

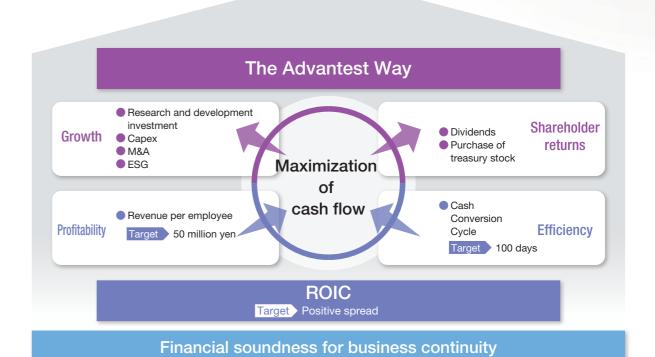
#### Approach to Basic Financial Policy

Our financial model is, first and foremost, to build a stable financial foundation, and from there, to utilize the concept of return on invested capital (ROIC) to maximize cash earnings for growth investments and shareholder returns. In addition, our accounting system supports this model by utilizing a pooling system that collects funds at headquarters, using a system that assigns a system code to each Group company around the world, and expanding the accounting organization globally by function. This enables speedy utilization of funds, information collection, and effective decision making. Apart from these accounting aspects, the value created by strategies for securing and reinforcing management assets and intangible assets, such as investment in human capital and the creation of internal and external organizations, is increasing in importance. Leveraging not only the capabilities of the accounting department, but also the broad experience of staff in Human Resources, General Affairs, and other departments, we place emphasis on these non-financial elements of corporate value, and consider diverse ways of thought, reflecting the importance we place on our intangible assets such as people and intellectual property, while perpetually seeking the best approach to improve the corporate value of Advantest, and implementing strategies that meet the needs of the moment, including ESG man-

#### **COVID-19 Financial Response**

At the beginning of 2020, we were in a position to estimate that we might exceed fiscal 2018's record high sales in fiscal 2020, but the worldwide spread of the COVID-19 pandemic changed the economic situation so drastically that by spring it had become difficult to issue even a

### Enhance corporate value



six-month forecast. Every day we seem to hear that another company is seeking to raise money, and Advantest has also conducted various risk simulations in light of our past experience, including an examination of financing under the worst-case scenario and our commitment lines, but so far we have not needed to take any urgent financing measures, nor have we had to review our policy on growth investments targeting future business expansion such as R&D investment, capital investment, and additional hiring. Of course, it is necessary to take measures in response to the short-term economic downturn we are now experiencing, but in terms of our financial status, our ability to continue growth investments from a long-term perspective, in accordance with the outlook set forth in our "Grand Design" that the semiconductor industry will grow despite short-term fluctuations, has been strongly supported by the sound financial structure that enabled us to obtain an "A" credit rating. This financial model was based on the financial model shaped, above all, by our experience of past silicon cycles, when we made a point of continuing business as usual even during downturns. In this era. when in addition to COVID-19 and US-China conflict, natural disasters once considered to be rare occur with depressing frequency, I believe sustainable management

requires a higher than normal level of working capital. Growth investment is still needed to achieve the goals of our Grand Design, especially in terms of securing human resources by increasing our headcount, so we must pay attention to changes in our sales-per-employee ratio while preserving a balance between the increase in fixed costs and our profit margin. In the future, I will strive to further improve the functionality of our financial model.

#### **Current Financial Quantitative Challenges**

As a milestone towards our mid- to long-term goals, we have set a profit and loss model with sales at the ¥300 billion level. In fiscal 2018 and fiscal 2019, our gross profit margins were 54.5% and 56.7%, respectively, exceeding the model's target of 54%, but SG&A expenses (including other income/expenses) were 31.6% and 35.4% of sales, respectively, with an especially significant increase seen in fiscal 2019. We recorded temporary depreciation expenses as part of our M&A accounting, and other factors included expenses related to M&A and securing human resources and aggressive capital investment for growth. However, due to the characteristics of our business, investments in human capital including the hiring of

engineers who support our relationships with customers, and investments in R&D aiming to enhance our broad product lineup, are the source of our competitiveness, and are essential to achieve the ¥400 billion sales target of our Grand Design. It is also necessary to proactively invest in IT with an eye to the digital transformation, which is expected to hit a tipping point in 2025. We will build a muscular cost structure in line with our target model by evaluating cost-effectiveness to ensure that our investments stay on target, the returns on our growth investments are in line with our original expectations. We are not just continuing to spend money in traditional ways without considering returns, as well as structuring our budgets on a complete zero basis, without reference to past perfor-

#### Effects of ROIC Introduction & Further **Embedding the ROIC Metric in Operations**

At the same time as we announced our mid-term management plan in April 2018, we introduced a ROIC evaluation system for our business. This requires positive equity spreads not only at the corporate level, but also at the level of individual business divisions, and forces us to pay more attention to the profits and losses of individual businesses than before. I feel that we have taken a step forward within the company from the perspective of effective

utilization of assets. For example, awareness of potential excess inventory has taken root very strongly in each division, and employees have come up with new methods of visualization and discussion to improve cost-effectiveness. In this industry, where boom follows bust in quick succession, it is not easy to determine the most appropriate level of inventory assets, but we are working to minimize inventory risk by, among other things, using computer simulations. From the time of planning for fiscal 2020, we set a KPI for profit efficiency based on the personnel and profits and losses of each business division, and are seeking to further improve efficiency by incorporating a resource-based management perspective that encourages people to consider the appropriateness and utilization of human assets. In the future, I would also like to improve on our past tendency to conduct such evaluations of businesses on the basis of single-year figures. We will also incorporate items such as profit carryover and loss, as well as placing a little more emphasis on our balance sheet perspective, which includes an awareness of asset efficiency, while planning to embed measures that allow actions to be taken on businesses that do not have positive equity spreads and on products that are factors in this by making evaluations for a given period a little more visible. In addition, by evaluating the cash conversion cycle (CCC) for each business division, rather than simply focusing on asset reduction/efficiency, I hope to

help achieve our company-wide CCC target values, and as a result of this, improve the effectiveness of our financial model, which will in turn improve the company's cash flow and lead to further growth and higher shareholder returns. From the perspective of CCC, the future growth of the company and achievement of our Grand Design goals is strongly influenced by how well we can reallocate cash with a low return rate to businesses with higher returns and growth, while keeping safety in mind, by reducing required levels of working capital. As a result of these policies, in July we decided to sell our probe card business, which had been operating mainly in the United States. Hitherto, Advantest has repeatedly acquired businesses and companies through M&A, but we have rarely taken on the role of seller. In addition to evaluating our numbers using ROIC, we will review our business portfolio to ensure that each component supports our overall business from a medium- to long-term perspective, and further improve business efficiency to improve corporate value.

#### My Approach to Shareholder Value Improvement & Returns

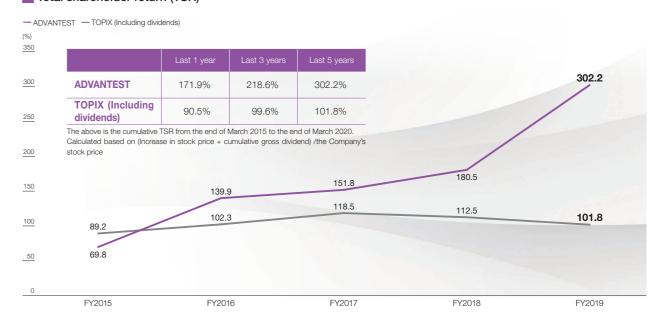
In the past two years, fiscal 2018 and fiscal 2019, Advantest has achieved high returns on equity (ROE) of 35.3% and 24.9%, respectively, significantly exceeding the 18% target of our mid-term management plan. While this is

partly supported by expectations for the semiconductor sector overall, our total shareholder return (TSR) is far above the TOPIX average. Guided by our belief that our industry environment is still in the midst of a growth phase, we will consider shareholder returns in balance with our investment goals, based on the fact that a ROE continuously exceeding cost of capital in the medium to long term leads to improvement in shareholder value. Regarding dividends, we will maintain a payout ratio of 30%, linked to half-year consolidated business results, similarly to employee bonuses. Regarding share repurchase, in July we voluntarily repurchased our own stock for the first time in 13 years, taking into consideration the possibility that we will exceed the targets of our mid-term management plan. This was not done in the expectation of a short-term bounce in our stock price. It was based on our view that future profit might weigh down our ROE as a result of excess capital accumulation. We will continue to improve shareholder value from a medium- to long-term perspec-

#### P/L model on a level of 300 billion yen in sales for achieving mid/long-term targets



#### Total shareholder return (TSR)



46%

340

60

400

### Mid-Term Management Plan and Results

To achieve the goals of the "Grand Design" mid- to long-term management policy we announced in April 2018, we started by establishing a mid-term management plan that set issues and targets for the first three years of the Grand Design (FY2018-2020). How did we do in the first two years of the mid-term management plan?

#### KPI of the Mid-Term Management Plan (three years average)

	Conservative Scenario	Base Scenario
Sales	230.0B yen	250.0B yen
Operating Profit Margin	15%	17%
ROE	15%	18%
EPS	¥135	¥170



- Industry's No. 1 product portfolio
- Industry's No. 1 customer base
- Comprehensive solution capabilities including test peripherals, and global support capabilities

#### Mid-Term Management Plan 2018-19 Results

	2018 - 19 average	vs. Objectives (Base Scenario)
Sales	279.2B yen	+11.7%
Operating Profit Margin	22%	+5points
ROE	30%	+12points
EPS	¥286	+¥116

Mid-Term Management Plan (Progress) 2018 - 19 (2-Year Average)

#### Mid- to Long-Term Measures and Results

Expanding business to adjacent markets SLT business and Data analytics via M&A and partnership

Strategic changes in internal organization Global integration of tester R&D Launch of ARTeam

Production reforms

Promotion of Design for Supply Chain

ROIC-based business evaluation and portfolio review

Probe card business sale

Human resource development and resource enhancement

Strategic reinforcement of SE / AE. 200 engineers hired per year

Updating of corporate philosophy and code of conduct

The Advantest Way

Shareholder returns

Maintain a half-yearly 30% payout ratio Repurchase of treasury stock

\*ARTeam: Applied Research & venture Team

#### Adding Customer Value in an Evolving Vision Semiconductor Value Chain Six Commitments 1 Be the No. 1 provider of test and 4 Attract and retain the best talent in the measurement solutions industry 5 Learning organization 2 Partner with leading-edge customers 3 Develop leading-edge technology 6 Improve financial KPI and increase corporate Unit: Billion ver Four strategies Reinforce core businesses, invest strategically Sales (base scenario) 580 Tester market:

2027

(year to achieve goals of Grand Design)

#### Our Scenarios (Premises of the Mid-Term Management Plan)

Advantest believes that the demand for semiconductor manufacturing equipment inevitably fluctuates each year. Therefore, our targets are three-year averages. First of all, regarding our tester market growth rate assumptions, we prepared two scenarios: a "conservative scenario" with annual growth of 0% and a "base scenario" with annual growth of 4%. The latter scenario is used in our Grand Design. According to our research, the market contracted in CY2018 to about ¥400 billion, and in CY2019 it shrunk to about ¥370 billion due to memory inventory adjustments. In addition, the market in CY2020 is expected to be flat year-on-year at approximately ¥370-380 billion, due to the impact of the COVID-19 pandemic and trade friction between the United States and China. Despite our market environment has fluctuated up and down, Advantest's results for the past two years have exceeded the "base scenario" by a significant margin.

#### Two Years in which Advantest's Strengths Were Exercised to the Fullest

In FY2018, strong demand for testers continued for the full year in response to rising demand from the AI, data center, and smartphone sectors for higher semiconductor performance and enhanced reliability assurance. In FY2019, there was a phase of inventory adjustment centered on memory devices, but SoC-related demand more than compensated, enabling Advantest to set a new record for annual orders for the second consecutive year. We recognize that the following three strengths we have cultivated over the years have supported our successes in this market environment:

- Industry's No. 1 product portfolio
- Industry's No. 1 customer base
- Comprehensive solution capabilities including test peripherals, and global support capabilities

These advantages enabled our two-year average results to significantly exceed the "base scenario" for all four KPIs set forth in our mid-term management plan. It is difficult to forecast the market environment in CY2020, the final year of the plan, but our full-year forecast as of July 2020 indicates that it is possible for us to achieve the targets of our mid-term management plan.

