Carbon tax / chemical substances)	g   1	
Transition	Technology and market	Loss of sales opportunities due to delays in technological development (Energy saving technology, test technology for new semiconductors is yet to be implemented)	Further energy-saving performance (low power and compact sizes) alongside improvements in testing performance Development of new testing methods and testing devices Generating human resources for next-generation energy-saving research and development	Short- to mid-term
	Reputation	Decrease in reputation among stakeholders (due to delays in GHG emissions reduction plans)	Promotion of ESG management (achievement of ESG Action Plan 2021-2023 targets)	Short- to mid-term
Physical effects	Acute/chronic events	Disruption of the supply chain due to large-scale typhoons and torrential rainfall	•Response based on the business continuity plan	Short-, mid-, and long-term

#### Assumed risks in the 4-degrees Celsius scenario

	Category	Major risks	Response/strategy	Time axis
Physical effects	Acute/chronic events	Disruption of the supply chain due to large-scale typhoons and torrential rainfall	•Response based on the business continuity plan	Short-, mid-, and long-term

## Climate change risks and opportunities

To respond to the effects of climate change, climate change risks and opportunities were deliberated under the TCFD categories. These risks and opportunities were assessed according to their priority and likely impact, and were categorized into time spans of "short-term (now until 2027)",

"mid-term (now until 2030)", and "long-term (now until 2050)".

#### Risks related to climate change

Two scenarios described in the TCFD categories were examined regarding business risks related to climate change.

- (1)"Risks related to the transition to a decarbonized society" and "risks related to the physical effects of climate change", which occur mainly in the 1.5-degrees/well below 2-degrees Celsius scenario
- (2) "Risks related to the physical effects of climate change", which occur in the 4-degrees Celsius scenario.

#### Climate change opportunities

While the market is expected to continue to expand based on the semiconductor long-term forecast through 2030, the market for semiconductor test equipment is also expected to arow.

Amidst expectations of further semiconductor market growth, which is expected to be driven not only by climate change, but also by various factors such as economic growth and GDP growth in each country, Advantest has laid out direct business opportunities resulting from climate change as follows.

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Semiconductors will contribute to Net Zero, which calls for stringent climate change countermeasures to be imposed. We can assume that the quantity of manufactured semiconductors will continue to grow in the future due to factors such as the expansion in semiconductor demand accompanying the digital transformation. Meanwhile, the quality and quantity of semiconductor testing will increase in hand with the sophistication and technological evolution of semiconductors. It is thought that demand for semiconductor test will increase because such demand will be multiplied by the two factors of enhanced test content per chip and the increase in the physical quantity of semiconductors, and so Advantest recognizes the Net Zero movement to be an opportunity presented by climate change.

Advantest will make investments to achieve the necessary technological advancements, such as in research and development and in developing the next generation of human resources, as part of our efforts to contribute to Net Zero through semiconductor test and product development of new semiconductor technologies.

#### Risk management

At Advantest, we consider factors that may hinder business management to be risks and have established a company-wide risk management system. Management risks posed by climate change are also managed within this system. With the support of the SMWG, we analyze and evaluate urgent and anticipated risks posed by climate change. Using the company-wide risk management system that we have already established, we implement countermeasures to avoid and mitigate those risks to ensure continuity of our business activities in the face of adversity. The SMWG makes timely decisions, and can launch a Task Forces consolidating efforts from related departments to rapidly tackle risks or opportunities, which may be recognized as particularly critical.

#### Metrics and targets

The metrics and targets for measures taken in respect to risks and opportunities brought about by climate change are managed by the ESG Action Plan 2021-2023. The achievement status of the ESG Action Plan 2021-2023 is reported to the Executive Management Committee and the Board of Directors twice a year for discussion and evaluation. Based on their evaluation, the SMWG will review and update the indicators and goals of the ESG Action Plan 2021-2023.

As our mid-term climate change countermeasure target, Advantest has set a goal to reduce greenhouse gas emissions as covered in Scopes 1 and 2 by 60% by FY2030 compared to FY2018, and to reduce greenhouse gas emissions covered in Scope 3 by 15% by FY2030 compared to FY2018. In addition, our long-term target is to achieve net-zero greenhouse gas emissions in Scopes 1 and 2 by FY2050. These goals have been approved by the Science Based Targets Initiative (SBTi), acknowledging that our greenhouse gas reduction targets are based on scientific evidence. While we are making steady progress in reducing emissions from Scope 1 and 2 through the adoption of renewable energy and other measures, progress on Scope 3 is lagging behind our target as of FY2022 due to a significant increase in sales compared to our expectations at the time the target was set. We will further strengthen our efforts to develop products with lower CO2 emissions and promote collaboration throughout the value chain, aiming to achieve our emission reduction targets.

### Climate change-related opportunities

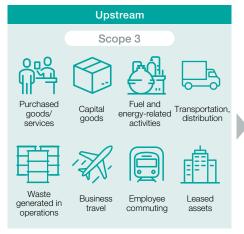
cumate diange related opportunities								
Category	Category Major opportunities Response/strategy		Time axis					
Products & services/ market	Growth in test demand outpacing market growth for core semiconductors where energy efficiency is important	Further energy-saving performance (low power and compact sizes) alongside improvements in testing performance     Development of new testing methods and testing devices	Short- to mid-term					
Products & services/ market	New test demand introduced by power semiconductors, which are required by the final demands such as EV	•Development of new testing methods and testing devices	Short- to mid-term					
Products & services/ market	Sales growth by providing green products	•Introduction of energy-efficient products based on the ESG Action Plan 2021-2023 and steady implementation of the energy-saving plan	Short- to mid-term					

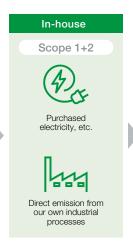
## Climate change risks and opportunities

When addressing climate change, the efforts of individual companies alone may be of limited benefit. Activities that involve entire value chains or industry groups are necessary. The Advantest Group is proactively deploying measures to reduce our environmental footprint in the medium to long term throughout the value chain with the goal of achieving our CO2 emission reduction targets. In our entire value chain, Scope 3 "Category 1 (C1): Purchased goods/services " and "Category

11 (C11): Usage of products" account for the majority of CO<sub>2</sub> emissions. In addition to CO<sub>2</sub> (Scope 1+2) emissions reduction, we are promoting CO<sub>2</sub> emissions reduction in categories 1 and 11 as a priority item for the environmental targets in our ESG Action Plan. In terms of measures related to these priority items, we launched a task force to promote CO2 emissions reduction activities in FY2021. We are accelerating CO<sub>2</sub> emissions reduction activities throughout our value chain, aiming to achieve the SBTi certification targets for Scope 1+2 and Scope 3.

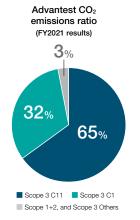
#### CO<sub>2</sub> Emissions in Advantest's Supply Chain







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Scope3 C11 (Usage od Products) Scope3 C1 (Purchased products/services) Scone1+2+Scone3 (Others including emissions our industrial processes)

### Task Force to Promote CO<sub>2</sub> **Emissions Reduction Activities**

Task Force		What it affects	Details of Activities
TF1		Scope 3 C11 Usage of products	CO <sub>2</sub> emissions reduction in product development
TF2		Scope 3 C1 Purchased products /services	CO <sub>2</sub> emissions reduction through cooperation with our business partners
TF3		Scope 3 C11 Usage of products	CO <sub>2</sub> emissions reduction through cooperation with our customers
TF4	By Charles	Scope 1+2 Direct emissions from our industrial processes such as purchased electricity	Reduction of CO <sub>2</sub> emissions from business activities through the introduction of energy-saving equipment and renewable energy

#### Task Force 1: CO<sub>2</sub> Emissions Reduction in **Product Development (Scope 3 Category 11)**

Key Issue	Goal	KPI		2021	2022	2023	2030
Value chain	Reduce CO <sub>2</sub> - equivalent emissions	Intensity reduction rate	Target Value	Calculation basic		20%	50%
(Scope 3)	(basic unit) per test by 50% by 2030	(Compared to FY2018)	Results	Calculation basic		NA	NA

Task Force 1 will collaborate with our R&D departments worldwide to promote the reduction of CO2 emissions through the development of next-generation products with low power consumption and high efficiency. Specifically, we aim to reduce CO<sub>2</sub> emissions per test (basic unit) from our products during utilization at our customers' sites by 50% by FY2030. Our Scope 3 "Category 11: Use of products" accounts for the largest amount of CO2 emissions, accounting for 65% of the entire value chain. Reducing these individual CO2 emissions is essential for reducing CO2 emissions throughout our value chain. The amount of CO2 emissions from the use of our products is significantly affected by market fluctuations such as sales. We will contribute to reducing CO2 emissions through our products by setting targets for reducing emissions per unit of production that are linked to our medium- to long-term business plans, and reviewing them annually.

# Task Force 2: CO<sub>2</sub> Emissions Reduction Through Cooperation with Business Partners (Scope 3 Category 1)

Key Issue	Goal	KPI		2021	2022	2023	2030
Value chain	Promote the use of renewable energy by	Number of suppliers who	Target Value	10	20	40	TBD (*)
(Scope 3)	suppliers and contractors	have introduced renewable energy	Results	12	22	NA	NA

(\*)Targets for key future suppliers based on research

Task Force 2 collaborates with procurement departments to promote the use of renewable energy by suppliers aiming to reduce their CO<sub>2</sub> emissions. Specifically, we intend to increase the number of our suppliers who have introduced renewable energy to 40 by FY2023. We ask our key suppliers to respond to our "Supply Chain CSR Questionnaire" once a year. From FY2021, we added questions on renewable energy sourcing status and greenhouse gas emissions, enhancing our questionnaires to gather more information on suppliers' efforts to address climate change. This enables us to not only grasp our suppliers' renewable energy sourcing rates, but also obtain an understanding of the necessity and importance of reducing greenhouse gas emissions through individual feedback based on the analysis and evaluation of the questionnaire results. We will continue to promote the use of renewable energy by our suppliers and contribute to the reduction of CO2 throughout the supply chain.

# Task Force 3: CO<sub>2</sub> Emissions Reduction Through Collaboration with Customers (Scope 3 Category 11)

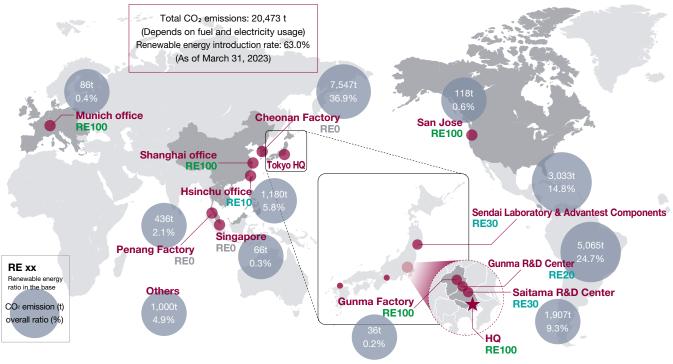
Task Force 3 works along with our sales departments to promote the reduction of CO<sub>2</sub> emissions through the collaboration with our customers. We ask our customers to respond to a questionnaire on their policies and goals regarding climate change, including their requests and expectations for Advantest as their supplier. Based on this information, we will clarify the role that we should play and the issues that should be addressed in our strategies, and reflect them in our ESG activities. We aim to understand our customers' policies and

targets for climate change and contribute to the achievement of their goals as a member of the supply chain.

# Task Force 4: Reduction of CO<sub>2</sub> Emissions in Business Activities Through Adoption of Energy-Saving Equipment and Renewable Energy (Scope 1+2)

Key Issue	Goal	KPI		2021	2022	2023	2030
Climate change (Scope 1+2)	Reducing GHG emissions from business activities by	GHG emissions	Target Value	35%	38%	40%	60%
	60% by 2030 (compared to FY2018) reduction rate	Results	40%	46%	NA	NA	
	Achieve a company- wide renewable	Renewable	Target Value	50%	53%	55%	70%
	energy introduction rate of 70% by 2030 in	energy introduction rate	Results	54%	63%	NA	NA

Task Force 4 will promote a 60% reduction in CO<sub>2</sub> emissions from the Advantest Group's business activities by FY2030 (compared to FY2018) through the adoption of energy-saving equipment and renewable energy. We also aim to increase our renewable energy sourcing rate to 70% by FY2030. In FY2022, we newly introduced renewable sources at our locations in China and Taiwan, as well as at our headquarters, our Sendai Factory and Laboratory, and Advantest Components in Japan. We will continue to contribute to the reduction of CO<sub>2</sub> emissions generated by our own activities by reducing GHG emissions from our business activities and promoting the introduction of renewable sourcing.



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## **ESG Education**

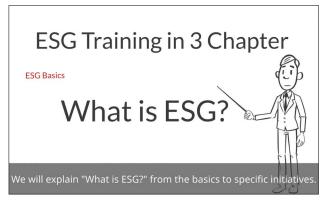
Since 2022, the Advantest Group has provided an ESG education program including Environment (E), Society (S), and Governance (G) topics. In addition, we offer our in-house social networking platform, "My LIFE.ON.", as a place for sharing individual employees' efforts worldwide.

FY2022: General Environmental Education Attendance Status

	Targeted number of employees	Number of participants	Attendance rate
Domestic	2,767	2,567	92.8
Overseas bases	3,556	2,760	77.6
Group Total	6,323	5,328	84.3

#### **Initiative to Promote Understanding Using Videos**

To enhance the sustainability of Advantest and the planet, we have established "sustainability through promotion of ESG" at the foundation of our corporate philosophical system, The Advantest Way, aiming to improve our own sustainability and help to bring about a sustainable world. Our ESG Basic Policy



A screenshot of the educational video

provides a framework for ESG initiatives throughout the company, and we have formulated an ESG Action Plan 2021-2023 for its implementation. The ISO14001 management program is used as the basis for our commitment to our goals. Based on this policy, our general environmental education program, formerly conducted under the certification of ISO14001, was renewed as an ESG education program in 2022.

Since a broader understanding of the content is required for this new ESG education program, we made it possible for employees to learn the content in videos, with three steps: "Chapter 1 ESG Basics", "Chapter 2 Climate Change and Human Rights", and "Chapter 3 Sustainability Initiatives". All videos make use of narrations and animation, allowing employees to internalize ESG in an easy-to-understand manner.

#### **Advantest's Biotope Contributes to Resource** Recycling

In 2001, Advantest established a biotope at our Gunma R&D Center with the aim of helping to recreate the original, natural landscape of the Kanto Plain, a landscape that is being lost to development. This biotope is the largest of its kind established by any private company in Japan. Since then, over the past 20 years, under the guidance of Gunma University, we have been playing an important role in biodiversity conservation by protecting and nurturing endangered plants and investigating CO<sub>2</sub> fixation speed in our biotope forests.

In 2022, we dredged the pond in our biotope and made fertilizer from the mud for use at our in-house farm. Generally, periodic dredging of the pond is necessary as mud accumulates on the bottom and adversely affects the water quality if left unattended. Pond water containing bottom mud is sucked up with a special pump, and a calcium-based flocculation agent is added, separating water from the mud. Once separated, it is dewatered, resulting in nutrient-rich, silky soil. The clean water is then returned to the pond. Since there is no need to drain the pond, this contributes to biodiversity conservation without harming riparian flora and fauna. Normally,

bottom mud is treated as industrial waste, so converting it into fertilizer helps to reduce waste.





Biotope pond

Dredaina the pond

#### Participation in the 30by30 Alliance for Biodiversity

Since April 2022, Advantest has been a member of the 30by30 Alliance for Biodiversity, under the leadership of the Ministry of the Environment of Japan, which is committed to conserving or protecting at least 30% of Japan's national land and sea areas by 2030.