2 Seek operational excellence

4 Pioneer new business fields

3 Explore value to reach a higher level

#### Mid- to Long-Term Measures

Despite large and continuing short-term demand fluctuations, we believe that demand for semiconductor test will continue to grow in the medium to long term, as in the scenario set forth in our Grand Design. In order to capture these future business opportunities and achieve the goals set in the Grand Design for 2027, we have developed various mid- to long-term measures over the last two years, including business expansion into adjacent markets via M&A and

business alliances, consolidation and shuttering of unprofitable businesses based on ROIC evaluation, global integration of R&D operations, launch of the "ARTeam" that conceptualizes new businesses based on the utilization of AI and data analytics, product development centered on DfSC (Design For Supply Chain), and construction of a production system that is resistant to fluctuations in demand and supports effective BCP. (See the figure P.31.)

Advantest's market share:

Sales (existing businesses):

Sales (new businesses):

Sales (total):

We see our mid-term management plan as focused on achieving the long-term goals of our Grand Design, and as such it is shaped by the issues and priority measures necessary to achieve those goals. In other words, it is the role of the mid-term management plan to lay the groundwork for winning business in future. We consider that the first two years of the plan have developed strong traction towards that ob-

### **Business Portfolio**





Engineers all over the world support the installation, maintenance and repair of customer systems to improve utilization ratios and throughput.









### Test Systems

front-end, back-end

Device Manufacturer)



#### System level test processes





#### Nanotechnology Products

Electron beams are used to draw and measure semiconductor circuits. These tools contribute to the design evaluation of advanced semiconductors and are used in front-end processes that require extremely small-scale, precise work.





#### Device Interfaces

Device interfaces are jigs that connect semiconductors to test systems electrically and mechanically. These extremely high precision products are consumables that must be changed every time a different type of device is tested.

#### Test Handlers

In back-end processes, test handlers transport semiconductors to test systems at high speed. Temperature is applied in line with the requirements of the test to be performed, and devices are automatically sorted into "good" and "defective" trays according to the test results.



#### System Level Test Systems

Semiconductors are tested at the level of system operation. This business is expected to grow in response to increasingly complex

Customers for

IDM (Integrated

**Each Process** 

Fabless

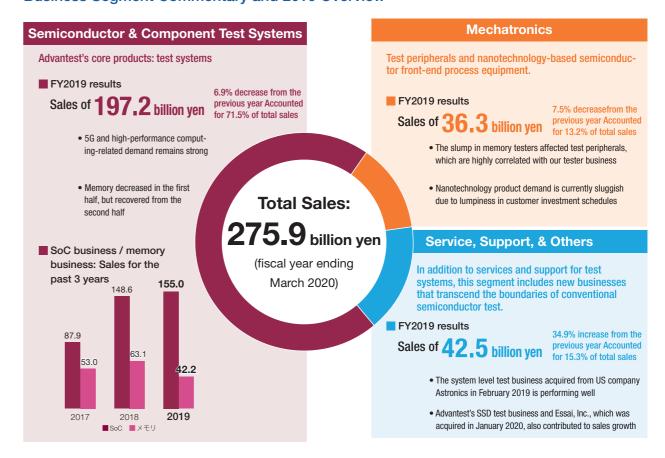
**Foundries** 

OSAT (Outsourced Semiconductor Assembly and Test)

#### **Target Devices of our Test Business**

Tester	Main Target D	evices	Device functions / applications	Test business growth factors	FY2018~FY2019 results
	Mobile ICs		Control smartphones, reception and transmission of radio waves at communication base stations, etc.	Spread of 5G, Improved performance of smart-phones, expansion of base stations, etc.	© Continuing strong de- mand due to widespread adoption of 5G and im- proved performance of smartphone processors
	ICs for high computing	n performance	Carry out high-speed calculations on computers and data servers	Popularization of AI and deep learning will increase data traffic	O In addition to expanding applications for AI and deep learning, data center investment will recover in FY2019
SoC Test Systems	Power Sen	niconductor	Rectification and amplifi- cation of current, switch- ing, etc. Installed in all electronic devices	Power saving needs Automotive electrification	○→△ Automobile demand has a knock-on impact on the automotive semiconduc- tor business
	CMOS Ima	ige Sensors	Convert camera images to electronic data.	Increasingly installed in smartphones and automobiles	O This business will grow due to innovations such as compound eyes for smart- phones
	Display Dri	ver ICs	Control images on displays	Popularization of new tech- nologies such as touch displays and slim bezel	
Memory Test Systems	Memory (C volatile me	PRAM Non- mory)	Store data and read it when in use. many electronic devices	Increased data traffic New data servers High functionality of smart phone	△→○ Inventory adjustments ended in the first half of 2019, and this market returned to positive from the second half of 2019.

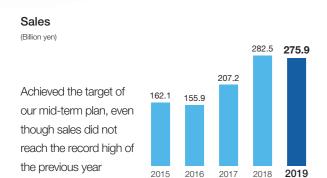
#### **Business Segment Commentary and 2019 Overview**



### Consolidated Financial and Non-Financial Highlights

For each fiscal year beginning on April 1st

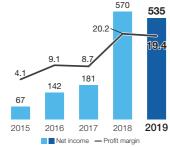
#### **Financial Highlights**



#### Net income / Profit margin

(100 million yen /%)

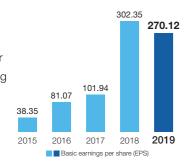
Net income exceeded 50 billion yen for the second consecutive year



Sales

#### Basic earnings per share (EPS)

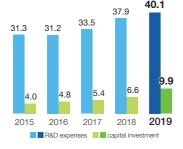
Despite a year-on-year decline, EPS is trending solidly upward in the medium term



#### R&D expenses / capital expenditures

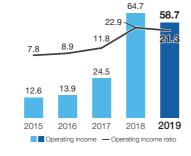
(Billion yen / billion yen)

Even if sales decline, Advantest aggressively invested in future growth



#### Operating income / Operating income ratio

Maintained an operating margin of over 20%



#### Total assets / shareholder equity / ROE

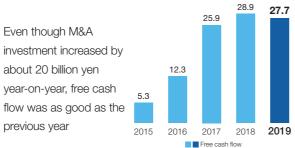
(100 million yen / 100 million yen /%)

Achieved a high ROE despite a significant increase in shareholder equity

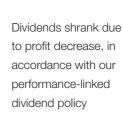


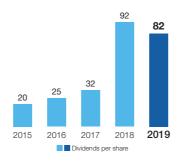
#### Free cash flow

(Billion yen)



#### Dividends per share

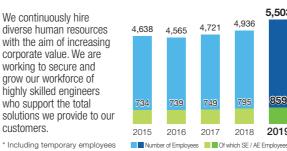




#### Non-financial highlights

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

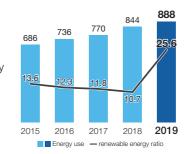
(Number / %)



### Energy usage / renewable energy ratio

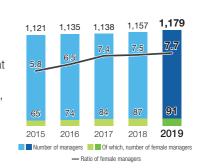
(TJ / %)

We actively work to reduce greenhouse gas emissions by efficiently using energy and introducing renewable energy sources.



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

Advantest values diverse perspectives and promotes a corporate culture that allows any individual to play an active role, regardless of race, gender, age, nationality, etc.

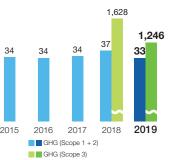


#### GHG (Scope 1 + 2, and Scope 3) CO<sub>2</sub> emissions

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

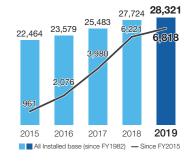
We are quantifying greenhouse gases indirectly emitted in our value chain and promoting greenhouse gas emission reduction activities for climate change mitigation and adaptation.





### Installed Base of Major Semiconductor Test Product (Cumulative)

Our strength in the semiconductor tester market rests on our customer base, the best and broadest in the industry. The top 20 semiconductor manufacturers in the world by sales all use Advantest's flagship products. Currently, our installed base numbers more than 28,000 test systems and handlers, and of these, 6,818 units have been installed in the five years since FY2015 alone, representing an unmatched rate of growth.



#### **Promotion of Diverse Human Resources**

The Advantest Group jointly seeks globalization and localization. By unifying our qualification system and personnel evaluation system globally, and by establishing a single global standard for bonuses as an incentive for profit sharing, as well as a compensation system linked to global performance, we encourage employees to consider the profitability of the entire company rather than just their own country or region. In terms of localization, 10 out of 24 executive officers (42%, as of end of June, 2020) of are foreign nationals who implement management practices based on local culture and customs at our key overseas locations.

# Becoming a 100-Year Company



Koichi Tsukui Managing Executive Officer Leader, ATE Business Group

### Semiconductor Complexity From the **Perspective of Test**

Accelerated by the evolution of semiconductor design and manufacturing technology, the digital transformation, including the rapid commercialization of 5G and Al. has given rise to a major inflection point in the semiconductor industry. The ongoing miniaturization of semiconductor processes has driven gains in semiconductor cost-effectiveness, complexity, functionality, and performance. For example, devices with more than 10 billion transistors, 3D devices with more than 100 layers, and heterogeneous devices integrating more than 10 different types of functions are now being developed. Furthermore, the relationship between hardware and software has been strengthened, so that a device operates as if it were a system. Supply chains now also involve the collaboration of multiple teams responsible for design, wafer manufacturing, package assembly, IP, and more. The digitization of

society is driving heightened expectations for semiconductors at an accelerating pace, which means that customers must now achieve Time to Market, Time to Volume, and Time to Quality in shorter times than ever before. This has become a major issue for them, leading to requirements to test more items in the same amount of time, and an increase in test difficulty. In addition, there are now more test requirements that cannot be covered by conventional test methods. It is essential to strengthen test technology to ensure reliability by utilizing new methods such as system level test.

#### Test Solutions for Comprehensive End-to-**End Coverage**

To solve these issues and add customer value, Advantest is expanding our business domains from our current core business of semiconductor mass production test to design/evaluation processes and new system level test

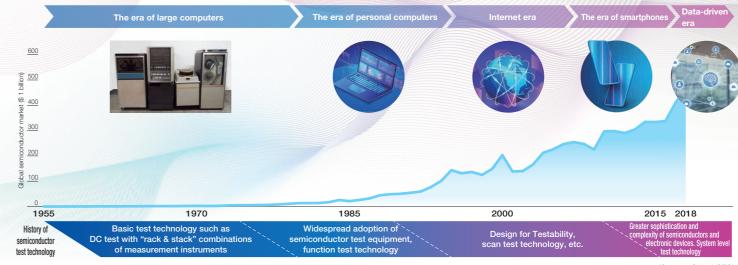
**R&D Priority Strategies** 

# Redefining Semiconductor Test

#### Technology for Measuring the Future

Our management philosophy of supporting leading-edge technology is both a source of pride for the R&D division and a great responsibility. The value of Advantest's semiconductor test springs from the fusion of our ultra-precise measurement technology, which we continue to refine to this day, with a future-oriented vision of technology that enables highly efficient semiconductor test focused on customer value improvement. We live in an era when semiconductors are indispensable to our safety, security and comfort throughout the world. Guaranteeing their reliability is Advantest's mission to "enable leading-edge technology." In the dynamically changing semiconductor market, the key to realizing our mission, today, tomorrow, and in years to come, is to grasp business opportunities as quickly as possible by collaborating closely with leading customers, and incorporate our future-oriented measurement technology into the development of the solutions that customers require.

#### Test technology transitions brought about by past inflection points



(Source: SIA WSTS)

processes. By providing comprehensive test solutions that offer end-to-end coverage, along with device handling, temperature control, and device contact, we can deliver flexible automated processes that address the entire workflow. We also aim to provide more intelligent integrated solutions, including big data analysis, by utilizing data generated from the semiconductor manufacturing process, which is said to exceed two terabytes a day at leading-edge factories. Collaboration with leading customers is indispensable to quickly grasp inflection points such as we face now, and to develop optimal responses to them. Our customers' challenges are our compass and guide to future changes in terms of their potential for technological disruption and their impact on the market supply chain. Thus, one of our key development strategies is to build collaborative relationships with leading customers and incorporate their needs into detailed roadmaps and development plans, leading to the commercialization of

#### A Global R&D Division

successful products.

Our core business is Semiconductor Test (ATE: Automated Test Equipment), and we are proud that in 2019, we once again claimed the No. 1 market share of the ATE market. We are equally proud of the industry-leading product portfolio and customer base that supported this achievement. We are accelerating the integration of the V93000 development team with the T2000 and memory tester development teams to facilitate global development projects and personnel rotation. Our ST (System level Test) business division, established in FY2019 to develop and provide SSD test systems, also includes the system level test business we acquired from Astronics, and Essai, which we acquired in January 2020. Essai has strong capabilities in final test and system level test sockets, and thermal control units for temperature control.

#### Our Key R&D Themes for FY2019 - FY2020

- Next-generation scalable test system platform development (V93000 EXA Scale)
- Development of testers for 5G millimeter wave and high-end SoC devices
- Development of a high-end memory tester
- Development of software architecture that enables big data analysis and high throughput
- Development of a test cell platform for comprehensive quality improvements such as factory automa-

#### Solutions launched as new products:

- New T2000 module for automotive SoC test with greatly improved parallel test performance
- H5620 high-speed burn-in tester for memory test (announced)
- V93000 Wave Scale RF8 market launch for Wi-Fi 6E and 5G-NR devices
- TS9001 TDR system high-precision wiring failure analysis solution using terahertz technology (announced)

#### Capturing Change and Opportunities in **Adjacent Markets**

Our ARTeam (Applied Research & venture Team) was established as an organizational structure that transcends the R&D division to sensitively capture opportunities for business expansion into adjacent markets and coming inflection points. In addition, the above-mentioned acquisition of Astronics' system level test business, the acquisition of Essai, and the partnership with PDF Solutions announced in July also target business expansion into adjacent markets. In the future, we will continue to explore opportunities to further align Advantest's business portfolio with evolving customer needs, including collaborations with partners, universities, and research institutes.

Advantest's Manufacturing Strenaths

# DFX is the Key to Manufacturing for Achievement of Our Grand Design

Our Grand Design sets a sales estimate of ¥400 billion, approximately 1.5 times our record high set in fiscal 2018 (¥282.5 billion). Expanding production capacity to meet this demand does not necessarily mean only expanding our own factories and production staff. Particularly in the semiconductor test market, where sudden demand fluctuations are normal, capital investment and hiring based on the production requirements expected at times of peak demand will directly lead to higher fixed costs and a higher breakeven point. It is important to balance Advantest's unique manufacturing strengths with the use of highly efficient outsourcing. The key to achieving this balance is DFX (Design for X).



Soichi Tsukakoshi

Senior Executive Officer Executive Vice President, Production Group

#### Mid- to Long-Term Basic Policies of the **Production Division**

Historically, the semiconductor industry was shaped by the four-year cycle of demand fluctuations driven by Silicon Cycle, which led to booms and busts every two years, but in 2015 Silicon Cycle broke down, and demand began to grow steadily. In particular, the rapid increase in demand that we experienced in fiscal 2018--the so-called "supercycle"--gave us numerous pointers towards reshaping our production system to better utilize both in-house production and outsourcing.

To support the business scale (sales of ¥400 billion) envisioned by our Grand Design, we are reorganizing our production structure through various measures such as a profit improvement strategy based on AVA2.0\*1, global expansion of our production base through the utilization of

EMS\*2 partnerships, cost reduction throughout our supply chain, and a constant focus on high-quality manufacturing. I have proclaimed that in the future, the production division will work with the R&D division to promote DFX, which enables production and procurement outside the Gunma Factory (our main domestic factory). In addition, I have set forth a mid- to long-term policy for the production division that incorporates priority issues including the above-mentioned measures.

#### **Design for Supply Chain:** A Recipe for Strength

The Gunma Factory's great strength is our highly experienced production team, whose seamless teamwork has enabled us to handle fluctuations in demand by slowing or speeding up production. Despite being few in number, these elite production workers have been able to provide flexible production support, which is also the key to controlling manufacturing costs. However, if annual sales climb over ¥250 billion, greater volume production requirements will make it necessary to construct a production system that is not exclusively in-house, but is combined with an outsourced model. Outsourcing can be roughly classified into two different models, a partial outsourcing model in which only bottleneck processes that constrain production are outsourced, and a full turnkey model in which everything from material procurement to production is outsourced to a single partner. In the face of volatile demand, bottleneck processes tend to be outsourced first, but the disadvantages of this model are that supply chains tend to be lumpy and complex, and it is difficult to scale up when increased demand requires increased production. In addition, if production growth trend forecasts are mistaken, the amount of lumpiness in the supply chains can increase, and management costs will rise. On the other hand, for small-volume products with low repeatability and products that use specialized parts, when there is no need to chase economies of scale, there can be advantages to partial outsourcing that is highly specialized and can respond with great flexibility to changes.

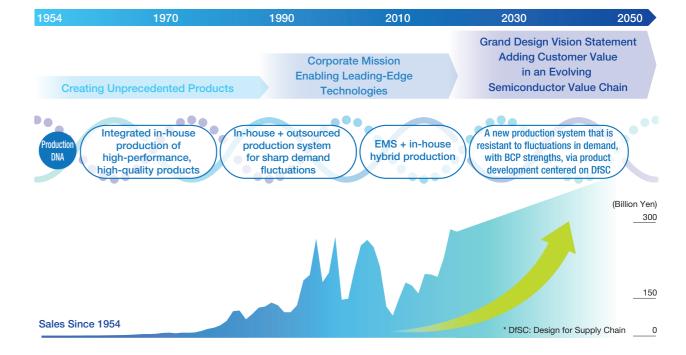
However, the main objective of the full turnkey model is to seek economies of scale through volume production, so major EMS manufacturers will also be considered as

outsourcing partners. We have already implemented this model for some of our products, but many more of the products now made at the Gunma Factory will be outsourced to EMS subcontractors in the future.

In the full turnkey model, uniqueness and oddities in terms of design, parts, construction methods, quality standards, etc. become supply chain risks, leading to reduced supply capacity and lost opportunities. The key to achieving the goals of our Grand Design is a combination of inhouse production, a partial outsourcing model, and a full turnkey model, maximizing the strengths of each. Various forms of "Design for X" are required for that purpose, but the "secret sauce" is Design for Supply Chain.

#### Response to New Risks

Every year for the past few years, a severe disaster has occurred somewhere in the world. Every time supplies of materials are cut off, and some customers are inconvenienced. In addition, in 2020, new threats such as the global economic slowdown due to the spread of COVID-19, the transformation of the global supply chain caused by U.S.-China trade friction, and the two countries' competition for technical hegemony, have appeared as external factors we must take into account. Rather than just considering our own safety, we must overcome these new crises while helping and accommodating our customers and business partners. Therefore, I believe that all stakeholders in the supply chain must cooperate in creating a system of Design for Risks.



<sup>\*1:</sup> Advantest Value Added 2.0: a business management/evaluation tool based on ROIC (return on invested capital)

<sup>\*2:</sup> Electronics Manufacturing Services: companies that offer contract manufacturing services for electronic devices



**HR Strategy** 

# Human resources drive sustainable development

Advantest believes employees drive our sustainable development and growth. Based on this believe we implemented The Advantest Way which represents the values shared by Advantest employees worldwide, and nourishes our corporate culture.

#### Keith Hardwick

Managing Executive Officer Global HR Executive Vice President

#### Our Grand Design and the Advantest Way

Three of the Six Commitments in our Grand Design (see p.19-20), "Partner with leading-edge customers," "Attract and retain the best talent in the industry," and "Learning organization" are the driving forces in our human resources strategy. We have a mission to continuously improve ourselves so that we can offer products and services that will satisfy our customers worldwide through the development of the most advanced technologies.

However, developing advanced technology is constantly pushing the envelope in our increasingly complex business environment. This complexity was highlighted in the fourth quarter of our fiscal year with the global pandemic. Advantest and it employees responded to this complex situation, by establishing innovative ways to constantly communicate, learn and evolve together with our customers and partners. This is just example of our employees demonstrating our "learning organization" capabilities by adapting to new environment of restricted travel in remote work environment. One key to achieving this was the Advantest Way, especially the Core Values represented by

the acronym "INTEGRITY." In order to improve our organization and ultimately provide higher-quality products and services to our customers, our employees share and live these Core Values, with a particular focus on Trust, Respect and Teamwork, creating an environment where we constantly learn from each other.

With this in mind we are now holding company-wide workshops to ensure full employee buy-in to live our values daily. As of the end of March 2020, about 70% of employees worldwide had participated in a workshop. Executives and managers act as facilitators, helping them not only to hear the voices of employees, but also participate in two-way learning processes. Although the COVID-19 crisis interrupted face to face workshop schedules, we are continuing with online workshop sessions until all Advantest employees have completed the workshop.

#### Strategic Development of Resources and the Advantest Way

In recent years, sales to China, Taiwan, and South Korea have come to account for 70-80% of total sales. To strengthen customer support in these regions, we are



The Advantest Way workshop

CORE VALUES

Innovation Number One Trust

**Empowerment** Global Respect

Inclusion and Diversity INCLUSION AND DIVERSITY is

Teamwork Yes

**NUMBER ONE** is our Aspiration TRUST is our Foundation **EMPOWERMENT** is our Motivation **GLOBAL** is our Reach **RESPECT** is our Heart

**INNOVATION** is our Lifeblood

our Commitment

**TEAMWORK** is our Approach **YES** is our Attitude

focusing on new recruitment and placement of software and Application engineers in these regions.

That said, product development is centered on Japan, United States, and Germany. On the customer side, equipment may be developed, and purchased in different countries, emphasizing the need global sales force that remains in close communication with all counterparts. It is not uncommon for development staff, sales staff, and shipping destination and post installation support staff to be located in different regions. INTEGRITY helps us build an framework for global support by relying on Teamwork and Inclusion & Diversity.

Maintaining this ability to provide comprehensive support to our customers through global cooperation is one of our top priorities, as expressed in our commitment to "Partner with leading-edge customers." In addition, performance-based bonus and stock-based compensation, which are calculated based on the performance of the entire group, not on business division or country / region performance, contributing to global teamwork effort.

#### Investment in Management Resources for Growth

Advantest's business is chiefly supported by employees and their work experience, and wisdom. Equipment deteriorates over time, but human experience and wisdom do not deteriorate it only to grow with time. Therefore, we not only hire excellent human resources, but we also invest in their training and development as stated in our commitment to "Attract and retain the best talent in the industry."

Since the announcement of our Grand Design, we have expanded our human resources development program to help all employees take the initiative to hone their basic abilities, and enhance their individual strengths. In this way, we aim to be a learning organization that continues to funnel new knowledge into products and services. Since excellent leadership is indispensable for achieving sustainable growth in an era where more complex and difficult decision-making is required, we also focus on developing human resources who can take responsibility for top and core functions globally. Each Group company additionally develops training programs to enhance individual abilities and specialties according to the needs of each country and region. Since FY2 0 1 8, our investment in employee education has also increased significantly.

#### **Employee Education Costs (Consolidated)**



For example, in Japan, we have held software engineering forums six times a year for 20 years, where employees learn from instructors inside and outside the company, such as Agile development, Deep Learning, Cl(Continuous Integration). In October 2019, we launched Advantest Engineering Friday, a community which has created multiple sub-groups that meet regularly on Friday afternoon to study their specialties. In China, we regularly hold a Training Day where in-house lecturers offer themed talks, and are evaluated under a commendation system that helps to create a culture of mutual learning.