## Social Initiatives

Advantest proactively implements measures to solve social issues throughout our business, based on The Advantest Way and our corporate mission statement, "Enabling Leading-edge Technologies." Our ESG Basic Policy, formulated in 2021, sets forth our social responsibility as a global company and our commitments to our stakeholders. Meanwhile, our ESG Action Plan (2021-2023) describes specific themes, goals, and KPIs to support and promote company-wide activities and to disclose information.

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## Respect for Human Rights

#### **Advantest Group Human Rights Policy**

The Advantest Group contributes to humanity's safe, secure and comfortable existence by "Enabling Leading-edge Technologies." We recognize that the human rights of all the people we touch must be protected in our global business activities. This is stipulated in The Advantest Way, and lays the foundation of all our activities. In July 2021, the Advantest Group Human Rights Policy was formulated based on The Advantest Way. It is signed by the Group CEO and disclosed to the public as a statement of the Advantest Group's commitment to our responsibility to respect human rights. This Human Rights Policy applies to all Advantest Group executives and employees, including all permanent, contract, and temporary employees. In addition, in cases where our suppliers or other business partners may have contributed to any action with adverse impacts on human rights, which is directly linked to the Advantest Group's business activities, we will work on encouraging respect for human rights through dialogue and consultation to ensure that this policy is understood.



Please refer to the following URL for the Advantest Group Human Rights Policy.

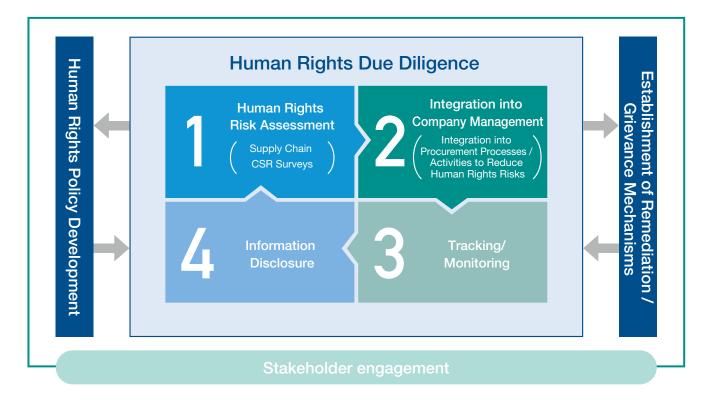
https://www.advantest.com/sustainability/society/hrpolicy.html



#### **Human Rights Due Diligence in the Supply Chain** Integration into the Procurement Process

With the aim of incorporating human rights due diligence into our procurement process, we disclose a clear procurement

policy to our suppliers, who are important members of our value chain, and provide guidance on human rights, labor, and health and safety in the "Advantest CSR Procurement Guidebook."



#### **Assessment and Monitoring**

As part of our supply chain due diligence, Advantest conducts a CSR Questionnaire for business partners who account for 85% of the transaction value of all Advantest Group companies every year. The contents of the questionnaire mainly refer to the "Supply Chain CSR Promotion Guidebook" in line with international norms and initiatives such as the RBA Code of Conduct as well as reports on the introduction of renewable energy and reduction of greenhouse gas emissions as a response to climate change. In FY2022, we received responses from all 56 companies we contacted. Although no serious risks related to human rights were found at this time, we should keep in mind that the entire supply chain should address social issues. In aiming to do so, we not only provide materials summarizing the results of the questionnaire for each business partner, but also supply feedback on points that were highly evaluated as well as requests for improvement, and hold individual seminars for business partners on specific themes.

#### **Responsible Mineral Procurement**

Although Advantest is not subject to Section 1502 of the US Dodd-Frank Wall Street Reform & Consumer Protection Act (Conflict Minerals Clause), we are voluntarily addressing the issue of conflict minerals. Since 2013. Advantest has been implementing an annual mineral procurement survey of our business partners using the Conflict Minerals Reporting Template (CMRT) tool developed by the Responsible Minerals Initiative (RMI)\*. In FY2022, we conducted a survey of our business partners and verified the smelters/refiners listed on the CMRT with the information disclosed by the RMI. In total, the ratio of conformant smelters was 65.2%.

We will continue to seek cooperation from our business partners who we are yet to confirm. In FY2023, we will enhance our system to aim for a 100% conflict-mineral-free supply chain.

Survey (CMRT) collection rate	99%
Total number of refineries/smelters	351
Number of conformant certified refiners/smelters	229
Number or refineries/smelters without conformant certification (including pending refineries/smelters)	122

#### **Process for Relief**

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In line with the United Nations Guiding Principles on Business and Human Rights, we have established a dedicated contact/ reporting window for suppliers to receive complaints and consultations regarding human rights, which is available on our webpage. There were no complaints files (no cases) in FY2022.

#### **Occupational Health and Safety**

Advantest Group recognizes the importance of Health and Safety (H&S) management, and every year we convene a "Health and Safety Committee Meeting," which decides the health and safety direction and policy for the whole Group. Our approach to health and safety is based on the main activity themes decided on at this meeting, upon which the health and safety committees at each location set their annual targets and plans. We strengthen each location's health and safety activities by sharing information about relevant activities. The industrial accident rate (frequency rate) in whole group in FY2022 was 0.5 whereas the industry average was approximately 2.0 (according to the Ministry of Health, Labor and Welfare).

Advantest has obtained ISO45001 certification, an international standard for occupational health and safety management systems, at Gunma Factory, our main factory. Going forward, Advantest will continue its efforts to improve our working environment and strive to create comfortable workplaces.



#### Support for Ukraine ~Germany (AEG): Refugee Shelter~

The Advantest Group's overseas subsidiaries are engaged in dialogues with local communities and are implementing human rights initiatives tailored to the social climates in each

After the outbreak of war in Ukraine in February 2022 many women, children and older people fled to Germany with only few belongings and no money. In light of these circumstances, Advantest's German subsidiary, Advantest Europe GmbH, has set up an in-house "Ukraine Task Force Team," which is carrying out volunteer activities such as providing accommodation, clothes, and hygiene-related goods to refugees from Ukraine via local aid organizations in Europe. AEG provided used laptops to Freundeskreis Degerloch, an organization that helps refugees. For refugees laptops can really make a difference allowing them access to schooling material and empowering them to prepare diverse applications (job, recognition of qualifications, flat etc.) they need to submit. While making sure that the donated laptops were being utilized, AEG further provided internet access through mobile Wi-Fi hotspot and offered user support to adapt the laptops to their needs. We will continue to contribute to a society in which everyone can enjoy the right to learn freely and live conveniently while leveraging IT capabilities.



Advantest has donated a total of 90 million yen to various international organizations in Japan, the United States, Germany, and Singapore to provide humanitarian assistance to those who are experiencing difficulties due to the situation in Ukraine. Advantest was awarded the Medal with Dark Blue Ribbon by the Japan Committee for UNICEF (United Nations Children's Fund) for our donation to UNICEF, to assist with humanitarian aid for Ukraine.

<sup>\*</sup> RMI: Responsible Minerals Initiative

## **Employee Engagement**



## Inculcation and Evolution of Our INTEGRITY Core Values

In 2019, Advantest Group launched a corporate culture transformation initiative, which has been steadily evolving ever since. The nine values of INTEGRITY, (Innovation, No. 1, Trust, Empowerment, Global, Respect, Inclusion & Diversity, Teamwork, and Yes) have begun to take root in our daily lives. We will continue to further inculcate and evolve these nine values.

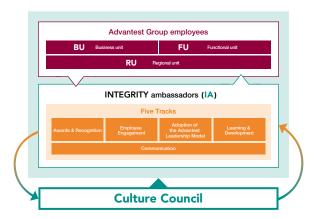
In 2022, we introduced "The INTEGRITY Awards." The INTEGRITY Awards is a peer-to-peer program that offers Advantest employees worldwide a platform to recognize and express appreciation for colleagues who have demonstrated the Advantest's Core Values in exceptional ways and who contributed significantly to the transformation of our corporate culture. Nominations are solicited and selected on a quarterly basis, and the selected employees are nominated for the President's Awards, which are presented on an annual basis. In FY2022, a total of 400 cases named 1,203 nominees for the INTEGRITY Awards. Among them, three employees were chosen and commended in the INTEGRITY category of the President's Awards.

The Advantest Group continues to pursue a corporate culture where the contributions and values of individual employees are recognized and respected by showing appreciation for peers. These company-wide activities have penetrated down to the level of each organization and team, generating self-directed activities not only within each organization, but also across multiple organizations.

In 2022, to further promote activities related to INTEGRITY, a "Culture Council" consisting of President Yoshida and several executive officers was established, and representatives nominated by each business unit, functional unit, and regional unit were appointed as "INTEGRITY Ambassadors." The INTEGRITY ambassadors are 35 enthusiastic employees (as of August 2023), selected from seven countries and regions. The INTEGRITY Ambassador Community is made up of Five Tracks focused on Awards & Recognition, Employee Engagement, the adoption of the Advantest Leadership Model, Learning & Development, and Communication. They are working to further implement INTEGRITY throughout the Advantest Group.

Workshop held by INTEGRITY ambassadors and Culture Council (At Advantest headquarters in Tokyo, December 2022)

#### **INTEGRITY Promotion Structure:**





2019

Revision

Social Initiatives

# Example of INTEGRITY Activity-1: Cross 1-on-1 Meeting

"Cross 1-on-1" is a little different from the conventional 1-on-1, referring to a place where mentors and mentees can talk one-on-one across organizational boundaries. Mentees are able to gain insights that cannot be obtained from their own departments or daily work alone, which fosters their potential. Mentors also have the opportunity to improve their coaching skills, which is one of the most important elements of our leadership model. What started with just 10 participants in the ATE Business Group (Japan) in 2020 has increased over time with each round of 1-on-1 activity. This activity was selected as one of the President's Award winners of the INTEGRITY Award in FY2021, in recognition of its aim to implement the EMPOWERMENT aspect of INTEGRITY core values, and contribution to expanding our internal network of communication. By the seventh session of FY2022, the activity had more than 140 participants.

Example of INTEGRITY
Activity-2:
Thank-You Letter

This activity started at a workshop on "designing communication processes to engage with team members" held for Field Service managers in 2022. As an output from this workshop, "Search for Makélélé" kicked off in the Field Service Group.

Claude Makélélé was a famous football player who played in the French national team, whose artful defensive play devoted to assisting other players in the team contributed to many victories. In our daily work, we also have "unsung heroes who diligently play an important, but sometimes overlooked role." These could be people who deal with gray areas (where roles between departments are ambiguous), or people who take the initiative in doing work that other people dislike. The idea was that we could and should express our gratitude to people like Makelele, and by doing so, we could motivate them. Some of the teams developed a "search for Makélélé" with the goal of sending our Makélélés thank-you letters. When we expanded the range of recipients of the letters, not only within the company, but also to subcontractors, we received warmly appreciative responses, and the "circle of happiness" expanded, with one subcontractor employee even winning an internal award.

Example of INTEGRITY Activity-3:

INTEGRITY With New Members of Integrated Companies As of January 1, 2023, R&D Altanova (RDA) was integrated into the Advantest Group. There was much to be done, including officially consolidating RDA onto the Advantest payroll, benefits and other platforms, but also RDA employees in the US, Pakistan and Costa Rica needed to be inducted into the Advantest Way and learn our INTEGRITY Core Values. The HR team of Advantest America held a total of 17 Core Values Workshops for RDA US, Taiwan, Pakistan, and Costa Rica, including 11 onsite sessions as well as six virtual sessions, to share our values with these new members of the Advantest Group. At the end of these workshops, each participant received the official Core Values Certificate of Completion.

The same procedure is being conducted for Shin Puu Technology Co., Ltd. in Taiwan, whose acquisition we completed in April 2023.



Employees of R&D Altanova, who newly joined Advantest Group.

The journey to inculcate the Advantest Group's corporate culture, which started in 2019 by introducing our INTEGRITY Core Values, will continue onwards.

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## **Investment in Human Capital**

Key Issue	Executive	Goal	KPI	20	)21	20	22	2023	2030
Key Issue	in charge	Goal	NPI	Target	Results	Target	Results	Tar	get
ESG management at Supply Chain	CPO	Share and solve/mitigate ESG issues (risk management, human rights/occupational safety, environment, fair trade, compliance, etc.)	Due diligence implementation rate for major customers	90%	100%	95%	100%	100%	100%
		Fair treatment in gender	Female manager ratio	9.0%	9.6%	10.0%	9.0%	10.5%	17.0%
	СНО	Edification and practice of human rights	Participation rate of educational training	100%	99.5%	100%	84%	100%	100%
Diversity, protection, and respect for human rights		Work-life halance	Return-to-work rate after maternity leave (JPN)	100%	100%	100%	94%	100%	100%
rights		Work-life balance	Exercise rate of childcare leave by males (JPN)	12%	16%	20%	21%	25%	50%
	con, and or human or	Percentage of suppliers confirmed to be free of conflict minerals*	100%	63%	100%	65%	100%	100%	
Customer satisfaction,	CCRO	Raise customer satisfaction under New Normal circumstances	Ranking of TechInsights customer satisfaction survey	1st	1st	1st	1st	1st	1st
employee engagement	СНО	Edification and improvement of attractive corporate culture	Score of Gallup survey	3.5	3.6	Survey not conducted	Survey not conducted	3.8	4.1
		Maintaining and enhancing occupational safety and health	Occupational accident rate (frequency rate)	0.00	0.35	0.00	0.47	0.00	0.00
Investing in humar resources	CHO	Promotion of health management	To be selected in White 500 (JPN)	selected	selected	selected	selected	selected	selected
		Employee capacity building	Education and training expenses (100MY)	N/A	3.9	5.0	4.8	6.0	10.0

<sup>\*</sup> KPIs are changed according to actual activities

Our understanding of human capital represents a shift from thinking about people as something the company uses to thinking about them as something we invest in. We must secure the necessary human capital in response to changes in our business environment, and invest in it to help our employees become the sources of future value creation.

In 2023, the Advantest Group established our "Basic Policy Regarding Human Capital Development" and "Internal Environment Development Policy". The Basic Policy Regarding Human Capital Development emphasizes the following points. Advantest regards employees as human capital essential for its sustainable growth. Advantest strongly believes developing employees as human capital indicates an investment in human capital, and that the "individual strength" enhanced through this development and the "organizational strength" utilizing enhanced individual strengths are the two "wheels" that drive employee engagement and become the sources of future value creation. Accordingly, Advantest will proactively, continually, and fairly implement measures to develop human capital within the development framework. Our Internal Environment Development Policy defines that the Advantest Way is the cornerstone of our globally unified team of diverse employees, and that Advantest accepts, encourages, and supports diverse workstyles which enable every employee to achieve a good work-life balance.



#### Policies Regarding Human Capital:

https://www.advantest.com/sustainability/society/hdpolicy.html



#### **Education and Training Programs that Foster Individual Strength**

We place particular emphasis on education and training, which are important elements of investing in human capital, as they are directly linked to individual strengths. With this in mind, Advantest has established the Advantest Development Framework, which defines the fundamental skills, advanced skills, manager skills, and senior management skills that Advantest seeks for employees to acquire. We provide educational programs and training courses to support the development of the required abilities based on this Framework.

P.29 Human Capital: CHO Message

#### **Expansion of e-Learning Platforms**

The e-learning platform implemented throughout the Advantest Group offers multiple courses rich in content recommended by the company, with various difficulty levels. Contents range from Microsoft Office tools tutorials to time management, coaching, communication, and determining team vision and strategies. Employees can immediately put this hands-on training into use in their work.

#### **Initiatives to Promote Female Employees**

Advantest has set Inclusion and Diversity as one of our Core Values. We believe that creating comfortable and inclusive workplace environments and instilling working practices that maximize employee capabilities while balancing work and home is imperative

As of March 2023, the percentage of female employees to total employees is 21.2% (20.8% in the previous fiscal year), and the percentage of female managers to total managers is 9.0% (9.6% in the previous fiscal year). For Advantest Corporation (non-consolidated), the percentage of female employees is 16.1% (16.5% in the previous fiscal year), and the percentage of female managers is 3.6% (3.4% in the previous fiscal year). Although many indices show improvement over the previous fiscal year, increasing the number of female employees and managers still remains an urgent task.

Advantest will move forward with initiatives to raise the female employee ratio and establish systems for long-term employment aimed at increasing the ratio of female employees in management positions.

Social Initiatives

## Work-Life Balance Programs for Childcare and Caregiving

Advantest proactively incorporates systems that enable employees to work comfortably over many years. At Advantest, pregnant employees can receive 100% compensation during prenatal checkups and pregnancy complications leave, and are offered the choice to work shorter hours if so instructed by a doctor. Advantest offers childcare leave and caregiving leave that exceeds legal standards. Other leave programs are also widely used, such as the accumulated holiday program, which can be taken for a variety of reasons, by fathers as well as mothers, including for childbirth, childcare, fertility treatment, and other caregiving responsibilities.

Furthermore, Advantest offers shorter work hours for employees who are raising children or looking after ill relations. Shorter working hours for childcare can be used until the employee's youngest child reaches the sixth grade, and this program is currently being used by many parents. There is no restriction on the period in which employees can work short hours in order to care for ill family members, so that employees can best balance their jobs with their home lives. As there are cases in which employees resign their jobs during life transitions, Advantest has established a re-employment program for employees who meet certain criteria.

It should be noted that re-employment of female employees following childcare leave as a result of these efforts was 94% in FY2022. We are also working on support for fathers, which includes the provision of personal consultations for male employees with children and their supervisors. In FY2021, we aimed to enhance our support system, which began by asking our eligible male employees if they intended to take childcare leave. In addition, starting in FY2022, we have established a childcare leave subsidy of up to four weeks for employees who take childcare leave within eight weeks of the birth of their child.

As a result of these efforts, the ratio of male employees taking childcare leave in FY2021 was 21%, a significant increase from 16% in the previous fiscal year. We will continue to implement proactive initiatives to encourage more men to use our childcare leave systems.

#### **Promotion of Health and Productivity Management**

Advantest formulated a Declaration of Health and Productivity Management Policy in September 2019, embodying our focus on initiatives for health and productivity. Top management sent out the message that employee health should be made a priority, as

Advantest continues to promote health check-ups, boost the implementation rate of specified health guidance, and introduce a health portal site, along with various other activities that directly affect employee health. These activities include online dieting/smoking cessation programs, encouraging exercise using a mobile app-based health promotion, and health literacy training. As a result of these efforts, Advantest was once again recognized under the 2023 Certified Health & Productivity Management Outstanding Organizations Recognition Program, which is jointly implemented by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi (Japan Health Council), as one of the organizations in the large enterprise category. At the same time, METI certified Advantest as one of its "White 500"—the top 500 corporations recognized under the program—for the third consecutive year. This year for the first time, all seven of Advantest's domestic subsidiaries were certified.

#### **Declaration of HPM Policy**

In order to realize Advantest's mission, we will strive to create a workplace



where every employee can work in optimal physical and mental health, and to contribute to humanity's sustainable future as a corporate citizen.

## Dialog with Stakeholders

#### **Sustainability Briefing Held for the First Time**

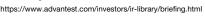
In March 2023, Advantest held a Sustainability Briefing for the first time. We have been making efforts to enhance the disclosure of non-financial information through the Integrated Annual Report and Sustainability Data Book. However, we decided to hold this event recognizing the need to provide an opportunity for a more organic and three-dimensional understanding of Advantest, with regards to topics of great interest to the capital market.

The main themes of the briefing were "management structure" and "human capital," which are key elements in the company's medium- to long-term growth. Headed by Group CEO Yoshida, Co-CSO (Chief Strategy Officer) Mihashi, and CHO (Chief Human Capital Officer) Keith Hardwick, the briefing featured presentations and a question and answer session. Approximately 90 people, including some from overseas, participated in the webinar, covering a wide range of topics including development, human capital for customer support, promotion of diversity including empowerment of women, learning and retention programs and more. Many participants responded favorably to this opportunity.

(\*Job titles are those held by the individuals at the time of the briefing.)



Materials and videos of the Sustainability
Briefing are available on our website.







#### **Development of Semiconductor Human Resources**

In the early 2010s, the Japanese semiconductor industry was in decline due to a long period of stagnant performance. Students were being discouraged from undertaking electronics and engineering studies and finding employment in semiconductor-related companies. Facing this reality, Advantest realized that unless we could build a foundation and acquire human capital for the continued growth of the semiconductor industry, it would be difficult for us to sustain our own growth. That aim drives our support for the Power Device Enabling Association (PDEA), which was established in 2012 in anticipation of growing demand for power devices\*, from the conceptual stage, and we have been working with car manufacturers, electronic device manufacturers, semiconductor manufactures, and public organizations under the auspices of the PDEA over the past 10 years.

When the PDEA launched its "Semiconductor Engineer Career Certification" in 2014, we published "Measuring x Understanding Semiconductor," a series of three textbooks that enables comprehensive study of semiconductor fundamentals, development, manufacturing, testing, and quality assurance, to support people preparing for this examination. Although these materials were mainly aimed at engineers involved in semiconductor design, manufacturing, testing, quality assurance, in recent years, demand from learners in their 20s and 30s is increasing on account of changes in the semiconductor industry environment. The textbooks have also been adopted in special curricula at technical high schools and technical colleges in Kumamoto Prefecture, as well as in the education of new employees at major device manufacturers. Furthermore, these educational materials may enjoy even wider adoption in future, as evidenced by the joint seminars held using "Measuring x Understanding Semiconductor" in cooperation with affiliated organizations such as SEMI Japan, Kitakyushu Foundation for the Advancement of Industry, Science and Technology (FAIS), and Oita LSI Cluster Promotion Council.

Advantest will continue to focus on developing future talent with the aim of continuously developing and building a foundation for the semiconductor industry.

\*Power devices: Also called power semiconductors, used in power converters like inverters. In recent years, these semiconductors have been attracting more and more attention amid increasing interest in environmental technologies such as energy conservation and low power consumption.



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"Measuring × Understanding Semiconductors" Advantest printed the 3 books: Introduction, Applications, and Power Electronics.



Together with registered companies, academic associations, and experts in the related industries, the PDEA promotes awareness-raising activities within the industry by sharing themes for the practical realization of power devices

#### Developing human resources for semiconductors with global industryacademic collaboration

In 2007, Advantest established the Advantest D2T Research Division within the campus of VDEC (the VLSI Design, Education, and Research Center at the University of Tokyo). The Systems Design Lab (d.lab), affiliated with the Graduate School of Engineering at the University of Tokyo, was established in 2019 as a result of reorganization of VDEC, and together with Advantest, it is currently conducting joint research and educational activities aimed at bridging the gap between "design" and "testing".

In June 2023, Advantest established a test engineering course at Arizona State University in collaboration with NXP Semiconductors, a world-class semiconductor manufacturer based in Arizona. USA. Arizona has a significant concentration of semiconductor industry, with many semiconductor manufacturers investing to establish their production bases and wafer-fabs within the state. With Arizona's burgeoning semiconductor industry driving the demand for test engineers, we are aiming to develop semiconductor test personnel with local roots so as to meet these expectations.

## Corporate Governance

## About Advantest's Corporate Governance

Advantest's corporate mission is "Enabling Leading-Edge Technologies." Advantest constantly strives to improve so that we can offer products and services that will satisfy customers around the world, and contribute to the future of society through the development of the most advanced technologies. In accordance with this corporate mission, and in response to our mandate from stakeholders, Advantest emphasizes open, honest and respectful dialogue with all stakeholders at all times, aiming to achieve a sustainable level of business development for the Advantest Group and to enhance corporate value over the mid/long-term. We consistently seek the sources of phenomena to identify their essence and find optimal solutions. To that end, the Advantest Group strives to operate a fair, effective, transparent governance system.

Our Corporate Governance Basic Policy is published on our website:



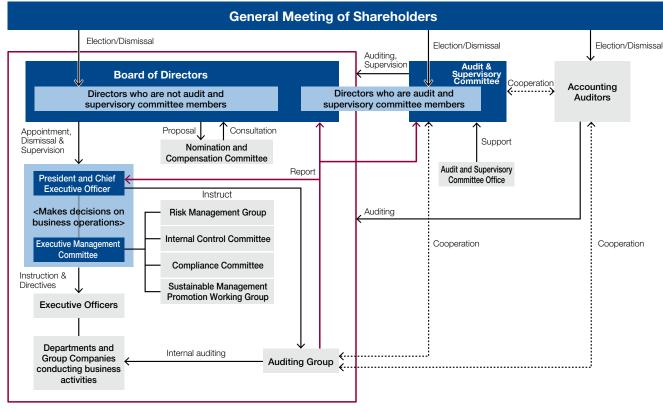
#### Advantest Corporate Governance Policy

https://www.advantest.com/sustainability/governance/pdf/Corporate\_Governance\_Policy\_20210623\_E.pdf



#### Corporate Governance Structure

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#### Initiatives to Strengthen Corporate Governance Structure

2006

 Introduction of executive officer system

2003

• 1st meeting of the Nomination and Compensation Committee

allowance system

Appointment of first

outside directors

- Abolition of retirement
- Appointment of first foreign directors
- A majority of the members of the Nomination and Compensation Committee became outside directors
- First appointment of an outside director as the chair of the Nomination and Compensation Committee

2015

 Transitioned to the "company with audit and supervisory committee" format Abolition of advisor system

2021

- General Review of Executive Compensation System, CxO System
  - Multiple female directors appointed
     Outside directors reach majority of board members
  - 2023
- First appointment of a female director
- Established stock compensation system and reviewed stock option compensation system

2020

2017

2018

## Shareholders' Meeting

Advantest regards the annual General Meeting of Shareholders as an important opportunity for dialogue with shareholders.

The 2023 General Meeting of Shareholders was held in Tokyo for the first time in four years for the convenience of our shareholders. Approximately twice as many shareholders attended as in the previous year. We held the General Meeting of Shareholders at our offices in Gunma from 2020 to 2022 in response to COVID-19 restrictions, but after listening to shareholder wishes, we changed the venue of the meeting to Tokyo.

In addition, following the amendments to the Companies Act, we provided the Notice of Access and the summary of shareholder reference documents in the form of a Convocation Notice, which condensed what used to be a 60-page booklet into just a single A3 sheet of paper. This attempt to minimize the use of paper and ink in consideration of the environment has led to significant cost reductions not only in terms of paper and printing costs, but also in mailing costs. Furthermore, this year's meeting was also livestreamed, enabling shareholders to watch the meeting in real time wherever they were. In addition, in order to enhance dialogue with shareholders, we accepted questions online in advance of the meeting, and also allowed them to message us online during the livestream. Of the questions received in advance and during the livestream, those that were deemed to be of high interest to shareholders were answered during the meetina.

Besides the abovementioned, the following efforts were made to maximize dialogue with our shareholders.

- Holding meeting on a day when fewer other companies were holding their shareholder meetings
- Disclosure of the Convocation notice and Business report at least three weeks prior to the meeting
- Disclosure of the Annual Securities Report prior to the General Meeting of Shareholders
- English translation of the entire Convocation Notice and Annual Securities Report

Going forward, we will continue to hold more open and accessible shareholder meetings that are also environmentally friendly.



For more details on the General Meeting of Shareholders, please see our website:



https://www.advantest.com/investors/shares-and-corporate-bonds/meeting/

### Board of Directors

The Board of Directors of Advantest, as our management decision-making body, makes decisions on significant matters with respect to the management policies and management strategies for the whole Advantest group, and in its capacity to supervise management, it also monitors and supervises Executive Officers in their exercise of their duties. Advantest has strengthened the oversight and supervision functions of the Board of Directors by appointing multiple outside directors. Regular Board of Directors meetings are held once a month and last about 3 to 5 hours, giving directors time to discuss important matters. In addition, Advantest holds off-site meetings where board members discuss mid/long-term issues that cannot be adequately addressed within the time limits of Board of Director meetings. The Board of Directors met 14 times at the office and twice off-site in FY2022, and all members attended all meetings. At the Board of Directors meetings and off-site meetings, directors with a wealth of knowledge and experience expressed their opinions from each point of view on various agendas, and active discussions took place. As of June 27, 2023, the Board of Directors is composed of three executive directors (inside directors), one non-executive director (inside director), and five non-executive directors (outside directors) for a total of 9 members (including Directors who are Audit and Supervisory Committee members). Of these, two directors are non-Japanese, and two are female. In order to maintain seamless communication despite the diversification of our Directors. Advantest has arranged for simultaneous interpretation at the Board of Directors meetings so that Board members can speak freely in

both Japanese and English. Materials and minutes are also translated into English.

#### Composition Ratio of Outside Directors



#### Nationality Diversity on Board of Directors



#### Gender Ratio on Board of directors



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Corporate Governance

#### Major Items Discussed and Reported at Board of Directors Meetings and Off-Site Meetings in FY2022

- The Board of Directors discussed the progress of the Second Mid-Term Management Plan (MTP2), confirmed the importance of growth investments such as M&A and digital transformation, and reviewed the financial model of MTP2.
- Advantest's changing business environment, including changes in the semiconductor market and geopolitical risks caused by US-China friction, was reported on and measures to address the issues were discussed.
- Monthly reports on the current status of sales, profits, inventory levels, cash flow and other relevant factors were made to the Board of Directors to monitor the execution of business operations.
- More effective financing methods were discussed in the agenda of commitment line agreements and long-term borrowing.
- M&As were discussed as growth investments, and the Board decided on the M&A of CREA [Collaudi Elettronici Automatizzati S.r.l.] and Shin Puu Technology Co., Ltd..
- Internal audit reports and compliance reports were made to the Board of Directors twice this year. The reports included reports from Advantest's internal audit system, items pointed out by internal audits, and compliance incidents from helpline notifications.
- IR reports were made to the Board of Directors twice this year, which included the status of communication with investors and investors' awareness of issues.
- IESG reports were made to the Board of Directors twice this year, which included the status of Advantest's climate change initiatives and other ESG initiatives.

## Effectiveness of the Board of Directors

The role of the Board of Directors is to ensure the sustainable development of the Advantest Group and to enhance corporate value over the mid/long-term. In achieving these goals, the Board of Directors receives appropriate advice from outside directors, who serve as points of contact with the outside world, and reflects them in business activities on the executive side. Therefore, we believe that this advice and these responses are essential for improving the effectiveness of the Board of Directors. We are implementing the following initiatives to achieve these goals.

- Carefully document and track issues raised at the Board of Directors meetings. We make sure to implement extensive discussions at the Board of Directors meetings, eliminating leftover topics, and promptly respond to them on the executive side, which is then monitored by the Board of Directors.
- Evaluate the effectiveness of Board of Directors meetings. A questionnaire-based evaluation is conducted as a summary of the year's Board of Directors meetings.

In order to eliminate unresolved discussions at Board of Directors meetings, as well as to ensure swift executive action on items discussed, and Board of Directors monitoring of responses, we document the items raised at Board of Directors meetings. In addition, to summarize the Board of Directors meetings during the year, each director is given a questionnaire to evaluate the effectiveness of the Board of Directors.