**Sustainability Overview** 

### Sustainability: Addressing Three Important Social Issues

Advantest collaborates with our customers and suppliers to contribute to a safe, secure, comfortable, and sustainable future by solving social issues through our business and considering the environment and society as we conduct our business operations.

#### The Advantest Way

Sustainability through ESG Promotion means all employees share an awareness of the importance of our relationship with society and the environment. This is the basis for the sustainability activities of the Advantest Group.



- Advantest works for environmental conservation and strives to reduce our environmental impact
- Advantest continuously fulfills our responsibility as a global company to strive for the achievement of a prosperous society
- Advantest respects our customers and meets their needs through the stable provision of high-quality products and services
- Advantest respects our shareholders and 4 investors, and returns profits and discloses information appropriately
- Advantest respects our employees, treats them 5 fairly, and strives to create comfortable
- Advantest respects our business partners and 6 aims for mutual development by building cooperative relationships
- Advantest aims to achieve a sustainable level of business development of the Company group and to enhance corporate value over the medium to long term by building a fair, efficient and transparent governance system.

#### **Three Important Social Issues**

Based on dialogue with stakeholders, we have selected three of the social issues emphasized by CSR evaluation organizations and international sustainability guidelines to drive our contribution to the SDGs (Sustainable Development Goals).

#### 1. Climate Change Initiatives

In recent years, abnormal weather and environmental variability, thought to be caused by climate change, have become a prominent topic. Thus, responding to climate change is necessary to achieve a sustainable society.

#### 2. Protection and Respect for Human Rights

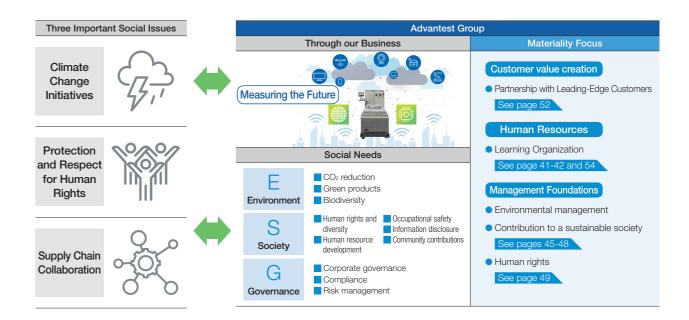
Amidst growing international concern for human rights, Advantest requires all stakeholders involved in our business activities, including employees and business partners, to respect human rights and ensure proper labor practices.

#### 3. Supply Chain Collaboration

With the globalization of business, companies are required to take ownership of human rights, labor, and environmental impacts throughout the supply chain. In order to achieve responsible supply chain management, it is important to tackle social issues in collaboration with suppliers, based on fair, impartial and transparent business relationships.

#### For details, see "Sustainability Data Book".

In response to social needs and the importance of solving social issues through our business, Advantest focuses on the environment (E), society (S), and governance (G), aiming to develop together with society. In addition, understanding the importance of responding to climate change and taking initiatives to protect and respect human rights, we collaborate with everyone in our supply chain to achieve the vision of a safe, secure, comfortable, and sustainable future.



#### Responding to social issues in collaboration with our supply chain

	Upstream		In-house		Downs	stream
Social expectations and needs	<ul> <li>Understanding environmental and social impacts</li> <li>Solving social issues through collaboration</li> </ul>	<ul> <li>Contributing to the environment and society through products</li> </ul>	Providing high-performance, high-quality products     Reducing environmental impact     Providing employment opportunities	<ul> <li>Providing safe, high-quality products</li> <li>Reducing environmental impact associated with logistics</li> </ul>	<ul> <li>Reducing environmental impact</li> </ul>	<ul><li>Recycling resources</li><li>Using resources effectively</li></ul>
	Procurement	R&D O LLL	Production	Sales / logistics	Usage	Maintenance / recycling
Supply chain	<ul> <li>Collaborating with suppliers for mutual growth and prosperity</li> </ul>	Ensuring the reliability of social infrastructure     Improving environmental performance of products	<ul> <li>Stable production and supply of products</li> </ul>	<ul> <li>Fair business practices</li> <li>Reducing greenhouse gas emissions</li> </ul>	<ul> <li>Improving customer productivity</li> <li>Improving the quality of customer products</li> <li>Improving the reliability of customer products</li> <li>Reducing greenhouse gas emissions through the use of our products</li> </ul>	<ul> <li>Providing total solutions</li> <li>Providing support and services that add value</li> </ul>
Sustainability Issues	Labor and human rights     Health and safety     Reduction of     environmental impact     Conflict minerals     Sustainable resource     utilization     Elimination of     corruption and fraud	Assessment of environmental and social impact of products and services     Proper use of intellectual property	Reduction of greenhouse gas emissions Labor and human rights Health and safety Hazardous substance management Pollution prevention	Fair competition     Elimination of corruption and fraud	<ul> <li>Ensuring product safety</li> <li>Providing high-quality products</li> </ul>	<ul> <li>Product recycling</li> </ul>

For details, see "Sustainability Data Book"



### Climate Change Initiatives

Advantest engages in environmental conservation activities such as the development of green (environmentally friendly) products, reduction of environmental impacts, and biodiversity conservation based on our environmental policy. In particular, regarding the prevention of global warming, we proactively promote the reduction of CO2 emissions through our business activities and of greenhouse gases emissions through our supply chain. Going forward, we will set long-term goals and policies from the perspective of biodiversity and make even greater efforts to achieve a sustainable future for our common home.

#### Advantest Group Environmental Policy

#### **Promoting Environmental Management**

By maintaining our environmental management system, we promote global environmental conservation efforts that balance business activities and environmental efficiency

#### **Reduction of Customers' Environmental Impact**

We promote energy conservation, improved recyclability, and the elimination of hazardous substances, giving consideration to the life cycle of our products from materials procurement to disposal of products.

#### **Business Process Innovation**

We continually improve our business processes to hone our environmental performance through environmentally friendly manufacturing.

#### **Environmental Protection and Sustainable Use of Resources**

By being alert to the environmental impact of our business activities, we strive to protect the environment through measures ranging from climate change prevention to the conservation of biodiversity, as well as sustainable use of resources such as energy and water.

#### Compliance with Environmental Laws and Regulations / Pollution Prevention

Upholding all environmental laws and regulations and voluntary standards, we protect nature and shield our neighbors from environmental pollution and health hazards caused by chemical substances, waste and other contaminates.

Revised April 1, 2017

#### Major Environmental Conservation Initiatives

1993 • Advantest Global Environmental Conservation Committee established

1994 Published "Advantest Environmental Action Plan"

Established Global Environment Office, and started full-scale environmental conservation activities

Formulated "Advantest Environmental Policy"

Obtained ISO14001 certification for the Gunma Factory

Opened Japan's largest biotope at the Gunma R&D Center

Obtained ISO14001 certification for all domestic facilities

Conducted rainforest conservation activities in Borneo to commemorate the 50th anniversary of Advantest's founding (2004-2016)

2008 • 40% reduction in power consumption achieved by our first green product, the T5503

 ISO14001 certification achieved by facilities in the United States, Germany, Singapore, China, South Korea, 2009 Taiwan, and Malaysia, completing our certification worldwide

2012 • Achieved 100% renewable energy sourcing at US offices

2019 Achieved 100% renewable energy sourcing at German offices

• Started introducing renewable energy at R&D and production locations in Japan 2020

Announced support for TCFD recommendations and joined RE100

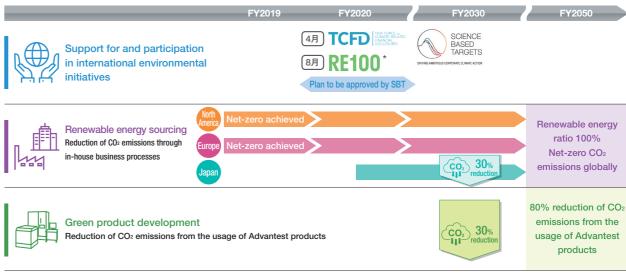
#### (1) Announced support for TCFD recommendations, planning to obtain SBT certification





Advantest considers climate change response to be a key management issue. We are working to reduce CO2 emissions not only in-house but across the entire scope of our business activities, including our value chain. In April 2020, we disclosed relevant information in alignment with the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures). We are also preparing to obtain SBT\* (Science Based Targets) certification.

#### Climate Change Initiatives Roadmap Targeting 2050



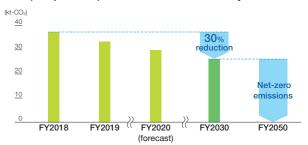
<sup>\*</sup> RE100 (Renewable Energy 100%): A global initiatives bringing together the world's most influential businesses committed to 100% renewable electricity

#### (2) Global utilization of renewable energy

In terms of mid- to long-term CO2 emission reduction targets for business activities, we aim for a 30% reduction in FY2030 (compared to FY2018) and a goal of "net-zero CO<sub>2</sub> emissions" by 2050. In August 2020, we joined the international initiative RE100, which aims for business activities to use 100% renewable energy, and are promoting CO2 reduction globally by introducing renewable energy. We have already achieved 100% renewable energy sourcing in the United States (2012) and Germany (2019), and in April 2020, we started introducing renewable energy at our Japanese R&D bases in Gunma and Saitama Prefectures. We plan to achieve RE100 at the Gunma Factory by 2030.

From 2030, we will aim to achieve the target of net-zero CO<sub>2</sub> emissions in 2050 by further accelerating the introduction of renewable energy sourcing in Japan and Asia as appropriate given conditions in each region.

#### CO<sub>2</sub> (Scope 1 + 2) Emissions Reduction Objectives



### FY2030 30% Reduction

#### Reduction objectives vs. FY2018 actual emissions

Measure	Reduction (t-CO <sub>2</sub> / year)
Promotion of energy-saving measures (improved air conditioning efficiency, LED lighting, shortened production times, etc.)	2,100
Increase of renewable energy utilization ratio	9,700
Utilization of credits such as power certificates	500
Total reduction	12,300

<sup>\*</sup> The SBT initiative is an international partnership that helps companies determine how much they must cut emissions to prevent the worst impacts of climate change, based on scientific evidence.

Introduction Our Strategy Our Performance Sustainability Governance Information



For details, see "Sustainability Data Book".



#### (3) Reduction of CO<sub>2</sub> Emissions Through Green Product Development

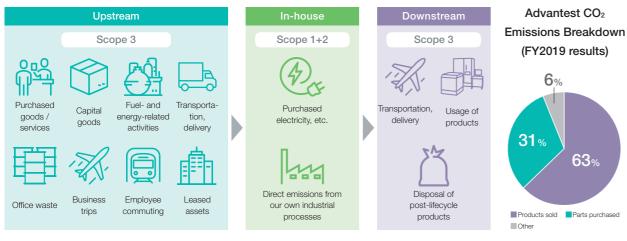


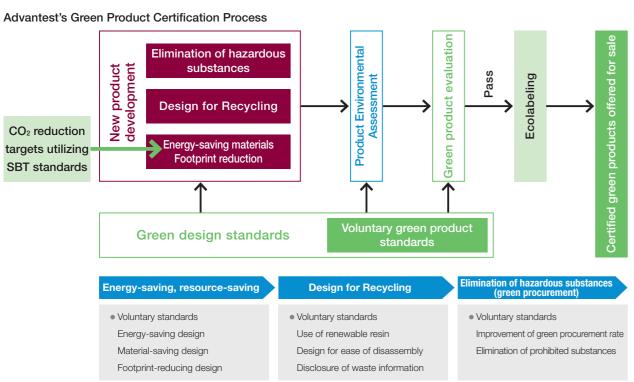
Greenhouse gases (GHG) emitted through the use of our products account for approximately 63% of total emissions from our value chain (parts procurement, manufacturing, in-use and disposal). Therefore, we are prioritizing the development of green (environmentally friendly) products.

Hitherto, we have assumed a  $+2^{\circ}$ C scenario for global warming, and have considered reducing CO<sub>2</sub> emissions 30% by 2030 and 51% by 2050. We have now reset our

targets to a 30% reduction by 2030 and an 80% reduction by 2050, based on the October 2019 revision of the SBT standards, which now call for a temperature rise of "well below" 2°C (in comparison to the pre-industrial era). To reduce after-market emissions from our products, which account for 63% of GHG (Scope3) emissions across our entire supply chain, the product development division is playing a central role in developing green products.