## Document Issues Raised at the Board of Directors Meetings

The Board of Directors discusses a variety of important topics, with discussions often exceeding an hour on a single agenda item. However, it is meaningless if this meeting ends with a mere discussion. We believe that corporate value is enhanced only when issues raised at Board of Directors meetings are decisively conveyed to the executive side and promptly addressed. Therefore, the Secretariat of the Board of Directors, under the direction of the President, clearly documents the issues that were pointed out in the discussions at the Board of Directors meetings every month. Relevant divisions are then responsible for considering measures in response to these issues. The status of responses to the issues pointed out is reported by the President at the following month's Board of Directors meeting. This way, we have adopted a system to ensure that discussions at the Board of Directors meetings are reflected by actions taken or resporting made by the executive side.



## **Evaluate the Effectiveness of the Board of Directors Meetings**

In order to evaluate how effective the Board of Directors is at fulfilling its roles and responsibilities, we distribute an "effectiveness evaluation" questionnaire to all directors every year. This helps us analyze the Board's composition, management, and discussion status.

## Results of FY2021 Effectiveness Evaluation & Actions Taken in Response

Our evaluation of the effectiveness of the Board of Directors in FY2021 indicated that more time should be devoted to discussion versus reporting, greater awareness of the external environment was required in reporting to the Board of Directors, and the method of evaluation itself should be reviewed. In response to the above, Advantest implemented the following measures in FY2022.

- We tried to allow more time for discussion at the Board of Directors by asking presenters to use an executive summary and provide a concise statement.
- Regarding the evaluation of the effectiveness of the Board of Directors, the questions have been significantly revised to address the following points:
- whether the Board of Directors was able to appropriately incorporate external knowledge, and
- whether the discussions at the Board of Directors were being utilized by the executive side.

#### FY2022 Changes to the Effectiveness Evaluation

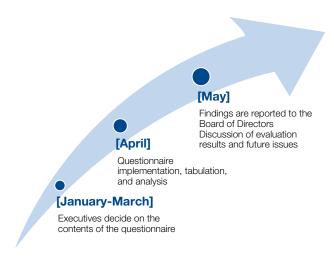
Ever since the effectiveness evaluation questionnaire was conducted in 2015 for the first time, it had consisted of general questions about the composition of the Board of Directors, deliberations, and operation. We have implemented the PDCA cycle of the effectiveness evaluation since 2015 using the above questions, and as a result, certain improvements have been made in the content of operation and deliberation. On the other hand, now that we are in the era of VUCA (Volatility, Uncertainty, Complexity, and Ambiguity), it is essential for us to incorporate external perspectives (social perspectives) in order to enhance our corporate value. Thus, in the effectiveness evaluation for FY2022, we omitted questions on topics that have already achieved a certain level of improvement, and focussed the questionnaire on questions to confirm whether the Board of Directors is able to appropriately incorporate outside knowledge and leverage the discussions at the Board of Directors meetings by the executive side.

#### Results of FY2022 Effectiveness Evaluation

In our FY2022 effectiveness evaluation, we confirmed that each director discusses matters from a different perspective than other members. The company believes that this shows that the diversity of the Board of Directors has been ensured. On the other hand, the following points were raised as improvements to make the Board of Directors more effective.

- Regarding changes in the external environment (changes in the business environment of our company), Advantest management is already accustomed to a certain degree of sensitivity to cycles in the semiconductor testing industry to which our group belongs. On the other hand, it is advisable that the company's sensitivity to other aspects of the external environment (i.e. society, politics, economy, industry in general, etc.) should be enhanced.
- It is preferable that matters to be discussed should be clearly stated in materials reported to the Board of Directors Meeting.

#### Effectiveness evaluation process



#### Opinions from outside directors on FY2022 evaluation of the effectiveness of the Board of Directors

Composition of the Board of Directors	<ul> <li>It is desirable to have people with deep technical/industry expertise.</li> <li>It is desirable to have outside directors who are experienced in cross-border management, business and financial analysis, and understanding of investor expectations and perspectives.</li> <li>The preferred composition of the Board of Directors shall be discussed on an ongoing basis.</li> </ul>
Deliberations and operation of the Board of Directors	<ul> <li>It is desirable to devote more time to discussion on business portfolio strategy.</li> <li>It is desirable to increase sensitivity to changes in society, politics, the economy, and industry in general.</li> <li>Discussion was diverse, drawing on the experience and knowledge of each board member.</li> <li>There is room for further deepening the analysis of our core business, including the expansion of the value chain, and the consideration of measures to be adopted.</li> <li>Succession planning has been sufficiently discussed and examined.</li> </ul>
Response by the Executive Side	<ul> <li>It is desirable if the time spent on discussions could be linked to more concrete results of business activities.</li> <li>Sensitivity to the semiconductor test industry is apparent, but even greater sensitivity to the external environment beyond that (e.g., social, political, economic, general industry, etc.) is desirable.</li> </ul>
Structure to Support the Board of Directors	<ul> <li>The information provided by the Company is sufficient.</li> <li>It is desirable for the off-site meeting to have a smaller meeting agenda that involves more in-depth discussions.</li> <li>It is desirable for the materials reported at the Board of Directors meetings to have issues for discussion clarified.</li> </ul>

## **Audit System**

#### **Audit and Supervisory Committee**

Advantest shifted to an Audit and Supervisory Committee system on June 24, 2015. The Audit and Supervisory Committee consists of one internal director and two outside directors. Yuichi Kurita, an inside director who is also an Audit and Supervisory Committee member, has experience as an officer in charge of corporate planning, finance, and administration of the Company. Sayaka Sumida, an outside director who is also an Audit and Supervisory Committee member, is a certified public accountant with many years of experience working for an auditing corporation. Tomoko Nakada, an outside director who is also an Audit and Supervisory Committee member, has extensive knowledge of legal affairs.

Pursuant to our audit policies, audit plans, priority audit items, allocation of duties, etc., and in coordination with the internal audit division and other relevant departments with jurisdiction over internal control, the Audit and Supervisory Committee members attend important meetings such as Executive Management Committee, Business Plan Meeting, Internal Control Committee, receive reports from Directors. Executive Officers and employees on the performance of their duties, request further explanations as deemed necessary, review important approval-granting documents, and inspect the state of business operations and assets at the head office and other important branch offices. With respect to subsidiaries, they communicate with and exchange information via interviews with directors of the subsidiaries and opinion exchange meetings with corporate auditors of the subsidiaries, and receive business reports from subsidiaries as deemed necessary, and conduct audits of Advantest's main consolidated subsidiaries overseas, and confirm their state of business operations and assets. As a result of these investigations and audit activities, members of the Audit and Supervisory Committee shared our views with the directors and department heads on what we recognized as issues needing feedback.

The Audit and Supervisory Committee appoints full-time members of the Audit and Supervisory Committee to enhance the effectiveness of its auditing and supervisory functions. Outside directors who are members of the Audit and Supervisory Committee attend meetings of the Internal Control Committee and, as necessary, participate in on-site inspections of business divisions conducted by full-time members of the Audit and Supervisory Committee, actively auditing and monitoring the status of business execution at the Company. In FY2022, the Audit and Supervisory Committee met 13 times, All meetings were attended by all Audit and Supervisory Committee

members.

#### **Accounting Auditor**

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Our Accounting Auditor performs accounting audits of the consolidated financial statements, accounting documents, etc., and produces an audit report. Regarding accounting audits, Advantest has audited with Ernst & Young ShinNihon LLC and received predetermined audits. EY Shin Nihon LLC Audit Corporation (formerly Daiichi Audit Office) has been conducting listing audits of Advantest since 1983, when Advantest was listed on the Second Section of the Tokyo Stock Exchange. The certified accountants who executed the accounting audit work of Advantest in FY2022 are Mr. Toshiyuki Matsumoto, Mr. Minoru Ota and Mr. Hiroyuki Nakada. The rotation of the certified public accountants is conducted appropriately at Ernst & Young ShinNihon LLC and no certified public accountants are involved in accounting audits of the same company for more than seven consecutive accounting periods. Lead certified public accountants are not involved in accounting audits of the same company for more than five consecutive accounting periods. If a certified public accountant is involved in accounting audits of the same company for seven consecutive accounting periods, he or she will be involved in accounting audits of that company only after an interval of five accounting periods. Lead certified public accountants who are involved in accounting audits of the same company for five consecutive accounting periods will not be involved in accounting audits of that company again. In addition, assistants performing Advantest's accounting audit work include those with expert knowledge such as system experts, with CPAs as the main constituents.

#### Internal Audits

We have established an Internal Audit Office under the direct control of the President with a total of 15 full-time employees (as of July 1, 2023) in charge of internal auditing, including seven employees at Advantest and eight employees at overseas group companies (the U.S., Singapore, and South Korea). In accordance with the increase in the number of business locations in the U.S., the internal audit staff in the U.S. was added to the headcount in FY2022.

Based on the audit plan for each fiscal year, the Internal Audit Department audits the operations of each division of the Company and domestic and overseas Group companies with respect to the audit items of risk response, compliance with laws, regulations, and internal rules, business effectiveness and efficiency, information security, and asset protection. It also identifies problems, formulates recommendations for improvement, and monitors the status of improvement. In addition, the Internal Audit Department is also responsible for evaluating and reporting on internal control over financial reporting based on the Financial Instruments and Exchange Law.

The Internal Audit Department reports directly not only to the President but also to the Board of Directors and the Audit and Supervisory Committee, Periodic reports are made to the Board of Directors on a semi-annual basis and on a quarterly basis to the Audit and Supervisory Committee.

#### Cooperation among the Audit and Supervisory Committee, Accounting Auditors, and Internal Audit Department

#### Cooperation among the Audit and Supervisory Committee and the Accounting Auditors

The Audit and Supervisory Committee holds regular meetings with the accounting auditor at the time of audit planning and on a quarterly basis. At the meeting, the Audit and Supervisory Committee receives reports from the accounting auditors on the audit plan, the status of group audits, the results of quarterly reviews, and the results of year-end audits, while questions are raised as necessary regarding audit issues.

Upon receipt of the text on the key audit matters (KAM) from the accounting auditors, the Audit and Supervisory Committee proactively communicates its opinions and requests regarding the selection of KAM items and the description of specific information.

#### Cooperation among the Audit and Supervisory Committee and the Internal Audit Department

The Audit and Supervisory Committee receives regular briefings on the annual plan and quarterly activities of the Auditing Group, including the evaluation of internal control over financial reporting based on the Financial Instruments and Exchange Law, and exchanges opinions in lively question-and-answer sessions. The committees also exchange opinions on the results of internal audits on individual topics as deemed necessary.

#### Cooperation among the Internal Audit Department and the **Accounting Auditors**

The Senior Vice President of the Auditing Group is responsible for determining the annual plan and scope of the audit of internal control over financial reporting upon consultation with the accounting auditor. In addition to regular quarterly meetings with the accounting auditor regarding the status of internal control evaluations, temporary meetings and exchanges of opinions are held, as necessary.

Corporate Governance

## Nomination and Compensation Committee

Advantest has established the Nomination and Compensation Committee as a non-mandatory organization, which complements the Board of Directors, to decide appointment/dismissal of Directors and Executive Officers and their compensation. The Nomination and Compensation Committee shall be responsible for improving the fairness, rationality, and transparency of appointment/dismissal of Directors and Executive Officers and their compensation. The Nomination and Compensation Committee is composed of members selected in members of the Board of Directors under the resolution of the Board of Directors. To introduce an independent viewpoint, more than half of the members are outside directors. The Chairperson of the committee is also an outside director. The Human Resource Department is its secretariat. In FY2022, the Nomination and Compensation Committee met 14 times. Mr. Toshimitsu Urabe, Ms. Sayaka Sumida, and Mr. Yoshiaki Yoshida attended every meeting. All the members were present at every Nomination and Compensation Committee meeting.

Regarding the selection of directors and executive officers, the Nomination and Compensation Committee submit reports of persons as candidates to the Board of Directors who will contribute to a sustainable level of business development and enhancement of corporate value over the mid/long-term in accordance with the "Directors and Executive Officers Nomination/Dismissal Policy and Procedures" prescribed by the Board of Directors regarding Directors and Executive Officers. The Nomination and Compensation Committee also considers the diversity and maintains the appropriate number of directors and executive officers, including gender and international aspects. In addition, regarding independent outside directors, "Independence Criteria of Independent Outside Directors" prescribed by the Board of Directors also applies in addition to the "Directors and Executive Officers Nomination/Dismissal Policy and Procedures" mentioned previously. Candidates recommended to the Board of Directors should have a wealth of knowledge and can be expected to contribute actively to the Board of Directors. The Board of Directors deliberates proposals from the Nomination and Compensation Committee, and determines and appoints candidates for Directors and Executive Officers.

The Board of Directors will deliberate on the dismissal or removal of directors and executive officers when the Nomination and Compensation Committee determines that such dismissal or removal is appropriate, or when other directors propose that the criteria for dismissal or removal be met.

#### Main Activities of the Nomination and Compensation Committee

#### Candidates for Directors and Executive Officers and the Management Structure

Under the structure of directors and managing executive officers adopted in June 2022, the Nomination and Compensation Committee has appointed appropriate candidates and proposed them to the Board of Directors. The management structure for strengthening the CxOs was discussed and proposed to the Board of Directors. The Nomination and Compensation Committee discussed management structure in response to changes in the management environment including business expansion, acceleration of further growth, and preparation for future generational changes, and proposed transition to a three-member representative director structure to the Board of Directors. With regard to the composition of directors and senior executive officers after June 2023, the composition of the Board of Directors and the selection of candidates was discussed, along with the management structure associated with the transition to three representative directors, and was reported to the Board of Directors as appropriate.

#### Succession Plan for Group CEO

After analyzing management issues and personnel requirements for the Group CEO and management team, the Committee held discussions after receiving reports and assessment of some of the senior executive officers and a survey on external human resources from an external HR consulting firm. In these discussions, the Nomination and Compensation Committee referred to the annual Group CEO assessment by non-executive directors and interviews with non-executive directors and senior executive officers. Based on discussions with the non-executive directors, the Nomination and Compensation Committee decided on a succession candidate and a transition plan and proposed both to the Board of Directors.

#### Knowledge and Experience Required of Directors and Senior Executive Officers (Skill Matrix)

We recognize that the Skill Matrix is a tool to consider the most appropriate executive team and board structure, starting with analysis and forecasting of the business environment, the executive structure to implement these strategies, and the board structure to supervise and guide the execution of the management. In FY2022, the Nomination and Compensation Committee has established knowledge and experience as the elements we seek among our Directors and Senior Executive Officers, based on discussions with non-executive directors.

#### **Operation of Executive Compensation**

Individual evaluations of executive bonuses for FY2021 were discussed and finalized.

The Nomination and Compensation Committee discussed and proposed to the Board of Directors the fixed compensation, performance indicators for performance-linked bonuses and stock compensation for FY2022. In addition, the Nomination and Compensation Committee established a process to define the roles and expected performances of each Director/Officer and evaluate the results.

Based on that, the Nomination and Compensation Committee discussed fixed compensation for FY2023.



#### Directors and Executive Officers Nomination/ Dismissal Policy and Procedures

https://www.advantest.com/sustainability/governance/pdf/ Nomination Dismissal Policy and Procedures 20221222 E.pdf





Independence Criteria of Independent Outside Directors





## **Succession Planning**

The Nomination and Compensation Committee deliberates and implements the succession plan for the Group CEO, taking into consideration the perspectives of the management team consisting of the senior executive officers, in (1) organizing the personnel requirements, (2) selecting the candidates, (3) evaluating the candidates, (4) narrowing down the candidates, and (5) training the candidates. The Board of Directors receives reports from the

Nomination and Compensation Committee and proactively discusses them.

Succession plans for key positions, such as the leader of each unit, are reviewed annually by a review committee headed by the Group CEO. In addition, in accordance with the policies established by a review committee, the responsible department designs and implements training and development plans for candidates, reporting status to the Nomination and Compensation Committee and the Board of Directors as appropriate.

Corporate Governance

## **Executive Compensation**

#### **Basic Concept**

The basic concept of the executive compensation system is as follows.

- 1. Establish a compensation mix and level that attracts international human resources who can support our global business development
  - ⇒ In order to continue growing in the semiconductor industry, which is complex and swiftly-evolving on a global level, we appoint talented human resources from all over the world and compensate them according to global standards.
- 2. Well-balanced bonuses linked to performance
  - ⇒ Given that Advantest's business performance fluctuates, we reward the contribution of officers when business performance is good, and reduce the burden on our company when business performance is declining
- 3. Stock compensation that encourages executives to share the shareholder perspective and promotes a medium- to long-term perspective on management

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⇒ We combine restricted stock compensation (RS), which encourages executives to pursue the medium- to long-term corporate value improvement that shareholders desire, and performance-linked stock compensation (PSU), which encourages the achievement of medium-term management goals that lead to the improvement of corporate value.

#### **Structure of Executive Compensation**

The Company's executive compensation system consists of fixed compensation (monetary compensation), performance-linked bonuses (monetary compensation), and stock compensation (non-monetary compensation). The ratio of fixed compensation, performance-linked bonuses, and stock compensation is approximately 1: 1: 1 for Senior Executive Officers (including the President) and 1: 0.8: 0.8 for other Executive Officers. In consideration of their roles and independence, outside directors and directors who are members of the Audit and Supervisory Committee receive only fixed compensation (monetary compensation).

#### **Process for Determining Executive Compensation**

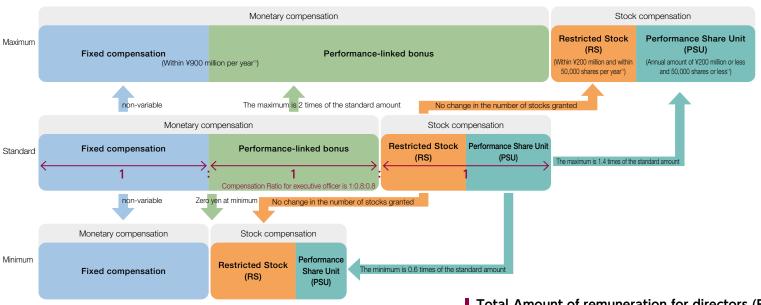
The total amount of compensation for directors is proposed to the Board of Directors by the Nomination and Compensation Committee and is subject to approval by a resolution of the Board of Directors and the General Meeting of Shareholders. Compensation to be paid annually to directors (excluding members of the Audit and Supervisory Committee) is proposed to the Board of Directors by the Nomination and Compensation Committee within the total amount of compensation for directors determined by a resolution of the General Meeting of Shareholders, and is determined by a resolution of the Board of Directors. Compensation for directors who are members of the Audit and Supervisory Committee is determined within the total amount of compensation for directors who are members of the Audit and Supervisory Committee as determined by a resolution of the General Meeting of Shareholders, through consultation among the directors who are members of the Audit and Supervisory Committee.

#### Summary of Executive Compensation

	Fixed compensation		Variable compensa	tion
Type	Monetary compensation	Performancelinked Bonuses (cash compensation)	Restricted Stock compensation (RS)	Performance-Share Unit compensation (PSU)
Incentive	Fixed compensation	Short-term incentives	Mid/Long-term incentives	Mid/Long-term incentives
Payment	Paid monthly	Paid once a year after the performance of the Advantest Group for the relevant business year is confirmed	It is granted every year, with restrictions on transfer during the recipient's term of office (obligation to continue holding)	After the end of the mid-term management plan, PSU for the preceding three years is vested in a lump sum. PSU for officers who take office or retire in the mid-term management plan will be prorated according to the length of time they have served.
Ranges	Fixed compensation shall be set at an appropriate level according to individual duties and responsibilities, and will be paid monthly, with reference to external objective data	Based on the current fiscal year's performance and individual evaluation.	50% of stock-based compensation for directors and executive officers (including the president) is RS	50% of stock-based compensation for directors and executive officers (including the president) is PSU. 60% to 140% of the base value is paid based on the results of achievement of mid-term management targets (KPI) for the three-year period.
		[Performance indicators] With the annual profit plan target achievement rate as a KPI, bonuses vary from 0% to 200% of each individual's standard amount.  * The standard amount of Senior Executive Officer is 100% Fixed compensation. The standard amount of other Senior Executive Officer is 80% Fixed compensation.		The KPIs are the following three items, and the weight of each item is as follows.  [EPS growth rate] The target is 14% average annual EPS growth over the three years of the mid-term management plan Fluctuation between 70% and 130% of the standard units
Indicators/ Formulas	_	[Individual evaluation] Up to 30% of the total amount of performance-linked bonuses for executive officers is redistributed based on individual evaluations conducted by the president. Evaluation and redistribution proposals are discussed and	_	[Relative Total Shareholders Return (r-TSR)] Comparison between the TSR of TOPIX with our TSR (our TSR ÷ TOPIX – TSR) Fluctuation between -5% to 5% of the standard units
		approved by the Nomination and Compensation Committee and reported to the Board of Directors. In principle, the president's performance-linked bonus is calculated based on the results of performance indicators, but if the Board of Directors deems it necessary and clearly states their reasoning, it may be increased or decreased.		<b>[ESG evaluation]</b> Evaluation scores of the S&P Global Corporate Sustainability Assessment are used as an index Fluctuation between -5% to 5% of the standard units

#### Visualization of compensation for executive officers

#### Senior executive officer/Executive officer



<sup>\*</sup> Apart from this, there is a redistribution adjustment (30%) of performance-linked bonuses based on individual evaluation

#### Board members who is an Audit and Supervisory Committee members

Monetary compensation Fixed compensation (Within ¥100 million per year2)

Outside directors (excluding directors who are Audit and Supervisory Committee members)

Monetary compensation Fixed compensation (Within ¥60 million per year1)

#### Total Amount of remuneration for directors (FY2022)

				Total Compens	ation by Category	(Millions of yen)		
0.1		Total	Cash Con	npensation	Non-	Number of		
Category	Company	Compensation (Millions of yen)	Fixed Compensation	Performancebased Compensation	Stock Options	Restricted stock compensation	Performancebased Stock Compensation	Eligible Officers
Directors (excluding audit and supervisory	Advantest	695	184	162	17	137	195	5
committee members) (excluding outside directors)	Subsidiary	145	70	75	0	0	0	3
Directors (audit and supervisory committee members) (excluding outside directors)	Advantest	43	43	0	0	0	0	1
Outside Directors		72	72	0	0	0	0	5
(not audit and supervisory committee members)	Advantest	(41)	(41)	0	0	0	0	(3)
(audit and supervisory committee members)		(31)	(31)	0	0	0	0	(2)

<sup>\*1.</sup> As of March 31, 2023, the number of directors (excluding outside directors and directors who are Audit and Supervisory Committee members) is 5, and the number of outside directors is 5.

<sup>\*</sup> Senior executive officers who is also a director will be paid separately as director compensation

<sup>\*1</sup> According to a resolution of the 79th Ordinary General Meeting of Shareholders, held on June 23, 2021.

<sup>\*2</sup> According to a resolution of the 73rd Ordinary General Meeting of Shareholders, held on June 24, 2015

<sup>\*2.</sup> For stock options granted in or before FY2020, the amount recorded as expenses based on Japanese standards for FY2022 is shown. Stock options were not granted in FY2022. Restricted stock compensation and performance-linked stock compensation amounts shown are the amounts recorded as expenses based on Japanese standards for FY2022.

## Board of Directors, Skill Matrix



Yoshiaki Yoshida Representative Director, President Group CEO



**Douglas** Lefever Representative Director, Corporate Vice President Group COO



Koichi Tsukui Representative Director, Corporate Vice President Group Co-COO



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**Toshimitsu Urabe** Independent

Outside Director of Japan Business Systems, Inc.



Independent Director Representative Director. The Board Director Training

Institute of Japan



Naoto Nishida



Director Special Commission. Toshiba Corporation



Yuichi Kurita

Director, Audit and Supervisory Committee Member



Sayaka Sumida

Independent

Director, Audit and Supervisory Committee Member Outside Audit & Supervisory Board Member, Furukawa Electric Co., Ltd. Outside Audit & Supervisory Board Member, The Nisshin OilliO Group, Ltd.

100%(14 times)

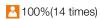


Independent Newly appointed

Director, Audit and Supervisory Founder and Representative, Tokyo Heritage Law FirmOutside Director, Audit and Supervisory Committee Member, TS Tech Co., Ltd.

100%(14 times) 100%(14 times)

100%(14 times)







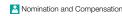




100%(13 times)◆ 100%(14 times)



#### Details of Skill



#### Nomination and Compensation Committee 100% Attendance Rate

#### Skill Sets Required of Board of Directors and **Executive Management Officers**

In the nomination and selection of Directors and Senior Executive Officers, the Company recognizes that noteworthy issues around the corporate management and communication with stakeholders have to be taken into consideration, in addition to our Purpose & Mission, management strategies, and business strategies. Our business is indispensable for the manufacturing of semiconductors, which support the development of our society, and also assumes the important function of supporting the stable operation of the facilities and systems in our society and industries, creating great opportunities for growth even in the surrounding areas. The Company has selected the following nine areas for management activities which are considered important for the Company to grow the business in the medium to long term and realize the improvement of our corporate value.

Areas for management activities	Items	Experience, knowledge, and abilities expected
	Top management	Management experience at a company or legal entity (as a chairperson, president, representative director or equivalents)
Management &	Management strategy	Experience as a head of a management strategies department 1,2
Corporate Strategy	Experience and knowledge of business investment and M&A	Experience and knowledge of business investment and M&A
② Semiconductor	Knowledge of the semiconductor-related industries	Experience in semiconductor-related industries and knowledge of the semiconductor industry
	Knowledge of the industries & technologies (incl. Environment and Energy)	Knowledge of the electrical/electronics related industry and ICT technologies
③ Technology	Research & development	Experience as a head of an R&D department 1,2
	SCM <sup>-3</sup> , production, and quality assurance	Experience as a head of SCM 3, production, production engineering, and quality assurance departments 12
Sales & Marketing	Sales and marketing	Experience as a head of a sales and marketing department 1,2
	Finance and accounting	Experience as a head of a finance and accounting department ".2 or as a certified public accountant
⑤ Finance & Accounting	Communication with the capital market	Experience as a head of the department responsible for communicating with investors and shareholders 12, such as a head of IR (Investor Relations) or SR (Shareholder Relations) department
6 Legal & Compliance	Legal affairs, risk management, and compliance	Experience as a head of a legal affairs, risk management or compliance department '12' or as an attorney at law
Human Capital Management	Human capital management	Experience and knowledge as a head of an HR department 12, or in recruiting & developing human capital, and talent management
Global Business	Global business	Experience at a global organization or experience working in a foreign country
Digital Transformation	IT • DX	Experience as a head of an IT department "12, and as a head of a DX promotion department "12

<sup>\*1:</sup> The head of a large company or a company with complicated businesses operations \*2: The executive of a specialized service company in the relevant field \*3: Supply Chain Management

■ Board of Directors, Skill Matrix

## Skill Matrix of the Board of Directors

					Funda	Fundamental managerial activities deemed essential for carrying out							duties and gu	iding/supervisi	ng our manage	ement team	Key areas of our immediate management issues		
					Manageme										6 Legal & Compliance	(7) Human Capital Management	(8) Global Business		
			Attribute		Manag	gement	Experience	R&D, Semicon	ductor, Industries	& Technologies			Finance & Accounting, Communication with Capital Market						
		Nationality	Member of the Audit and Supervisory Committee	Independent member	Top management	Management strategy	knowledge of business investment and M&A	Knowledge of the semiconductor related industries	Knowledge of the industries & technologies (incl. Environment and Energy)	Research & development	SCM, production, and quality assurance	Sales and marketing	Finance and accounting	Communication with the capital market	Legal affairs, risk management, and compliance	Human capital management	Global business	IT & DX	
<u> </u>	Yoshiaki Yoshida Male	Japanese			0	0	0	0				0		0			0		
side D	Douglas Lefever Male	American			0	0	0	0	0	0		0					0		
irecto	Koichi Tsukui Male	Japanese			0	0		0		0		0		0			0		
rs	Yuichi Kurita Male	Japanese	0			0	0	0					0	0			0		
	Toshimitsu Urabe Male	Japanese		0	0	0	0									0	0		
Outsi	Nicholas Benes Male	American		0		0	0							0	0		0		
de Din	Naoto Nishida Male	Japanese		0				0	0	0	0						0		
ectors	Sayaka Sumida Femal	Japanese	0	0									0		0		0		
	Tomoko Nakada Fema	Japanese	0	0											0		0		
*Skil	s of the Senior Executive Officers (exclu	ding those c	oncurrently s	serving as di	rectors) as of	June 27, 202	3 will be as f	ollows.				1							
	Soichi Tsukakoshi Male	Japanese						0			0	0					0		
(0	Keith Hardwick Male	American					0	0					0			0	0		
Senior	Yasuo Mihashi Male	Japanese				0	0	0				0		0			0		
Exec	Juergen Serrer Male	German						0		0							0		
utive (	Sanjeev Mohan Male	American						0				0					0		
Officer	Richard Junger Male	German						0			0						0	0	
S)	Yong Xu Male	Chinese						0				0					0		
	Makoto Nakahara Male	Japanese						0			0	0					0		

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## Messages from Newly Appointed Outside Directors



Naoto Nishida

#### I will add value to the Board of Directors by leveraging my research and development experience and technical background.

I recognize that Advantest, which provides key equipment and solutions to semiconductor device manufacturers around the world, is a very valuable company. For this reason, I am very pleased to have been given the opportunity to serve as an outside director.

As a university student, I worked at a laboratory focused on laser engineering, so when I went to work for Toshiba, I was assigned to the laser equipment research and development department. Starting with the development of the country's first high-power CO<sub>2</sub> laser as part of a large-scale national project, I worked on research and development of various laser devices. What left the biggest impression on me was the development of excimer lasers for semiconductor processes.

17 years after joining Toshiba, I left front-line R&D, and went on to experience management in the research and development department and the production department. I eventually became the company-wide technology supervisor. In addition, after retiring from Toshiba as an executive officer, I was responsible for "Photonics and Quantum Technology for Society 5.0", a part of the Cross-ministerial Strategic Innovation Promotion Program (SIP) led by the Japanese Government's Council for Science, Technology and Innovation (CSTI), for five years, ending in March this year. This program achieved great results, including many social implementations of technologies.

Going forward, I would like to make maximum use of the knowledge, experience, and personal connections I have gained through my career to contribute to the sustainable improvement of Advantest's corporate value and to add value to the Board of Directors.



Director, Audit and Supervisory Committee Member Tomoko Nakada

## I will utilize the independent perspective of a legal professional to conduct monitoring that contributes to improving corporate value.

I began my legal career in Japan as a judge in the civil division of the Tokyo District Court in the spring of 1997. Starting in the summer of 2000, I studied in the United States (New York and Boston) for two years. Since returning to Japan in the summer of 2002, I have worked as an attorney-at-law admitted in Japan and in New York. Since June 2021, I have also served as an Outside Director, Audit and Supervisory Committee Member of a listed company that manufactures seats for automobiles.

Having practiced law for over 20 years, I recognize that it is crucial to understand the background facts and the business in question before making a legal decision. I have served as an outside counsel for banks and companies, and my consultations often fall in the realm of business judgement rather than legal issues. Many of my clients are foreigners and foreign lawyers, and I use English every day in my work.