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





#### **TOPICS**



# Customers Demand Environmental Performance. New Goals Based on SBT Boost It.

Hirokatsu Niijima Memory Test Business Unit Section Manager



As Moore's Law implies, the semiconductor manufacturing process continually evolves, and the number of circuits integrated onto a single chip is increasing year by year.

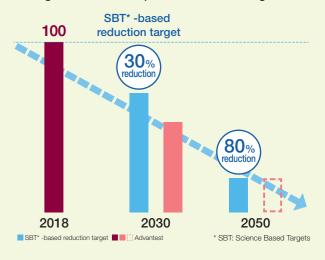
In addition, semiconductors are indispensable for the evolution of 5G and other information technologies, and the production volume of these devices is increasing. Great numbers of semiconductors are also being used in automobiles and medical equipment, where test-guaranteed reliability is even more essential. As a result, the number of tests conducted is increasing exponentially, and customers are seeking greater test efficiency (increasing test speed and parallel test capability) for each new generation of semiconductors.

 $\mbox{CO}_2$  reduction and contribution to the SDGs are now essential aspects of business. Advantest believes that improving the performance of our testers to meet the technical requirements of our customers can also contribute to the reduction of  $\mbox{CO}_2$  emissions. We use "power consumption per test" as our basic unit to evaluate power performance, and aim to increase test frequency without increasing power. We are working to reduce power consumption per test, and thus  $\mbox{CO}_2$  emissions per test, by increasing the test frequency multiplied by pin count, or the test frequency multiplied by parallel measurement count, without increasing power consumption.

For example, if we quadruple the "test frequency x pin count" while less than doubling power consumption, we halve  $CO_2$  emissions per test.

Hitherto, our technology and development roadmap referred mainly to customer trends and the now-defunct International Technology Roadmap for Semiconductors (ITRS). We are now introducing a new SBT-based CO<sub>2</sub> emissions reduction target, which informs our long-term technical targets for 2030. We are continuing to formulate our 2050 targets.

#### Average CO<sub>2</sub> emissions per test reduction targets







#### Introduction Our Strategy Our Performance Sustainability

#### Governance Information

### Protection and Respect for Human Rights

#### (1) Creating a Workplace where Human Rights are Respected







Advantest believes that human rights are an important factor to consider in the global expansion of our business. We support international human rights norms such as the Universal Declaration of Human Rights, and respect basic human rights in light of the laws and regulations of each country and region where we operate.

In addition, we have signed the United Nations Global Compact, a global initiative advocated by the United Nations, and support its 10 principles by promoting initiatives in the four fields of human rights, labor, the environment, and anti-corruption.

The Advantest Way includes a Code of Conduct that lays out our policy on human rights protection. It prohibits discrimination based on race, gender, age, nationality, religion, social origin, physical disability, illness, or sexual orientation. We have also formulated a human rights and discrimination manual and a harassment prevention guide to promote protection and respect for human rights, which guides us in developing the spirit of the United Nations Global Compact in our workplaces worldwide.



#### (2) Human Rights Issues Helpline



Advantest has set up a corporate ethics helpline for human rights problems or consultations that are difficult to solve in the workplace, enabling employees to report issues and consult directly with the Corporate Ethics Office. The Corporate Ethics Office plays a central role in handling reports and consultations, and keeps the names of individuals strictly confidential to avoid possible unfavorable treatment or retaliation. From fiscal 2019, we also set up a channel for reports to an external law firm to make helpline consultations and reports even easier. These helplines can also be used outside Japan.

In Japan, we have set up a Human Rights Protection Committee which works together with our labor union to resolve consultations on human rights issues. In fiscal 2019, we received two harassment-related consultations, both of which have been resolved. The Human Rights Protection Committee takes appropriate measures after giving due consideration to the privacy of the individuals involved, and seeks prompt solutions. In this way, we strive to create workplaces where all employees respect each others' human rights and can work with peace of mind.

#### Consultations and Reports Resolution Workflow



# Occupational Health and Safety Management



For details, see "Sustainability Data Book".



The Advantest Group recognizes that health and safety management is one of the most important aspects of business activities. We actively and continuously conduct health and safety activities based on the Advantest Group Occupational Health and Safety Basic Policy.

In FY2019, we maintained the health and safety of our employees along the following two axes:

#### (1) Health Management Promotion



Having decided to introduce health management to maintain and improve the health of our employees, we declared our Health and Productivity Management (HPM) Policy in September 2019. Under this policy, the company, our health insurance union, and our labor union work together to encourage employees to get health checkups, improve the implementation rate of specific health guidance, and

operate a health portal website. As a result, Advantest was certified as a "Health Management Excellent Corporation 2020 (Large Corporation Category)" under the Japanese Ministry of Economy, Trade and Industry's Health Management Excellent Corporation Certification System.

#### Health and Productivity Management (HPM) Policy

In order to realize Advantest's mission, we will strive to create a workplace where every employee can work in good health, both physically and mentally. We will contribute as a good corporate citizen to the creation of a sustainable future.

- Health literacy improvement:
- 100% health checkup rate, prevention of serious illnesses, health quidance (exercise, diet, smoking cessation, etc.), etc.
- Health support reinforcement: Health portal website launched (health checkup data, useful health information, walking challenge, etc.)

- nitiatives for corporate
- Employee engagement reinforcement: Engagement survey, action plan implementation (communication
- Work-life balance enhancement: Overtime restriction, encouragement of paid leave, paternity leave

Initiatives for the chievement of the SDGs

- Initiatives to maintain and improve the health of employees' families: Family health checkup rate improvement, health guidance, etc.
- Creation of a motivational workplace: Smoking cessation in business establishments, improvement of work environment, etc.

#### (2) COVID-19 Safety Measures





From the end of February 2020, the Crisis Management Headquarters took the lead in taking all possible measures to prevent infection based on the policy response of the government in each country where we operate. In Japan, we started telework on a trial basis in September 2017 in response to expected commuting difficulties associated with the Olympics, Paralympics, pandemics, and natural disasters, and established rules so that telework could be implemented in any department. We have also globally introduced online meetings, and successfully transitioned our expenses accounting to a paperless system. Thus in April 2020, we were fully prepared to implement our telework system, and were able to smoothly shift to telework when the Japanese government declared a state of emergency over COVID-19.

As we got used to working from home, we relaxed some rules (such as prohibitions on taking materials to home or printing things out at home) to maintain employee productivity at as high a level as possible. This flexibility proves that our telework system could also be implemented in other situations such as natural disasters, which are now increasing in frequency.

- <Some of Our Safety Measures>
- · Promoted telework to help employees whose children were at home due to school and davcare closures, etc., or allowed them to work flexibly
- · Helped expectant mothers to use the telework system
- · Reduced the number of chairs in employee cafeterias by two-thirds and changed the layout so that people cannot eat facing each other
- · Conducted thorough disinfection of shared spaces such as cafeterias, shops, and commuter buses
- Secured connectivity for employees working from home by introducing cloud-based remote access
- ·Notified employees of security precautions regarding telework and gave them appropriate training

# Collaboration with Our Supply Chain

### Supply Chain Management

#### **Basic Policy**

To fulfill our social responsibilities throughout our supply chain, Advantest publishes our Procurement Policy and Supply Chain CSR Promotion Guidebook on our website, and stipulates compliance with relevant laws and social norms as well as support for initiatives related to human rights, labor, and environmental conservation. In addition, we require suppliers to sign our "Basic Transaction Contract," which includes provisions related to ESG (Environment, Society, and Governance).

#### (1) CSR Procurement and Product Quality Improvement

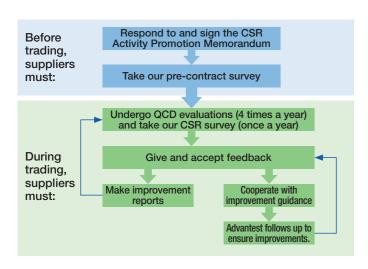


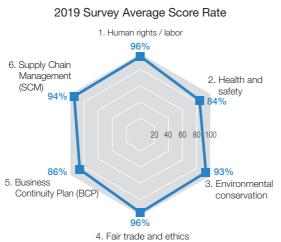




In addition to conducting quarterly QCD\* evaluations for suppliers, we also conduct an annual CSR questionnaire for the important suppliers who account for 80% of our transaction value. The guestionnaire is adaptable to changing conditions, with the content being reviewed every year based on the Supply Chain CSR Promotion Guidebook and analysis of our priority issues and survey results through the previous year. We also create summaries of results for each supplier and work for mutual improvement through feedback.

\* QCD: Quality, Cost, and Delivery





#### (2) Fair Transactions (CSR Procurement) Promotion Structure

Advantest has set up a department to guide the procurement division in promoting and managing fair transactions. Transaction status is audited by the audit department once a year, and generally unproblematic. We are careful not to deviate from sound business practices. In addition, an external organization conducts an internal control audit once a year, and confirmed that no problems occurred in FY2 0 1 9. Furthermore, with the cooperation of our suppliers, we conduct CSR questionnaires and conflict minerals surveys, and provide feedback on the results to further enhance the fairness of our transactions.

### Customer Engagement

#### **TOPICS**

### Reinforcement of Advantest's Customer Support Capabilities







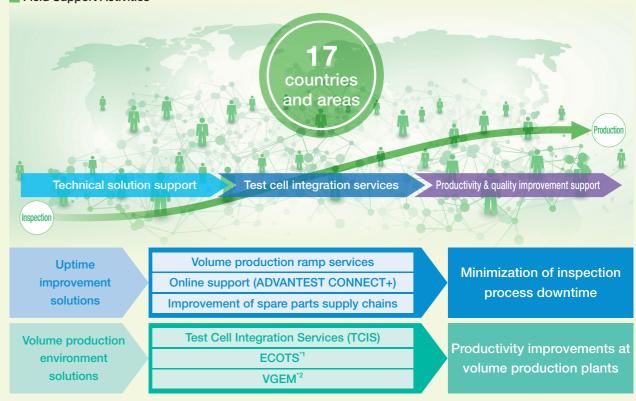
Advantest regards the ideal form of the materiality category of customer value creation as "Partner with leading-edge customers." The following two points are our priority strategies and themes for this category.

- Reinforce engagement with leading-edge customers
- Develop customer workflow solutions

As part of this, we introduce our field support activities that give top priority to customer value and are also environmentally friendly.

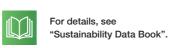
Advantest is committed to providing support that contributes to the efficiency of our customers' businesses and continuously supports their growth. In order to maximize equipment utilization rates, we carry out a wide range of activities such as quick repairs, test cell integration services for factory automation, and Al-driven efficiency improvements. Our technical solution support, test cell integration services, and productivity and quality improvement support all help us to further deepen our engagement with our customers and contribute to building foundations for technological innovation at energy-saving semiconductor fabs.

#### Field Support Activities



- \* 1: ECOTS: Easy and Convenient Operation Tools (an interface that allows users to build semiconductor test environments quickly and easily)
- \* 2: VGEM: Virtual GEM (an interface solution that integrates customer automation systems with our test systems)

### Human Resources Initiatives





Advantest considers employees a vital corporate resource. We support their diverse lifestyles and individual growth, and strive to help them grow together with the company. In September 2000, we established our Basic Philosophy of Human Resources, and continue to work on fairness and employee engagement, while actively supporting human resources development. We also support the 10 principles of the United Nations Global Compact, the Universal Declaration of Human Rights, and the Guiding Principles for Business and Human Rights, and aim to be an organization that emphasizes diversity while giving due consideration to the principles of human rights and labor.



#### Basic Philosophy of Human Resources

Advantest considers that employees are irreplaceable management resources (human capital), and has formulated the following philosophy as a basis for our measures related to human resources.

#### 1. Focus on results

By encouraging people to take on challenges, we promote a personnel system in which employees who have overcome difficulties and achieved innovative results are evaluated and rewarded appropriately.