As an Outside Director, Audit and Supervisory Committee Member of Advantest, I believe that these experiences—my lawyer's understanding of the importance of grasping the facts before making legal decisions; my experience of giving advice to client banks; my English proficiency and experience in working with foreign lawyers; and my experience of expressing opinions independently as a judge—will help me to monitor management decisions and ensuring that they are made in accordance with the business judgement rule.

I hope to utilize my knowledge and experience so far to review the company from a new, outsider's perspective, and contribute to the improvement of Advantest's medium to long term corporate value.

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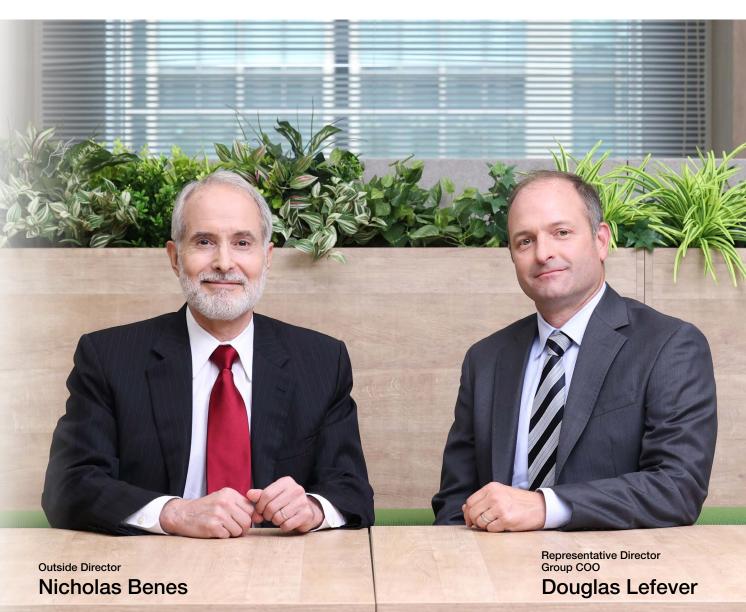
## A Conversation with Directors

**Quest for Continuous Improvement** 

Moderator Looking back on FY2022, what topics/discussions on Advantest's board were particularly striking and memorable?

Lefever In FY 2022, the velocity at which the industry changed was probably more drastic than anything I have seen in my whole career. High growth partly supported by COVID-related stay-at-home demand suddenly stopped in the middle of 2022. This felt as striking as the Global Financial Crisis or even when the dot com bubble burst, if not more. Board discussions up to that point had been focused on components shortage, but within a short period of time, we were talking about inventory management. I would say we had useful and certainly memorable discussions, but we did not have all the systems and practices we needed to react immediately to this sudden shift.

There are companies out there that have overreacted to the supply chain changes and halted everything. Fortunately, we have a broad customer base with a wide variety of product segments. We are able to address this situation by coordinating requests from customer to extend or accelerate delivery dates. In other words, finding that sweet spot and striking the right



#### A Conversation With Directors

balance of reacting but not overreacting is important, and this is where the Board can support the executive team.

Benes I think the team did a good job of dealing with the situation under the circumstances. However, as a Director, my job is to monitor, confirm, and encourage. I believe we can improve further by aggregating the right data even more, reducing subjectivity from such data, and analyzing and projecting forward so that volatility can be managed in a more systematic way. This will minimize the risks of underreacting or



overreacting. I think we are making progress, but we can make even more progress.

**Lefever** The problem is, sometimes it is too late by the time you get the "hard" data. To make proactive decisions, one of the most important things is to stay in close touch with customers and supply chains, listening to what's happening, and integrating those forward-looking insights and information into forecasts of what is potentially around the corner.

**Benes** I regret not recognizing these signals last year. These changes did not happen in one day. There were signs out there that we could have and should have been monitoring better, and we are going to learn from this lesson.

**Moderator** Benes san, what was the most memorable discussion for you in 2022?

Benes The most memorable discussions for me were those about how we should modify our long-term strategy in advance as sources of demand for semiconductors – end-user demand – become even more diverse than now, as the value of high-end test equipment increases for our direct customers, and as we simultaneously add a whole new business, "analysis". Many of these discussions center around Advantest Cloud Solutions™ and the incredible amounts of valuable data generated by our core products. These are all exciting but challenging topics. They require adding to our historically "hardware-oriented" brains a "software and solutions-oriented" mindset as well. They also lead to steps we are taking to add to

our organizational infrastructure in advance, because we will almost certainly become a much larger company in the not too-distant future. Pulling these topics together is not easy, but it is fulfilling, and it directly relates to our long-term sustainability. Planning for highly profitable growth that helps customers at many levels, and the world in general, is satisfying work.

**Moderator** One area in which our investors and shareholders indicate a high level of interest is our M&A strategy and execution. Advantest has acquired and invested in several companies in recent years. What role has governance played in these transactions or in post-merger integration (PMI)?

**Lefever** We have fairly standardized processes from our M&A, due diligence, and integration teams from a governance perspective. As part of due diligence, one of the things we always look at is cultural fit. To that end, after we acquire companies, we go through our core values training for all employees that is followed by regular follow-ups. It is a strict and sequenced process that we have continued to polish as we learn new lessons. For the most part, we have been successful in bringing in different cultures into the Advantest Way so as to facilitate "cross-pollination."

Benes At the Board level, I am satisfied that the Company has a systematic way of approaching M&A despite the complexity of its business and the multitude of its locations. We spend considerable time reviewing each M&A transaction in advance, and at each step in the process. Even before a concrete deal emerges, a number of different transactional options are

#### A Conversation With Directors

constantly being considered. Also, we review PMI planning before we sign each deal, discussing what potential issues that may arise, and confirming who will be in charge of different PMI aspects, etc. The board is well aware that the hardest things to "integrate" are things like corporate culture, ethics, and coordination with other units as part of a truly global company. As Doug said, even though it is not easy, setting a base for "cross-pollination" is one of the key ways we derive extra value from acquisition.

Discussions by the Board to constantly renew and refine our "Grand Design Map" have helped us target the right extensions to our Value Chain and identify the most valuable synergies and cross selling opportunities.

As an M&A advisor and an investment banker, one thing I learned is that the way a company gets good at M&A, is simply to do a lot of it. One of this company's competitive advantages is that it is one of the most experienced firms I have seen in global M&A here in Japan. Because of this, Advantest is no longer a typical Japanese company, but rather a multinational company with a global mindset which is very unique.

There are many Japanese companies that do global M&A. However, for many of them, the M&A process is slowed and hampered by blindered thinking, hierarchy issues, or organizational blockages. M&A has not been fully integrated as a fast-moving, standardized part of the global organizational culture, and acquisitions are often left to manage themselves on a "stand-alone" basis. In contrast, Advantest's diverse, cross-national leadership and its focus on "cross-pollination" has helped it integrate well and learn things from foreign colleagues in general. In fact, our Board meeting is sometimes

conducted in a sort of "champon\*" style, in a mix of Japanese and English!

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**Lefever** I think another thing that has helped us with M&A is the strength of our local teams and global coordination capability. Although M&A efforts are spearheaded by the M&A team, we also rely on local management teams in building relationships and executing. That is because our M&A targets are in different parts of the globe, so we cooperate with our local management members to communicate with target companies. The fact that we have people in different locations is a strength we play to our advantage.

One thing I should mention is that we have acquired a few companies during COVID-19. Because of travel restrictions imposed by the Pandemic, we have not been able to facilitate cross-pollination as much as we hoped. Having said that, one of the things we learned over time is that as much as we want to cross-fertilize, sometimes it is important to let it happen naturally, because if you force it to happen too fast, you can break things. And anyway it sometimes comes from a direction you did not expect. So, this is a process that requires patience.

**Moderator** Benes-san, in addition to your experience as an investment banker, you currently serve as Representative Director of the Board Director Training Institute of Japan, a "public interest" non-profit that you founded. How has your career path up until now affected your role as a Director at Advantest? What topics do you tend to focus on?



Benes It is true that my career has reflected a personal focus on governance improvement for nearly 25 years. I do suggest certain governance practices from time to time, my role should not be to insist on particular methods unless others agree or if they are truly essential.

Fortunately, we have an "open-minded" board where you can say what you think and people still get along well, and which improves over time. That's the most important thing. Being a former banker, I do tend to spend time raising financial topics and questions, analyzing trends, encouraging deeper analysis, discussing what shareholders expect from us, making sure

#### A Conversation With Directors

M&A transactions are being found, examined, and executed optimally, etc. Things can sometimes get a bit bumpy because bankers and engineers do not have the same skills or perspectives. What is obvious to one is not obvious to the other. However, when we thrash things out in diplomatic fashion, I think the result is better and mutual learning takes place. This is the value of skills and experience diversity. For instance, I cannot add value suggesting how to design new types of test machines, but I can suggest ways to improve financial analysis.

For me, my objective is to bring the concept of "kaizen," which means continuous improvement, to the Board, because no Board is perfect or ever will be. We should always be asking if there is a better way. Perhaps because of my training as a lawyer and an MBA, I am a strong believer that robust discussion and debate supported by freely proposing ideas and fully analyzing data are key to both governance and management. To do this, I feel that the Board needs to constantly strive for efficiency, by allocating more time for asking questions and debating, and less for receiving readouts of presentations. For instance, I think the Board needs to spend even more time discussing where we should strive to be 10 years from now.

**Lefever** Yes, we all would like to predict the future better if we could. However, the pace of change in this industry is such that even six months ago, no one could have predicted the explosive growth of generative Al. Even the industry leaders we talk to every day were taken by surprise by this. Given those circumstances, I would like to focus on "stagility\*." In my

journal, I took some notes about the key concepts that underpin the idea of "stagility." Those are: 1) embrace a growth mindset: 2) develop strategic ability; 3) invest in digital transformation; 4) encourage cross-functional collaboration; and 5) foster a resilient culture. If we do these things, no matter what happens, we can be flexible in coming up with solutions. I feel this is most important, because we cannot see everything that is happening but we can still be a company that can quickly adapt.

Benes That's a good concept. As a person with a non-engineering background, I have even less feel than you for how technological changes will affect us years from now. What I do know, is that as semiconductors are becoming ubiquitous nowadays, with volume and complexity constantly increasing, we have a social duty as the world's leading test equipment supplier to help ensure that they dependably function as designed. We also need to ensure that our products last a long time and use as little energy as possible. Doing so will not only drive our long-term sustainable growth and profits, but also help us contribute to a net zero global economy.

Hard as it is, I think the accelerating complexity and myriad of uses of semiconductors require us to constantly think 10 years ahead and imagine who will be the new future consumers of semiconductors, and what is the range of new products and solutions opportunities for Advantest that may emerge, so that we will be prepared to move quickly to fully realize our enormous potential value.

Lefever As you say, we do indeed have a responsibility to the

world and our customers, especially since semiconductors are now consuming so much of the world's energy and resources. These are major sustainability issues for us, and at the same time, they bring big opportunities.

Benes It is all so much easier said than done. To identify and invest in those emerging opportunities, we need to be constantly asking the questions that deepen long-term vision and foster entrepreneurial, holistic thinking about where the world is heading, and how we can contribute to a better future. I realize what I am saying is very difficult and challenging, but this must be our goal.

\*Champon is a Japanese word that means mixing up items that are inherently different from each other.

\*Stagility = stability + agility

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## Our Business Segments & Flagship Products

Advantest has three business segments: Semiconductor and Component Test Systems, which accounts for about 70% of sales; Mechatronics Systems, which handles test system peripherals; and Services, Support and Other, which mainly provides customer support and system-level test products. In combination, these products and solutions enable us to respond to a wide variety of semiconductor test needs and diverse customer requirements. Our broad portfolio is one of the keys to our competitiveness.

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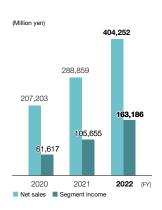
#### **Semiconductor and Component Test Systems**

Semiconductor test equipment is our main product line. Our test systems are roughly divided into testers for SoC semiconductors and testers for memory semiconductors.

Testers for SoC semiconductors can test almost all devices other than memory semiconductors, such as logic semiconductors, analog semiconductors, and RF devices. The SoC semiconductor tester market is two to three times larger than the memory semiconductor tester market, and users number in the hundreds, including fabless and OSAT companies. The SoC semiconductor tester market is characterized by this large number of customers and the wide range of device types needing to be tested. Our testers for SoC semiconductors feature excellent scalability in terms of test range and test capacity, and can test a wide range of devices, from low-cost IoT devices to high-end semiconductors.

Memory semiconductor testers are optimized for the mass production of memory semiconductors, such as DRAM and

NAND flash. In the memory sector, device types are less diverse, and production volumes are huge, meaning that customers seek to adopt testers capable of testing hundreds of devices at once. Our memory testers dominate this sector, as they are capable of higher speeds than the fastest devices in production today, and boast industry-best parallel test capabilities.



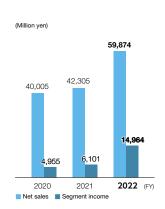
### **Mechatronics Systems**

Our mechatronics-related business consists of test peripherals such as device interfaces and test handlers, which are used in conjunction with test systems, and nanotechnology products used in front-end semiconductor manufacturing processes.

A device interface is a general term for devices that are electrically connected to a test system, making it possible to rapidly repurpose the test system to test diverse devices with various sizes and pin counts.

A test handler is a tool that performs the three roles of transporting semiconductor packages to the test system, applying temperature to them, and sorting semiconductors according to test results in back-end semiconductor manufacturing processes. Our handlers, test systems, and device interfaces comprise one-stop "test cells" that combine high test quality and production efficiency.

Our nanotechnology products are scanning electron microscopes that utilize our proprietary electron beam technology. They are used to measure the width and height of circuits drawn on photomasks and wafers in front-end semiconductor manufacturing processes, an area where demand is expected to increase with the spread of EUV lithography.



### Services, Support and Others

Our field services business and system level test business account for the majority of sales in this segment.

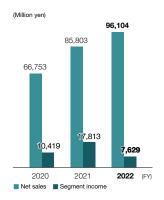
Field services are not limited to maintenance of our systems. We are also expanding into high value-added services such as system utilization rate improvement, mass production ramp consulting, and security-conscious online support.

System-level test systems test semiconductors in an environment similar to that of the final product where the semiconductors will be used. It screens out defects that cannot be checked

by testing the device in a stand-alone environment. We built an early position of strength in this sector through acquisitions, and are now working to grow our system-level test business through synergies with our test systems.

In addition, this segment includes Advantest Cloud Solutions™ (ACS), which enables data utilization in the semiconductor manufacturing process:

second-hand product sales; and products for non-semiconductor applications such as measurement solutions for the medical and pharmaceutical fields.



Our Business Segments & Flagship Products

## **Synergistic Solution Families Centered** on Semiconductor Test Systems

AI & Data Analytics by Advantest Cloud Solutions™ (ACS)

Established a partnership with PDF Solutions, Inc. (FY2020)



#### **Support & Services**



**Device Interface** 







#### **Services, Support and Others**

#### **Mechatronics Systems**

#### **Test Handler**

M4872 For SoC Test



M6242 For Memory Test



**Semiconductor and Component Test Systems** 

#### **Memory Test System**

T5503HS2 For High-Speed **DRAM Test** 

T5833 For DRAM/NAND Test

#### **SoC Test System**



V93000 T2000 For SoC Test For SoC Test

here used to mean "non-memory."