#### 2. Fairness and engagement

We perpetually strive to make all our measures and systems objectively fair, with the goal of obtaining maximum employee engagement and achieving optimal results.

#### 3. Active support for human resources development

We work tirelessly to improve ourselves, and actively support employees who wish to acquire advanced specialized knowledge and broaden their education.

#### (1) Diversity Management

The active participation of each and every employee is indispensable for the sustainable growth of the company. Advantest has set "Inclusion and Diversity" as one of its core values, and is actively working to form a corporate culture that fosters an environment where everyone can work comfortably, and where each Advantest employee can maximize their individual potential, abilities, and motivation. In recognition of these efforts, in 2019 Advantest Europe GmbH (AEG) was selected as one of the 100 greatest places to work in Germany by the international Great Place To Work® Institute.



#### (2) Global Hiring for a Global Workforce

Advantest emphasizes a global perspective in our system for hiring, training, and allocating human resources, aiming to give excellent employees fair access to opportunities regardless of nationality and promoting employees across national borders. Through exchanges, we are enhancing the development of global human resources and the globalization of our organization.

10 out of 24 executive officers of the Advantest Group are foreign nationals (as of June 2020), and the Advantest Corporation (Japan) employs people from nine different countries.

#### (3) Workplaces That Foster Innovation

Advantest believes it is important for employees to share their know-how and skills, and we aim to create work environments where people can converse freely. In fiscal 2019, we significantly renovated our in-house gathering areas such as the cafes and cafeterias at our R&D centers and factories in Japan. In planning the renovations, we visited the offices of overseas subsidiaries to

exchange opinions, and as a result set up not only refreshment lounges but also casual meeting spaces and active spaces where employees can stretch. Bright open spaces with natural lighting are widely used to foster innovation, improve communication, and promote physical and spiritual refreshment.





#### **TOPICS**

#### Learning Organization (1) Advantest Engineering Friday

Advantest regards the ideal form of the materiality category of human resources as "Learning Organization." The fol-

lowing two points are our priority strategies and themes

for this category. Provision and promotion of learning opportunities and

skill development opportunities for employees Encouragement and promotion of teamwork across departments and regions

In fiscal 2019, we held workshops on The Advantest

Way globally to create conditions for better communication with all stakeholders and more effective coworking. Among other human resources initiatives, Advantest Engineering Friday (AEF) was inaugurated in October





2019 as a venue for the software division to continuously share their thoughts and opinions. Young people and veterans meet regularly on Friday afternoons for mutual study, creating their own community in parallel with our organization. AEF is also actively used as a venue to support awareness through one-on-one dialogue, and several small subcommittees have been created. It is accelerating the learning cycle of each participant, and improving our organizational flexibility.





#### Learning Organization 2 Online Al Courses

In February 2020, we built a trial environment for employees to take MOOCs (Massive Open Online Courses) on topics related to Al. Through Coursera, 42 students took deep learning and machine learning courses offered by well-known universities and organizations such as Stanford University, and 37 of them received diplomas. Programming skills and English proficiency were also required to solve

problems, so students worked together to help each other, which has helped to improve our engineers' abilities. In the future, we will not only encourage more new employees and other employees to take these courses, but will also build environments that help them to use what they have learned in their work.

Software technology and development methods are literally changing day by day. What really brought that home to me was when I attended an external seminar and heard that "Japanese software development is 10 years behind." It is now common knowledge that thanks to the advance of IT technology, information can be exchanged instantly, and yesterday's state-of-the-art technology will be replaced by something else today. On the other hand, how long does it take us to provide new software to our customers? ... I couldn't stand to think about it!

Around that time, a chat with a manager led to the creation of Advantest Engineering Friday (AEF). AEF is an organizational effort to support ongoing employee grow. It is difficult to educate people, so we

Michihiro Seino T2000 Business Unit Section Manager



created an environment where people can educate themselves. Sessions can be held on multiple themes, and participants are free to join any session. They can also communicate across departments. The aim is for them to be able to talk to someone when they come up with something, find companions to try it out with, and share their anxieties and thoughts freely.

### **Board of Directors**

#### Yoshiaki Yoshida

February 8, 1958 48,056











Mr. Yoshiaki Yoshida served as the representative director of a subsidiary of Advantest, Executive Vice President of the Corporate Planning Group, Executive Vice President of the Corporate Relations Group, and Executive Vice President of the Nanotechnology Business Group, before being appointed Representative Director, President and CEO of the company in January 2017. Given his wide range of management knowledge and experience, Advantest believes that he is a suitable person to realize sus-

tainable enhancement of corporate value as a director of the company.

#### Osamu Karatsu

ent 2012 April 25, 1947 3.056









<u>&</u> 14/14

Mr. Osamu Karatsu has a wealth of knowledge and experience as a semiconductor expert, in addition to management experience at domestic and overseas research and development institutions. The insights on the industry which he brings to the management of the Advantest group contribute to the sustainable enhancement of corporate value of Advantest and the effectiveness of the Board of Directors. Thus, Advantest believes that he is a suitable outside director.

#### **Toshimitsu Urabe**

October 2, 1954 Japanese Shares Held as of











Mr. Toshimitsu Urabe has extensive management experience at a leading Japanese general trading company, particularly overseas experience in the United States and Asia, experience in business investment decisions, and extensive experience in personnel management. The insights which he brings to the global management of the Advantest group contribute to the sustainable enhancement of corporate value of Advantest and the effectiveness of the Board of Directors. Thus, Advantest believes that he is a suitable outside director.

#### Soichi Tsukakoshi

Director, Senior Executive Officer

res Held as of

February 1, 1960 Japanese 4.935







Mr. Soichi Tsukakoshi has worked in sales and marketing, was Senior Vice President of the Sales Group, and currently serves as Executive Vice President of the Production Group. He has a wealth of knowledge and experience concerning sales and marketing as well as production. We have determined that he is a suitable person to realize sustainable enhancement of corporate value as a director of the Advantest Group by improving the efficiency of manufacturing and optimizing supply

### Nicholas Benes

Date of Appointment 2019 April 16, 1956 American es Held as of











Mr. Nicholas Benes has extensive knowledge and experience in corporate governance and experience in investment banking, including M&A. The insights on corporate governance and the perspective of shareholders which he brings to the global management of the Advantest group contribute to the sustainable enhancement of corporate value of Advantest and the effectiveness of the Board of Directors, Thus, Advantest believes that he is a suitable outside director.

#### Atsushi Fujita

Director, Managing Executive Officer

intment 2019 November 15, 1959 2.263









2 11/11

Mr. Atsushi Fujita has been engaged in corporate administration, mainly finance and accounting, for many years, including assignments in the US and Germany, and he has gained a wealth of knowledge and experience concerning the Advantest Group's business and corporate management. Thus, Advantest believes that he is a suitable person to realize sustainable enhancement of corporate value as a director of the Advantest Group.

#### Koichi Tsukui

res Held as of 1.853









Mr. Koichi Tsukui has worked in various R&D divisions and in sales for many years, including assignments in Germany, and has a wide range of knowledge and experience regarding the businesses and management of the Group. Therefore, Advantest believes he is suitable as a director of the Advantest Group.

Director, Standing Audit & Supervisory Committee Member

July 28, 1949 Japanese ares Held as of







Yuichi Kurita











Mr. Yuichi Kurita has many years of experience in finance and corporate planning, and has extensive knowledge and experience in finance and accounting. In addition, he has served as a director and is an audit and supervisory board member of the Advantest Group, in which position he is currently striving to improve auditing/supervision and governance. In view of his achievements. Advantest believes that he is a suitable person to enhance supervisory and oversight functions as a director who is a member of the Audit and Supervisory Committee.

# Sayaka Sumida

Date of Appointment 2020
Date of birth January 28, 1961
Nationality Japanese tionality ares Held as of







Ms. Sayaka Sumida has worked for an accounting firm as a certified public accountant, has been engaged in accounting, auditing, and internal control operations for many years, and has extensive knowledge and experience of finance and accounting. Advantest believes she is a suitable person as an outside director who is a member of the Audit and Supervisory Committee of the Company, as her insights contribute to the effectiveness of the Board of Directors and the improvement of the functions of the Audit and Supervisory Committee.

#### **Douglas Lefever**









Mr. Douglas Lefever plays a key role in promoting Advantest's business development in Silicon Valley and other parts of the United States. He has broad knowledge and experience regarding the businesses and management of the Group. His perspective enhances the diversity of the Board of Directors and can be expected to make it more effective. Thus, Advantest believes he is a suitable person as a director to realize sustainable enhancement of the corporate value of the Advantest

#### Kouichi Nanba

September 1, 1949 Japanese res Held as of





Legal affairs.

(\*) 2019











Mr. Koichi Namba has a wealth of experience in law and compliance and a high degree of specialized knowledge, after serving as a judge mainly in charge of civil cases for many years, and engaging in the practice of corporate legal affairs as a lawyer. Advantest believes that he is a suitable person as an outside director who is a member of the Audit and Supervisory Committee of the Company, as his insights into the auditing and supervision of the Advantest Group contribute to the improvement of auditing and supervisory functions.

#### Applicable number of directors Experience and skills Committee Board of Directors Leadershi Audit and Supervisory Finance Knowledge of the Ø, Nomination and Compensation Committee 1/4 Attendance Rate Research and Chairperson **Global Operation**

A

### Messages from Outside Directors

Advantest from Board of Director's perspective



Provision of appropriate external resources for initiatives and expansion in new business fields

Advantest's business is measurement and test technologies that guarantee the functional performance of products and add value to them. The history of semiconductor products has been one of outstanding growth underpinned by the highly stable product quality and increased market value that can be obtained from high-performance test technology.

In recent decades, in particular, semiconductor technology has advanced dramatically in accordance with Moore's law, and semiconductors have made enormous gains in performance and complexity. To establish these advanced devices as marketable products, Advantest has played a crucial supporting role in the "backbone" of the electronic products industry by launching more and more advanced test systems with continually improving technology.

In recent years, these trends towards higher performance and greater complexity have transcended the boundaries of semiconductor devices. We now talk about product performance and quality in the context of assemblies and systems. In anticipation of this development, Advantest announced a new medium- to long-term management policy (Grand Design) in 2018, and has further advanced its implementation since then, while continuing to calibrate the direction of its future test business development against industry trends. Starting with the addition of SLT businesses acquired from Astronics and Essai to the Advantest Group, the company has been steadily laying the groundwork to expand its business foundation by evolving into a total test system company that can organically provide end-to-end test technologies, and continues to seek the most effective approach to feed test data back to improve design and production process management by utilizing big data analytics.

Many other companies have recently reported accidents such as malfunctions and fires after shipping due to combined compound failures at the final product level. The economic and brand damage resulting from such incidents can be fatal for companies. Advantest is committed to proactively detecting defects concealed by technologial complications and providing value to minimize market accidents and associated rework costs, and aims to expand this commitment as part of the company's support for industrial productivity im-

Since initiatives and expansion in these new fields of business involve activities that may require experience and resources in addition to those accumulated by Advantest, I hope to make an active contribution by providing appropriate information and advice as an independent director.



Two Challenges We Must Overcome to Achieve Advantest's Grand Design

With 95% of our sales overseas, we have 32 affiliated companies in 17 countries around the world, and the global market for semiconductor test equipment is divided between Advantest and US supplier Teradyne. In response to the globalization of our business, 2 out of 11 directors and 10 out of 24 executive officers are now of non-Japanese nationality, making our management team multinational compared to other Japanese companies. In 2018 we announced our "Grand Design," a long-term vision that aims to use advanced technology to contribute to the development of the world's semiconductor-related industries and achieve sustainable growth. This was a declaration of our determination to continue to diversify our profit sources and add new businesses by solidifying our advantage in the semiconductor test equipment realm and further expanding our business domains across the semiconductor value chain. I believe we face two challenges to achieving this ambitious vision.