#### System Level Test (SLT)

MPT3000HVM SSD Test System

ATS503x System Level Test System

Acquired SLT business from Astronics Corporation (FY2018)

#### **Nanotechnology**

E3650 CD-SEM For Photomask / EUV mask



#### **Socket and Thermal Control Units**

Thermal Control

High-end Test Socket



Acquired Essai, Inc. (FY2019)

#### **Test Interface Boards**



Acquired R&D Altanova, Inc. (FY2021) Acquired Shin Puu Technology Co., Ltd. (FY2023)



**TAS7500** Terahertz Spectroscopic / Imaging System





Acquired CREA S.r.l. (FY2022)

## Our Technology In-Depth: Semiconductor Test Systems

#### The Value of Test Systems

The semiconductors used in various products are so important to the functioning of modern society that they cannot be allowed to fail. However, with semiconductors that operate at high speeds and utilize nanometer-scale circuits, even the smallest manufacturing issues can cause defects such as disconnections or variations in operating voltage and timing. In particular, leading-edge devices pose major technical challenges in terms of manufacturing stability. Manufacturers aim to rapidly achieve high-quality volume production of their devices, in part by thoroughly testing them from the early stages of design all the way through to the production line. This is where semiconductor test systems come into play. Test systems not only perform "final test", after semiconductors are packaged, to determine whether they work properly, but also perform "wafer test" at the end of the front-end process. They are even used at the design and evaluation stages. By analyzing the causes of defects revealed by volume production test and feeding them back to the design stage, yields can be improved, and test programs and test data from the design and evaluation stages can be utilized in volume production test, shortening overall time to market, speeding up the volume production process, and reducing costs.

In addition, many test systems use a modular architecture. By replacing boards, test programs, and device interfaces, it is possible to test multiple types of semiconductor devices on a single system. In the SoC business, where diverse applications require a large variety of device types to be developed, test system flexibility is a major factor in the success of our

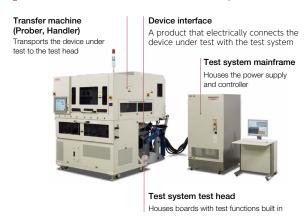
#### What Makes Our Test Systems Superior?

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Semiconductor test systems have a wide range of points of differentiation, such as measurement quality, test speed, throughput (test time required per device), footprint, and control of heat generation, but the key to achieving superiority on many of these metrics is the semiconductors used in test systems themselves. This is why test system providers design their own semiconductors for use in their products. That design capability is the most important factor in determining the performance of a test system and differentiating it from competing products. In addition to the semiconductors installed in the test system, there are many points of differentiation related to test capabilities and quality, such as the communication network, power supply, mechanism to contact the device under test,

and system software. Test system providers must have the technical ability to supply a wide range of these capabilities and integrate them into a single system. By collecting information through market research and patiently building relationships with customers, while accumulating advanced elemental technologies based on that information, Advantest has acquired an overwhelming technological superiority that our competitors cannot imitate.

#### Structure of Semiconductor Test Systems



#### Semiconductor Test Flow (Function Test)





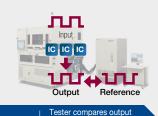
interface







Test head sends electrica signals to devices



signals from the devices to reference values and grades them as pass or fail.



devices according to test

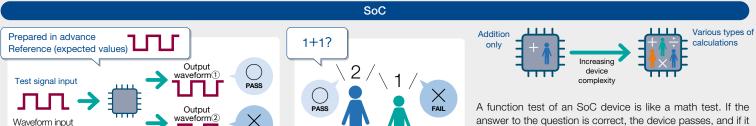
Our Technology In-Depth: Semiconductor Test Systems

#### **Types of Semiconductor Test**

There are various types of semiconductors, such as memory devices and SoC devices, for different applications, and each type has different functions. In semiconductor test, a wide variety of "function tests" are performed according to the functions of the device under test. In addition, "timing tests" and "electrical characteristic tests" are also performed.

#### **Function Test**

Various patterns are used to test whether the device operates as designed, depending on the functions of the device.



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#### A function test of an SoC device is like a math test. If the answer to the question is correct, the device passes, and if it is incorrect, it fails. In recent years, as devices have become more complex, testing has become more difficult.

#### Memory

A memory device function test checks whether "0" and "1" can be written/read to each memory cell (the smallest data storage unit). Since memory semiconductors are used to store data, every cell must be tested. As the capacity of memory devices increases, it is important for test systems to be able to efficiently "parallel test" many devices at the same time.

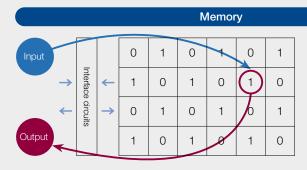
### **Timing Test**

While a function test checks whether the answer is correct, so to speak, a timing test checks whether the device can answer the question within the specified timeframe.

#### SoC

When judging whether a device is good or bad, it is important not only to ensure that it operates as designed, but also that it can operate at the expected speed.

SoC timing tests check whether the device operates within the speed range specified for the application of the device.



A memory timing test checks whether the timing of data output is within design specifications when the device is instructed (input) to read data from a specific cell.

#### **Electrical Characteristics Test**

#### Memory & SoC

One common electrical characteristic test is a "leakage test." Current is passed through the device to test whether the value of the current that leaks out (leakage current) is within the specified range.

Leakage current refers to current leaking out from an insulating part in an electronic circuit where current should not flow. With device miniaturization, wires are closer together and the insulation separating them is thinner, making leakage current more of a problem.

### The Devices We Test

Advantest's test systems are responsible for testing a wide variety of semiconductors produced by global customers. Our reliability guarantee supports the safety, security, and comfort of people's lifestyles worldwide.



#### Application processors

These devices symbolize the evolution of semiconductors and resulting smartphone performance gains. Application processor test is uniquely complicated due to the adoption of state-of-the-art semiconductor processes in their production, whilst manufacturers are also actively investing in test systems.



#### **Display driver ICs**

These ICs control the color and brightness of displays on products such as smartphones and televisions. In the display industry, technological evolution is driving rapid new developments such as the adoption of organic EL, larger screens, higher definition, narrower edges, and incorporation of touch sensors, so display driver IC test is becoming more complex.



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#### **Memory Semiconductors**

Semiconductors that store data include DRAM, which can read and write data at high speed, and NAND flash, which can hold data for a long time without a power supply. In recent years, demand from the smartphone and data center sectors has been increasing.



#### CMOS image sensors

These semiconductors convert camera images into digital data. In addition to the trends toward higher image quality and multi-lens cameras in smartphones, rapid progress in response to highspeed image data processing amidst growing demand for video has created new needs for higher test system performance.



#### **Power devices**

These semiconductors convert DC to and from AC and adjust voltage, among other functions. They have a wide range of applications in addition to consumer electronics, including automobiles, industrial equipment, and wind solar power generation. The power device market is expected to grow in the future amidst increasing public demand for lower power consumption.



#### **HPC** devices

This is a general term for semiconductors for high performance computing (HPC), which are designed to perform large-scale operations at high speed on data servers and Al servers. With the spread of Al, machine learning, and deep learning, the HPC device market continues to make yearly strides.



#### RF devices

Radio Frequency ICs handle wireless communications. Their main applications are smartphones and base stations. With the expansion of 5G into the millimeter-wave band, expectations are rising for test solutions that address these technological trends.



#### **Automotive Semiconductors**

This is a general term for semiconductors installed in automobiles, such as controllers for engines and batteries, sensors for airbags and collision avoidance systems. High quality and reliability that meet the safety standards of automobiles are required, so it is necessary to carefully test these devices.









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## 11 Year Financial Highlights

Advantest corporation and its consolidated subsidiaries. Each fiscal year beginning on April 1

		US	GAAP					IFRS				
		FY2012 (2013/3)	FY2013 (2014/3)	FY2014 (2015/3)	FY2015 (2016/3)	FY2016 (2017/3)	FY2017 (2018/3)	FY2018 (2019/3)	FY2019 (2020/3)	FY2020 (2021/3)	FY2021 (2022/3)	FY2022 (2023/3)
Financial Results												
Fiscal year	(Unit)											
Net sales	Million yen	132,903	111,878	163,803	162,111	155,916	207,223	282,456	275,894	312,789	416,901	560,191
Gross profit	Million yen	68,920	49,333	91,755	91,475	89,740	106,588	154,039	156,497	168,291	235,907	319,061
Selling, general and administrative expenses*1	Million yen	68,840	85,702	74,897	78,878	75,835	82,101	89,377	97,789	97,565	121,173	151,374
Operating income	Million yen	80	(36,369)	16,858	12,597	13,905	24,487	64,662	58,708	70,726	114,734	167,687
EBITDA*2	Million yen	8,143	(28,101)	21,588	17,562	19,063	29,511	69,629	69,600	82,482	129,702	189,083
Income (loss) before income taxes	Million yen	(1,293)	(35,501)	20,767	11,767	15,022	24,282	66,211	58,574	69,618	116,343	171,270
Net income (loss) attributable to owners of the parent	Million yen	(3,821)	(35,540)	16,753	6,694	14,201	18,103	56,993	53,532	69,787	87,301	130,400
Cash flows from operating activities	Million yen	(2,215)	(3,776)	24,481	7,728	15,833	28,254	44,792	66,475	67,830	78,889	70,224
Cash flows from investing activities	Million yen	(11,498)	(4,711)	(1,310)	(2,395)	(3,521)	(2,329)	(15,915)	(38,819)	(16,831)	(46,907)	(26,706)
Cash flows from financing activities	Million yen	(2,914)	27,202	(1,298)	(13,531)	(1,002)	(15,237)	(13,724)	(17,916)	(30,415)	(68,736)	(77,434)
Free cash flows*3	Million yen	(13,713)	(8,487)	23,171	5,333	12,312	25,925	28,877	27,656	50,999	31,982	43,518
Cash and cash equivalents at end of year	Million yen	45,668	68,997	97,574	85,430	95,324	103,973	119,943	127,703	149,164	116,582	85,537
Fiscal year-end	(Unit)											
Shareholders' equity	Million yen	141,241	116,252	101,810	93,619	109,517	124,610	198,731	231,452	280,369	294,621	368,694
Total assets	Million yen	225,515	229,856	233,237	210,451	231,603	254,559	304,580	355,777	422,641	494,696	600,224
Information per share	(Unit)											
Basic earnings (loss) per share	¥	-5.51	-51.02	24.04	9.59	20.27	25.49	75.59	67.53	88.47	112.39	174.35
Diluted earnings (loss) per share	¥	-5.51	-51.02	21.92	8.85	18.49	23.17	71.84	67.24	87.96	111.82	173.68
Shareholders' equity per share	¥	203.17	166.84	145.82	134.07	154.83	174.01	251.13	291.63	356.82	387.93	500.61
Dividend per share	¥	5.00	3.75	3.75	5.00	6.25	8.00	23.00	20.50	29.50	30.00	33.75
Number of shares issued at year-end		798,267,080.00	798,267,080.00	798,267,080.00	798,267,080.00	798,267,080.00	798,267,080.00	798,267,080.00	798,267,080.00	798,267,080.00	798,169,060.00	766,169,060.00
Management indicator	(Unit)											
Overseas net sales as a % of total net sales	%	89.4	89.1	92.0	92.0	88.2	93.2	94.7	94.6	95.5	96.1	96.3
Net sales per employee	Million yen	29.0	24.2	35.9	36.1	35.3	46.5	61.0	54.7	59.5	70.2	85.6
Gross profit margin	%	51.9	44.1	56.0	56.4	57.6	51.4	54.5	56.7	53.8	56.6	57.0
Operating Income Margin	%	0.1	(32.5)	10.3	7.8	8.9	11.8	22.9	21.3	22.6	27.5	29.9
Net income ratio	%	(2.9)	(31.8)	10.2	4.1	9.1	8.7	20.2	19.4	22.3	20.9	23.3
SG&A ratio to sales	%	51.8	76.6	45.7	48.6	48.7	39.6	31.6	35.4	31.2	29.1	27.0
R&D Expenses	Million yen	33,062	32,670	29,507	31,298	31,170	33,540	37,852	40,070	42,678	48,367	60,094
R&D as a % of total net sales	%	24.9	29.2	18.0	19.3	20.0	16.2	13.4	14.5	13.6	11.6	10.7
Capital Expenditures	¥100 million	126	56	42	40	48	54	66	99	137	180	250
Depreciation and Amortization	¥100 million	81	83	47	50	52	50	50	109	118	150	214
EBITDA margin*2	%	6.1	(25.1)	13.2	10.8	12.2	14.2	24.7	25.2	26.4	31.1	33.8
Cash conversion cycle	Day	172	192	143	163	186	137	132	162	134	136	178
Shareholders' equity ratio	%	62.6	50.6	43.7	44.5	47.3	49.0	65.2	65.1	66.3	59.6	61.4
ROE	%	(2.8)	(27.6)	18.5	6.9	14.0	15.5	35.3	24.9	27.3	30.4	39.3
Dividend payout ratio	%	_	_	15.6	52.2	30.8	31.4	30.4	30.4	33.3	26.7	19.4
Yen exchange rate	US Dollar	83	100	108	121	108	111	110	109	106	112	134
	Euro	105	133	140	133	119	129	129	121	123	130	140

<sup>\*1</sup> Selling, general and administrative expenses from the fiscal year ended March 31, 2015 are composed of selling, general and administrative expenses, restructuring and impairment charges.

<sup>\*4</sup> Advantest has issued a 4-for-1 stock split of common stock, effective October 1, 2023. The below information per share figures are based on the assumption that the stock split had been issued at the beginning of fiscal 2012.

	(Unit)	CY2012	CY2013	CY2014	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2021	CY2022
Global real GDP growth (Source: IMF)	%	3.5	3.4	3.5	3.4	3.3	3.8	3.6	2.8	-3	6	3.5
Worldwide semiconductor sales (Source: WSTS)	Billion US dollar	292	306	336	335	339	412	469	412	440	556	574
SoC tester market size (Source: Advantest)	Million US dollar	2,050	1,450	1,950	1,650	2,000	2,200	2,550	2,700	3,000	4,300	4,000
Memory tester market size (Source: Advantest)	Million US dollar	450	420	420	470	470	750	1,150	650	1,200	1,300	1,200

<sup>\*2</sup> EBITDA= Operating income + Depreciation and amortization, EBITDA margin = EBITDA/Sales

<sup>\*3</sup> Free cash flows= Cash flows from operating activities + Cash flows from investing activities

ADVANTEST Integrated Annual Report 2023 Contents ▶ Summary Value Creation Sustainability Information

## Sustainability Accounting Standard Board (SASB) Reporting

Advantest corporation and its consolidated subsidiaries. Each fiscal year beginning on April 1

The Advantest Group reports sustainability related information based on the Sustainability Accounting Standards Board (SASB) standards.