The first is endless organizational evolution. In the future, as Advantest's domain of activity expands, the factors that must be taken into consideration for sustainable growth will increase. Efficient and well-balanced multi-disciplinary organizational management approaches such as separate business strategies for each business, cross-sectional resource/ knowledge management for each function such as manufacturing, sales, and administration, and operations optimized for regional characteristics will increasingly be required. There is no "silver bullet" or perfect template, and these are issues that we will continue to work on while responding to environmental changes, but I am looking forward to seeing how our organization, which has already formed the ability to adapt to such developments, will continue to evolve in response to

Our second challenge is unique shared values. As our business and our staff become globalized, it would be ideal if we could continue to take pride in our origins, so that employees of various nationalities could fully share a sense of belonging to a global enterprise that was born in Japan. For example, Advantest has a unique set of values backed by many years of experience, and it is possible for us all to share the awareness of being grounded in this history, which can be a unifying counterweight to ongoing innovation and creation in various fields and regions. It is natural for a company to adapt to global frameworks such as the SDGs, but I think that the shared values unique to our company are the ultimate foundation of our Grand Design. I hope that "The Advantest Way" will evolve in that direction.



Our Governance and Sustainability Management

After one year as a director, I believe our board is a dedicated team that draws upon a diverse mix of skills experience to effectively monitor and provide fresh perspectives. Management is comfortable being held accountable, is responsive to the independent directors, and is open to new agenda topics and requests for additional reporting. At the board meeting, there is much discussion and healthy debate about both near and long-term issues, and especially about how best to realize the full potential of our "grand design" strategy as the semiconductor value chain evolves. To deepen our thinking and understanding of key issues, every year the board also spends several days off-site for "deep dive" discussions. This year, as part of this we visited Advantest facilities in California.

During the last fiscal year, the board received training about recent developments in ESG-based investment from an expert. In this report, we are for the first time disclosing information following the SASB's standards for the semiconductor industry. Going forward, we plan to track these and other measures at the board level, so as to remind executives to take proactive leadership and concrete steps to improve them as part of daily management. We will also need to keep a lookout for other significant sustainability criteria and growth opportunities that are unique to our company's focus on test, and create a virtuous cycle in tandem with our strategy. This is already being done, but we must seek to do it more.

This year we will be considering ways to streamline our board practices so that we can allocate more time to the most important issues and long-term policies, while suffering no loss in the quality of monitoring. To the extent feasible given local differences, we will also seek to further improve and standardize our global practices for matters such as compensation, compliance, and reporting. We must evolve our organization as fast as the expanding size of our global footprint. Advantest is a company with immense potential, but to achieve it, we must fully benefit from efficient global teamwork, and avoid unnecessary risks and mishaps. In governance, there is always room for improvement.



The Importance of Compliance & Advantest's Challenges

Recently, we have been flooded with documents written from left to right (rather than from top to bottom in Japanese style) and katakana terms (English words transliterated into Japanese, rather than translated). Among them you may have seen the word "compliance." Compliance refers to legal compliance, that is, the compliance of a company with rules and social norms. It can be said that the concept has already taken root in society. It seems as if it should be easy for companies to maintain compliance, but it is surprisingly difficult. I was a witness to scandals at three other companies last year. The causes of these, in my opinion, were lack of norm awareness in pursuit of profits, insufficient monitoring systems with respect to the division(s) that caused the scandals, and corporate cultures that had poor awareness of norms in the first place.

Once a breach of compliance causes negative publicity, the damage to the company can be enormous, and it can even develop to the point that the management base of the company is undermined. In that sense, compliance is extremely important for companies. Therefore, there seems to be no other way to prevent breaches from happening apart from making sure that the organization has open channels of communication rather than being divided into silos, and that the "left hand" always knows what the "right hand" is doing; strengthening monitoring systems; and promoting compliance education for employees.

By the way, as you know, our company has a vast business reach, covering Europe, the United States, China, Taiwan, and South Korea, and many foreigners are working with us. Advantest is a truly diverse company. The problem is that for such companies, I feel the biggest challenge is whether the compliance policy established at the head office can be spread to employees all over the world.

Small compliance violations may cause big problems. When an issue occurs, it is important not to overlook it and to hold discussions at the Audit and Supervisory Committee and the board of directors. I hope to do my part to ensure that Advantest maintains a flawless compliance record.

### Thoughts about Corporate Governance

(Dialogue between CEO and Outside Director)



### Yoshiaki Yoshida



Ms. Sayaka Sumida, who was appointed as a member of the Audit and Supervisory Committee at this year's Annual General Shareholders Meeting, spoke with President Yoshida about issues related to the governance of listed companies, drawing on her long experience as a certified public accountant. The moderator was Akira Ono (Executive Officer & General Manager of Human Resources Department).



First, President Yoshida, please tell us about the achievements of the Board of Directors and future challenges facing Advantest with respect to governance.

(President Yoshida) \rightarrow In the three years since I became president in January 2017, we have formulated a mediumto long-term management policy, revised "The Advantest Way" to clarify our corporate philosophy and code of conduct, issued our first annual integrated report, abolished our consultant and advisor system, revised all our internal rules, revised our remuneration system to ensure



transparency, and enhanced our internal reporting system for compliance. Every board meeting means a minimum of 3 hours and a maximum of 5 hours of open and heated discussion. Future issues include the planning and execution of succession plans, the narrowing down of agenda items for the Board of Directors for deeper and more thorough discussions, and education in creating sophisticated materials for that purpose. In addition, as companies are now evaluated from the perspective of their ESG initiatives and contributions to the SDGs, I am also aware of the importance of enhancing disclosure of our non-financial policies and progress.



With regard to information disclosure, Director Sumida, what issues are on your mind?

(Director Sumida) I have been working at an accounting firm for a long time as a certified public accountant, and during that time, I have seen the reality of various information disclosures related to the IR activities of many listed companies. We all believe that open disclosure is an indispensable element of corporate governance, but in Japan, there is generally a strong sense of "You first-no, you first!" and there is a limit to the voluntary improvements that will be enacted by individual companies, I've always been aware of the need for institutional reforms led by the government. Traditional Japanese companies' disclosure stance has focused on meeting statutory disclosure requirements, and efforts to determine optimal disclosure content from the perspective of shareholders and investors have not always been sufficient, in my opinion. In that regard, I think the Stewardship Code and Corporate Governance Code announced in 2014 and 2015, respectively, had a salutary effect on improving corporate disclosure stances. This has led to the expansion of non-financial information disclosure related to ESG and the SDGs, which is frequently emphasized these days.

(President Yoshida) The government has encouraged companies to aim for ROE 8% and restore Japan's earning power. The reason for this is that Japanese companies have been earning less than their counterparts in Europe, America and Asia. I think that there was a time when we were content to just compare ourselves to our Japanese peers without looking at the rest of the world, but now we must hold ourselves to global standards of achievement. Regarding governance, I attach great importance to the perspective of outside directors. While discussing exactly what we can and cannot do with the rest of the Board of Directors, I'm committed to openly disclosing information.



What do you think recent corporate scandals tell us about the need for compliance systems?

(President Yoshida) \rightarrow In Advantest's case, 95% of our sales are overseas and so are more than half of our employees. The customs and logic of Japan, where we have our headquarters, may not always operate globally. There are regional differences due to history, culture, and customs that must be handled carefully. However, there are certain lines that cannot be crossed, and these must be enforced clearly and without exception. I believe it is the responsibility of top management to convey this to employees and educate them in the importance of compliance.

(Director Sumida) Looking at the scandals that have occurred at various companies, I think they are a result of people not being able to stand up for principles that should be obvious to every schoolchild. The spirit of compliance cannot be instilled overnight. I think it is very important for top management to repeatedly convey these "obvious things" to employees over and over again in their messaging in order to create a solid organizational culture.

(President Yoshida) > Just one scandal can cause a catastrophic loss of trust in a company. Of course, education to prevent scandals is important, but we have also



been focusing on crisis management on the premise that scandals may and will occur in the future, for example, by expanding our internal reporting system to make sure nothing ever gets swept under the carpet.



What are Advantest's challenges regarding diversity, especially in terms of women's advancement?

(Director Sumida) In the world of accountant, little distinction is made between men and women. I myself have always believed that chances will come my way if I do not put artificial limits on myself. Due to recent workstyle reforms, increased productivity has made it easier to avoid overtime. This has created a work environment that is friendlier to women, who used to have difficulty balancing work with childbirth and childcare. I think this means that we no longer have to worry about gender differences.

(President Yoshida) Advantest has relatively few female employees, so there are female department managers, but no female executive officers or vice presidents yet. I think this is one of our challenges. To promote the active participation of women, I believe it is important not to give special consideration to women, but to give them equal opportunities regardless of gender, and promote them according to their abilities and motivation, just as we do for

(Director Sumida) \( \) I also believe that privileging women just because they are women is lamentable, in a sense. I think it is important to treat employees equally based on their individual abilities and motivations, and it is also important for top management to clearly communicate that

### Corporate Governance

#### Our Basic Approach to Corporate Governance

Advantest's corporate mission is "enabling leading-edge technologies." The Advantest Group constantly strives to improve so that we can offer products and services that satisfy customers around the world, and contribute to society through the development of advanced technologies.

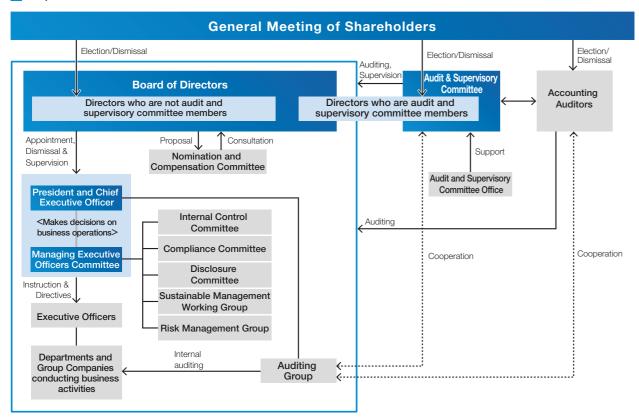
In accordance with this mission, and in response to our mandate from stakeholders, Advantest aims to achieve a sustainable level of business development for the Group

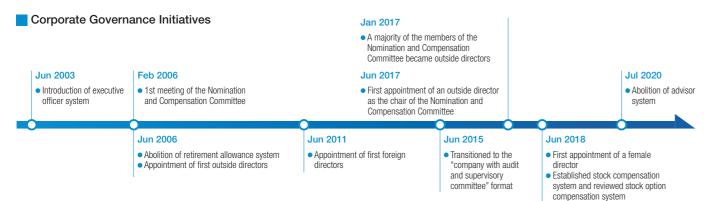
and to enhance corporate value over the medium to long term. To that end, the Group has established a fair, efficient, and highly transparent governance system. Please note that our Corporate Governance Basic Policy is available on our website at the following link:



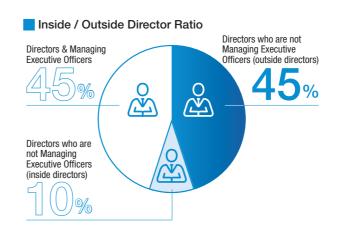
https://www.advantest.com/investors/managementpolicy/corporate-governance

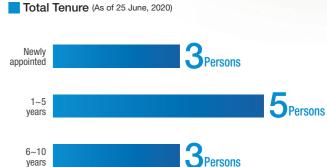
#### Corporate Governance Scheme

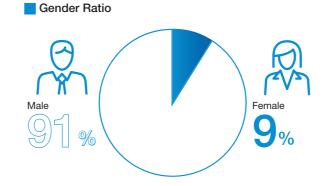


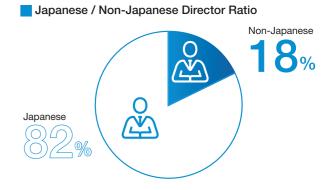


#### **Governance Highlights**









#### Chairpersons

### Yoshiaki Yoshida

Board of Directors (CEO, Inside director)

### Yuichi Kurita

Audit & Supervisory Committee (Non-Managing Executive Officer, Inside director)

#### **Toshimitsu Urabe**

Nomination and Compensation Committee (Non-Managing Executive Officer, Outside director)