	<b>**This table can be downloaded by CSV format.</b>
<u> </u>	https://www.advantest.com/sustainability/esg/sasb2023en.csv

TOPIC	ACCOUNTING METRIC	SASB Code	CATEGORY	UNIT OF MEASURE	FY2016 (2017/3)	FY2017 (2018/3)	FY2018 (2019/3)	FY2019 (2020/3)	FY2020 (2021/3)	FY2021 (2022/3)	FY2022 (2023/3)
	(1) Gross global Scope 1 emissions	TC-SC-110a.1	Quantitative	Metric tons(t) CO2-e	3,838	3,825	4,685	4,485	3,811	3,753	3,449
Greenhouse Gas Emissions	(2) Amount of total emissions from perfluorinated compounds	TC-SC-110a.1	Quantitative	Metric tons(t) CO2-e	940	339	290	344	629	899	999
	Short-term and long-term Scope 1 emissions: strategies, goals, progress	TC-SC-110a.2	Discussion and Analysis	-		gies, goals, and p				efer to:	
	(1) Total energy consumed	TC-SC-130a.1	Quantitative	Gigajoules (GJ)	736,049	770,427	844,021	887,837	956,119	996,766	1,003,815
Energy Management in Manufacturing	(2) Percentage grid electricity	TC-SC-130a.1	Quantitative	%	79	79	79	66	52	44	35
	(3) Percentage renewable	TC-SC-130a.1	Quantitative	%	13	13	12	28	44	54	63
	(1) Total water withdrawn	TC-SC-140a.1	Quantitative	Thousand cubic meters (m³)	288	249	280	261	250	236	242
Water management	(2) Total water consumed	TC-SC-140a.1	Quantitative	Thousand cubic meters (m³)	172	127	119	112	107	106	129
	Total Percentage of each in regions with High or Extremely High Baseline water stress	TC-SC-140a.1	Quantitative	%	0	0	0	0	0	0	0
Waste	(1) Amount of hazardous waste from manufacturing	TC-SC-150a.1	Quantitative	Metric tons (t)	7.6	6.4	10.1	11.9	28.5	8.4	18.1
Management	(2) Percentage recycle	TC-SC-150a.1	Quantitative	%	73.8	100.0	100.0	99.9	91.1	71.9	86.8

Sustainability Accounting Standard Board (SASB) Reporting

TOPIC	ACCOUNTING METRIC	SASB Code	CATEGORY	UNIT OF MEASURE	FY2016 (2017/3)	FY2017 (2018/3)	FY2018 (2019/3)	FY2019 (2020/3)	FY2020 (2021/3)	FY2021 (2022/3)	FY2022 ( <b>2023/3</b> )
Employee	Description of efforts to assess, monitor, and reduce exposure of employees to human health hazards	TC-SC-320a.1	Discussion and Analysis	-		nagement for th w.advantest.com			oyees, please re	fer to:	
Health & Safety	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	TC-SC-320a.2	Quantitative	¥	957,552	0	0	0	0	0	0
Recruiting	Percentage of employees that are										
& Managing a Global & Skilled	(1) Foreign nationals	TC-SC-330a.1	Quantitative	%	8	8	8	9	8	7	8
Workforce	(2) Located offshore	TC-SC-330a.1	Quantitative	%	0	0	0	0	0	0	0
Product	Percentage of products by revenue that contain IEC 62474 declarable substances	TC-SC-410a.1	Quantitative	%	81	85	89	85	91	91	92
Lifecycle Management	Processor energy efficiency at a system-level for: (1) servers, (2) desktops, and (3) laptops	TC-SC-410a.2	Quantitative	Various, by product category				n/a	,		
Materials	Description of the management of risks associated with the use of critical materials	TC-SC-440a.1	Discussion and Analysis	-		nagement for th w.advantest.con			e refer to: nanagement.htm		
Intellectual Property Protection & Competitive Behavior	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	TC-SC-520a.1	Quantitative	¥	0	0	0	0	0	0	0
Total production		TC-SC-000.A	Quantitative	Output	1,116	1,891	2,270	2,065	2,336	3,082	3,467
Percentage of production from owned facilities		TC-SC-000.B	Quantitative	%	39	45	53	39	43	11	10

## **External Recognition**

## **Recognition by Rating Agencies**

#### Received "AA" Rating in MSCI ESG Ratings



Advantest received an "AA" rating in the 2023 MSCI ESG Ratings. This constituted an upgrade from the previous "A" rating.

#### Selected for S&P Sustainability Yearbook 2023



Advantest was selected for inclusion in the S&P Sustainability Yearbook 2023, which recognizes companies with ESG evaluation scores within the top 15% of their industries.

## Graded "A-" in the CDP Climate Change Report / Selected as "CDP Supplier Engagement Leader"



Advantest was graded A- in the CDP Climate Change Report 2022. CDP is an international not-for-profit charity that runs a global disclosure system for investors, companies, nations, regions, and cities to manage their environmental impacts. CDP surveys companies and cities on their

their environmental impacts. CDP surveys companies and cities on their environmental protection practices for climate change, water source protection, forest preservation, and so on, and discloses the assessment results to investors.

Advantest has also been selected as a "Supplier Engagement Leader" in CDP's Supplier Engagement Rating (SER). CDP's SER recognizes companies that have excelled in addressing climate change throughout their supply chains, and our ratings show that we were highly evaluated for our preemptive efforts in cooperation with our suppliers in addressing issues on climate change.

### Inclusion in Investment Indexes

#### Selected as A Constituent Stock of DJSI Asia Pacific

Member of
Dow Jones
Sustainability Indices
Powered by the S&P Global CSA

Advantest was selected as a constituent stock of the Dow Jones Sustainability Asian Pacific Index (DJSI Asia Pacific), which is operated by S&P Dow Jones Indices in the United States. The Dow Jones Sustainability Indices (DJSI) are composed of companies selected for their excellent sustainability performance on both general and industry-specific criteria. Since their launch in 1999, the DJSI has been recognized worldwide as an important indicator of corporate sustainability performance.

#### Selected for FTSE4Good Index Series



FTSE4Good

Advantest has been selected as a constituent stock of the FTSE4Good Index Series.

Designed by FTSE Russell to measure the performance of companies that demonstrate strong Environmental, Social, and Governance (ESG) practices based on diverse relevant criteria, the FTSE4Good Index Series is a major index series used to create and assess sustainable investment funds and other financial products.

#### Selected as A Constituent of the FTSE Blossom Japan Index



FTSE Blossom Japan Index Advantest has been selected as a constituent stock of the FTSE Blossom Japan Index.

The FTSE Blossom Japan Index was designed by FTSE Russell to measure the performance of Japanese companies that demonstrate strong ESG practices.

#### Selected as A Constituent Stock of FTSE Blossom Japan Sector Relative Index



FTSE Blossom Japan Sector Relative Index Advantest has been selected as a constituent stock of the FTSE Blossom Japan Sector Relative Index.

The FTSE Blossom Japan Sector Relative Index is a performance benchmark created by global index provider, FTSE Russell, which reflects the performance of Japanese large-cap and mid-cap stocks that demonstrate outstanding Environmental, Social and Governance (ESG) practices relative to their respective sectors and is designed to be sector neutral.

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#### Selected as A Constituent Stock of the MSCI Japan ESG Select Leaders Index

2023 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX

Advantest was selected as a constituent stock of the MSCI JapanESG Select Leaders Index.

The MSCI Japan ESG Select Leaders Index is a weighted index based on the MSCI Japan IMI Index, its parent index, designed to represent the

performance of companies that excel in Environmental, Social, and Governance (ESG) performance relative to the peers, with a target market capitalization of 50% of each Global Industry Classification Standard (GICS®) industry sector.

#### Selected as A Constituent Stock of the S&P/JPX Carbon Efficient Index



Advantest was selected as a constituent stock of the S&P/JPXCarbon Efficient Index.

The S&P/JPX Carbon Efficient Index is designed to measure the performance of companies in the TOPIX, a stock price index representative of trends in the Japanese market, while weighting constituent companies on sufficient environmental disclosure and carbon efficiency (carbon emissions per unit of revenue) within the same industry.

#### Selected to be part of the SOMPO Sustainability Index



Advantest has been selected as a constituent stock of the SOMPO Sustainability Index.

The SOMPO Sustainability Index selects approximately 300 companies each year based on ESG criteria and their equity value. This index was created by SOMPO Asset Management for "SOMPO Sustainable Management," an investment product for pension funds and institutional investors.

## Recognition and awards for our activities

## Advantest Named THE BEST Supplier of Chip Making Equipment and #1 ATE Supplier for 4th Consecutive Year from TechInsights





In the Techlnsights (formerly VLSIresearch) Customer Satisfaction Survey, Advantest captured the No.1 spot of global semiconductor companies for the fourth consecutive year. The company was also named on the 10 BEST Suppliers list of large suppliers of test equipment for the 35th consecutive year.

The TechInsights Customer Satisfaction Survey is the industry's only available opportunity since 1988 to receive feedback from semiconductor manufacturers.

It evaluates and ranks equipment manufacturers based on 14 items in three key factors of customer service, supplier, and equipment performance.

#### Advantest Receives "White 500" Certification from METI for 4th Consecutive Year





Advantest has been recently recognized under the 2023 Certified Health & Productivity Management Outstanding Organizations Recognition Program, which is jointly implemented by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi (Japan Health Council), as one of the organizations in the large enterprise category. At the same time, METI has certified Advantest as one of the "White 500"--the top 500 corporations recognized under the program--for the third consecutive year. This year for the first time, all seven of Advantest's domestic subsidiaries were certified.

Ever since the formulation of the Declaration of Health and Productivity Management Policy in September 2019, Advantest has been working together with domestic subsidiaries, health insurance unions, and labor

unions to encourage employees to get health checkups, improve the adoption rate of specific health guidance, and implement mental health measures. In addition, the company has built up a portfolio of activities that directly affect the health of employees and their families, such as online diet and smoking cessation programs, exercise promotion using health promotion apps, and health literacy education.

Advantest actively promotes support programs for balancing work and private life. We have acquired "Certification level 2 (two stars)" of the "Eruboshi" certification based on the Act on Promotion of Women's Participation and Advancement in the Workplace in November 2020, and was also granted the "Kurumin" certification based on the "Act on Advancement of Measures to Support Raising Next Generation Children" in February 2021. Followed by the spread of COVID-19, top management sent out the message that employee health should be made a priority, and has been taking thorough measures to prevent the spread of infection including the enhancement of remote work productivity.

Advantest, the Japan Health Insurance Association, and our labor union will continue to work together to promote health management activities so that our employees, who are the company's greatest asset, can enjoy the best of physical and mental health, have abundant vitality, and maximize their abilities.

## Awarded as a "Best employers in the category of "Information Technology and Communication""(Germany Great Place to Work®)





Advantest Europe GmbH (AEG) has been recognized in the Great Place To Work® competition as one of top ten best employers in the category "Information Technology and Communication".

The award is by Great Place to Work®, a global survey institution, to evaluate the workplace culture of companies of various sizes in all industries. The companies are ranked on workplace culture based on credibility, respect, appreciation, team spirit, and unity between the company and its employees.

AEG was also ranked sixth in "Bavaria's Best Employer"

(Bavaria: AEG Headquarters = Munich and Amerang Offices).

## Corporate Overview / Stock Information (As of March 31, 2023)

## **Corporate Overview**

Registered Name: ADVANTEST CORPORATION Head Office: Shin Marunouchi Center Bldg.,

1-6-2, Marunouchi, Chiyoda-ku, Tokyo 100-0005

Established: December 1954 Capital: 32,363 million yen

Stock Exchange Listings: Tokyo Stock Exchange,

Prime Market (Securities Code: 6857)

Number of Employees: 7,117 (Include temporary employees.)

Business Description: Semiconductor and Component Test System Business,

Mechatronics System Business, Services, Support and Others

## **Major Shareholders**

Name	Number of Shares (in thousand)	Percentage of Ownership (%)
The Master Trust Bank of Japan, Ltd. (trust account)	61,338	33.26
Custody Bank of Japan, Ltd. (trust account)	28,274	15.33
STATE STREET BANK WEST CLIENT - TREATY 505234	3,201	1.73
HSBC HONGKONG-TREASURY SERVICES A/C ASIAN EQUITIES DERIVATIVES	2,938	1.59
NORTHERN TRUST CO. (AVFC) RE NON TREATY CLIENTS ACCOUNT	2,821	1.53
STATE STREET BANK AND TRUST COMPANY 505225	2,041	1.10
SSBTC CLIENT OMNIBUS ACCOUNT	1,899	1.03
BNYM FOR GOLDMAN SACHS JAPAN	1,861	1.00
DZ PRIVATBANK S.A. RE INVESTMENTFONDS	1,691	0.91
STATE STREET BANK AND TRUST COMPANY 505103	1,644	0.89

(Notes) 1. The number of treasury shares (9,209 thousand shares) that Advantest owns does not include Advantest shares which the Board Incentive Plan Trust owns (89 thousand shares) and Advantest shares which the Employee Stock Ownership Plan Trust owns (335 thousand shares).

- 2. Number of Shares is rounded down to the nearest thousand
- 3. Percentage of Ownership is calculated excluding treasury shares.

### **Stock Information**

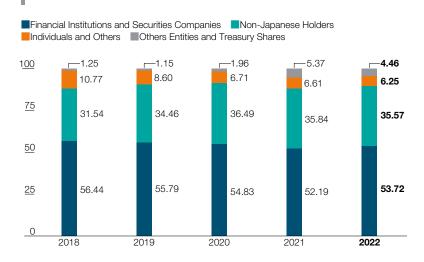
Fiscal Year: April 1 through March 31

Ordinary General Meeting of Shareholders: June

Issuable Shares: 1,760,000,000 (As of October 1, 2023) Issued Shares: 766,141,256 (As of October 1, 2023)

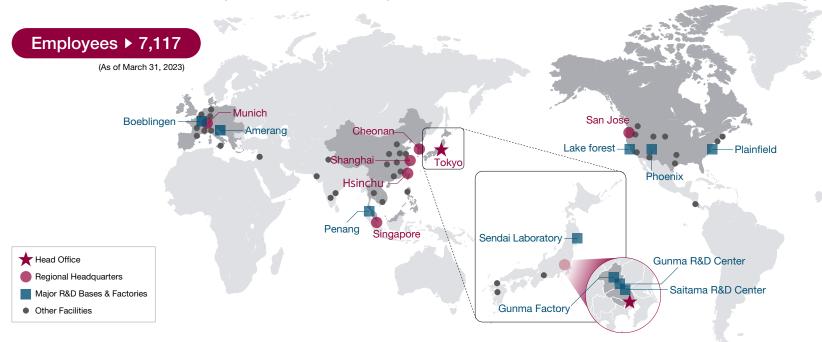
Number of Shareholders: 31,841

### **Breakdown of Shareholders**



## Our Global Network

Advantest has R&D facilities in Japan, Germany, and the United States. Most of our sales and service locations are in Asia, including locations in Taiwan, South Korea, and China. In the semiconductor industry, the global division of labor means that the design, wafer, and packaging processes for a single semiconductor are often handled by separate companies in different locations worldwide. Our sales, R&D, and service departments around the world form cross-regional teams to provide global, one-stop support for customer value chains, from design to mass production.



**Contents** ▶

#### Major Subsidiaries

Region	Name	Location
Americas	Advantest America, Inc.	California, U.S.A.
Europe	Advantest Europe GmbH	Munich, Germany
Southeast Asia	Advantest (Singapore) Pte. Ltd.	Singapore
South Korea	Advantest Korea Co., Ltd.	Cheonan, Korea
Taiwan	Advantest Taiwan Inc.	Hsinchu, Taiwan
China	Advantest (China) Co., Ltd.	Shanghai, China

#### Other Subsidiaries

Region	Name	Location	Business
Japan	Advantest Kyushu Systems Co., Ltd.	Kitakyushu, Fukuoka	Development, sales and support of the company's products
Japan	Advantest Laboratories Ltd.	Sendai, Miyagi	Research and development of measuring and testing technologies
Japan	Advantest Component, Inc.	Sendai, Miyagi	Development and manufacturing of parts for Advantest products
Japan	Advantest Green Corporation	Oura-gun, Gunma	Environmental management and greening services for Advantest's business locations (Advantest Green is a special subsidiary that promotes the employment of people with disabilities)
Americas	Advantest Test Solutions, Inc.	California	Design and sales of system-level test products
Americas	Essai, Inc.	California	Design, manufacturing, and sales of test sockets
Americas	R&D Altanova, Inc.	New Jersey	Design, manufacturing, and sales of test interface boards
Europe	CREA - Collaudi Elettronici Automatizzati S.r.l.	Piedmont, Italy	Design, manufacturing, and sales of test equipment for power semiconductors
Southeast Asia	Advantest (M) Sdn. Bhd.	Penang, Malaysia	Manufacturing of Advantest products