#### List of Governance Systems (As of June 25, 2020)

Structure	Company with an Audit and Supervisory Committee
Number of Director	11 Persons Directors & Managing Executive Officers (Inside) Directors who are not Managing Executive Officers (Inside) Directors who are not Managing Executive Officers (Outside) Directors who are not Managing Executive Officers (Outside) Directors who are not Managing Executive Officers (Outside)
Term of Office for Directors	1 year (2 years for directors who are members of the Audit and Supervisory Committee)
Incentive for Directors	Performance-based Remuneration System (Executive directors only)
Disclosure of Compensation for individual Directors	Only Directors who received Compensation of 100 Million yen or More
Committee (voluntary basis)	Nomination and Compensation Committee
Number of Audit and Supervisory Committee member	3 Persons
Number of Outside Director among above	2 Persons
Number of Independent Directors	5 Persons
Accounting Auditor	Ernst & Young ShinNihon LLC
Executive Officer System	In Place

### Board of Directors / Board Effectiveness

#### Role of the Board of Directors

The Board of Directors of Advantest, as the company's highest management decision-making body, determines important matters such as the management policy and management strategy of the entire group, and also monitors and supervises the execution of business by those responsible. By including multiple outside directors as members of the Board of Directors, we have strengthened the oversight and supervisory functions of the Board of Directors. At meetings of the Board of Directors, directors with a wide range of knowledge and experience express their opinions from various perspectives and hold lively discussions of the agendas proposed by management. These meetings review the company's mid- to long-term management policy, executive appointment and compensation, budget and performance settlement of accounts, M&A proposals, etc. and are held about once every month, lasting about 3 to 5 hours. The current board of directors is composed of five inside executive directors, one inside non-executive directors, and five outside non-executive directors, for a total of 11 members (this includes all directors who are also Audit and Supervisory Committee members). Two of the directors are non-Japanese and one is a woman. In order to maintain seamless communication among directors, we have arranged for simultaneous interpretation at meetings of the Board of Directors so that we can speak freely in both Japanese and English. Materials and minutes are also translated into English. We endeavor to provide the materials to directors no less than three business days before meetings in principle. Details of the members of the Board of Directors are as described on page 55 to 56. The Chairman of the Board of Directors is Yoshiaki Yoshida, Representative Director, President and CEO of the Advantest Group.

#### Activities of the Board of Directors

Main Actions Taken by the Board of Directors

#### Revision of The Advantest Way

Advantest recently revised The Advantest Way to clarify our management mission, vision, core values, action guidelines and action standards, taking into account the opinions of outside directors and overseas executive officers offered at meetings of the Board of Directors. Outside directors also advised the Board that employees around the world need to be more aware of The Advantest Way, so we are holding workshops around the world to raise awareness. → See pages P41-42

#### Review of Important Rules

We have reviewed important rules such as the Regulations of the Board of Directors. The process of sending information to outside directors in advance and confirming their opinions has enabled us to enact more appropriate reg-

#### Enhancement of Internal Reporting System

Since outside directors suggested that our internal reporting system be expanded, we have set up an outside desk to accept anonymous reports on incidents and to enable reports from outside the company. → See page P49

#### Advantest's COVID-19 Response

The Board of Directors heard reports about the COVID-19 pandemic and its impact on Advantest's business, and discussed it.

#### **Results of Board Meeting Effectiveness** Survey

Advantest distributes a survey in the form of a questionnaire to all directors every March through April to evaluate the effectiveness of the board of directors. The main items to be evaluated are as follows:

#### Structure of the board of directors

Number of members, diversity of members, status of outside directors with respect to other concurrent positions, etc.

#### Management of the board of directors

Timing of distribution of materials, content of materials, prior disclosure of agenda, number of agenda items, frequency of board meetings, chairman's effectiveness, quality of online meetings/simultaneous interpretation, etc.

#### Agenda of the board of directors

Management strategy, delegation to executives, succession plan, compensation system, risk, conflict of interest, appointment/dismissal of directors, compliance, etc.

#### Board of directors support system

Reports from the Nomination and Compensation Committee, provision of information to outside directors, training for directors, use of experts, etc.

#### Result in FY2018

The results of the fiscal 2018 survey showed that it was necessary to formulate a succession plan for representative directors, reanalyze risks affecting Advantest's business, and consider the training provided for directors. The status of each of these items is as follows:

#### Status of Actions Required

- Advantest is currently working on the formulation of a succession plan for the representative director. In the future, the Nomination and Compensation Committee will deliberate on it and the board of directors will take the initiative in implementing it.
- Regarding re-evaluation of risks affecting Advantest's business, the executive side analyzed these risks and their discussion was published in our securities report, including the specific risks.
- Executive officers who had not attended governance training attended training related to governance, and in addition, lectures by ESG and corporate value enhancement experts were held for Japanese directors and executive officers.

The FY2019 effectiveness evaluation of the board of directors was also discussed at the board of directors meeting in May 2020. At that time, it was confirmed that the composition of the board of directors was appropriate and that the board of directors exchanged opinions freely. On the other hand, the following points were raised for future improvement:

- Materials distributed by the Board of Directors and explanation method
- Method of reporting from the Nomination and **Compensation Committee**
- How outside directors can best utilize outside experts

### Audit System / Nomination and Compensation Committee / Others

#### **Audit System**

Advantest transitioned to the status of a company with an Audit and Supervisory Committee on June 24, 2015. In accordance with our audit policy and audit plan and division of duties, Audit and Supervisory Committee members attend important meetings such as the Board of Directors, Managing Executive Officers Committee, Internal Control Committee, Compliance Committee, and Disclosure Committee, hear reports on the execution of duties from the directors and executive officers responsible, inspect important decision documents, investigate the status of operations and assets of the head office and major subsidiaries in Japan and overseas, and also audit the performance of executive officers, and other business execution organizations in cooperation with the Audit Office and other internal control departments. The Audit and Supervisory Committee consists of one internal director and two external directors. The Audit and Supervisory Committee implements its audit and supervisory functions by attending important meetings, collecting information by listening to business reports from the executive departments, and strengthening cooperation with our accounting auditor and the internal audit department. One full-time member has been named to the Audit and Supervisory Committee to improve the quality of its work. Mr. Yuichi Kurita, inside director and Audit and Supervisory Committee Member, has many years of experience as an officer in charge of corporate planning, finance and management of the Company. Another member of the Audit and Supervisory Committee, Ms. Sayaka Sumida, is an outside director who works as a certified public accountant at an audit corporation. Both have experience and sufficient financial and accounting knowledge. In addition, Mr. Koichi Nanba, an outside director and Audit and Supervisory Committee Member, has extensive knowledge of legal affairs. Mr. Kurita chairs the Audit and Supervisory Committee. Outside directors who are Audit and Supervisory Committee members attend meetings of the Internal Control Committee and participate in on-site audits of business execution departments conducted by the full-time Audit and Supervisory Committee member as necessary to actively audit and supervise the status of business execution of the company. In addition. the Audit and Supervisory Committee collaborates with our accounting auditor, the Audit Office and other internal control departments, and the Audit & Supervisory Board Members of Advantest Group companies, ensuring opportunities for exchanging opinions and communication.

With regard to internal audits, we have established an Audit Office, and multiple dedicated employees routinely monitor the maintenance and operation status of the company's internal controls, as well as identifying problems, pointing out issues, and making recommendations for improvement.

Regarding accounting audits, Advantest has an audit contract with Ernst & Young ShinNihon LLC and receives

prescribed audits. The certified public accountants who executed Advantest's accounting audit work in FY2019 are Mr. Makoto Usui, Mr. Akivuki Matsumoto, and Mr. Keiichi Wakimoto, All of them have continuously performed Advantest's audits for up to seven years. In addition, assistants performing Advantest's accounting audit work consist mainly of certified public accountants and include those with specialized knowledge, such as system experts.

#### **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 on the appointment, selection, and dismissal of Directors and Executive Officers, and to determine their compensation. The Nomination and Compensation Committee is responsible for the functions of both the Nomination Committee and the Compensation Committee. The Nomination and Compensation Committee is responsible for improving the fairness, rationality and transparency of the appointment, selection, and dismissal of Directors and Executive Officers and of their compensation.

The Nomination and Compensation Committee is composed of members selected from among the directors by resolution of the Board of Directors. To incorporate an independent perspective, the majority of the members are outside directors. The Human Resources Department serves as the secretariat of the Nomination and Compensation Committee.

#### Main Discussion Agenda of the Nomination and Compensation Committee in 2019

- Discussion of director and executive officer
- Fixed remuneration, performance-linked bonuses, stock compensation levels, and future plans
- The advisor system
- Discussion of appointment contracts for directors and executive officers

The current members of the Committee are Toshimitsu Urabe, Koichi Nanba and Yoshiaki Yoshida. Toshimitsu Urabe is the chairman.

Regarding directors and executive officers, the Nomination and Remuneration Committee shall comply with the policy and procedures for appointment, selection, and dismissal of directors and executive officers established by the Board of Directors, and shall recommend 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-to-long term. In addition, regarding outside directors, in addition to the

aforementioned the policy and procedures, the "Independence Criteria for Outside Directors" established by the Board of Directors shall also apply. Candidates recommended to the Board of Directors have a wealth of knowledge and be expected to contribute positively to the Board of Directors.

#### Appointment and Selection Criteria for Outside Directors

The Committee comprehensively considers the personality, concurrent status as a director of other companies, the number of years as an outside director of the Company, etc., to select candidates from among those who meet the independence criteria established by Advantest and have any of the following qualifications:

- Person with legal expertise, such as a lawyer
- Person who has experience in corporate management
- Person who has considerable knowledge of finance and accounting
- Person who has knowledge and experience in industries related to Advantest's business such as semiconductor-related industries
- Person who has extensive experience in research and development
- Others who have background or ability equivalent to the above items

#### **Managing Executive Officers Committee**

The Managing Executive Officers Committee is made up of executive officers and higher, and deliberates on a certain number of important matters as decided by executive organizations. Since Advantest has a number of non-Japanese managing executive officers, discussions incorporate each country's perspective and reflect various opinions. Meetings are held about twice a month, mainly in the form of web conferences.

#### **Internal Control Committee**

The Internal Control Committee identifies important risks for the entire Group and analyzes them. At the same time, it has clarified which departments are responsible for each risk, and policies and procedures for dealing with them. The Internal Control Committee consists of 23 members, including Unit Leaders and administration department personnel. One member is an outside lawyer who acts as advisor. In addition, outside directors can participate as observers.

#### **Compliance Committee**

The Compliance Committee promotes compliance activities, including education for employees provides education on human rights issues, and handles consultations and complaints. The Compliance Committee consists of nine members, one of whom is an outside lawyer.

#### **Disclosure Committee**

The Disclosure Committee oversees proper disclosure by the company. The Disclosure Committee consists of 26 members, including Unit Leaders.

#### **Sustainable Management Promotion Working Group**

The Sustainable Management Promotion Working Group helps each business division incorporate policies related to ESG/the SDGs into the strategies it formulates on the basis of policies and priority measures enacted by higher-ranking organizations such as the Managing Executive Officers Committee, and supports the business divisions in carrying out activities in line with the PDCA cycle. It consists of 41 members, chiefly the leaders of all business divisions, including four executive directors.

#### **Risk Management Committee**

The Risk Management Committee is responsible for formulating measures to respond to the possibility of events such as disasters and other incidents that would make it difficult to continue business, and any possibility of harm to our employees, as well as the possibility of scandals that lead to social problems. The Committee consists of 18 members, including executive officers, general managers, deputy general managers, business managers, and functional members, and is chaired by the president.

In FY2019, the Committee confirmed the safety of employees during and after Typhoon Hagibis and executed Advantest's overall COVID-19 response.

### Compensation and the General Meeting of Shareholders

#### **Design of Compensation to increase Corporate Values**

#### Compensation Policy and Process

Compensation for directors and executive officers is described in "Policies and procedures for determining Compensation for directors and executive officers," as follows. Compensation consists of fixed compensation, bonuses, and stock compensation linked to business performance, in proportions deliberated on by the Nomination and Compensation Committee and decided by the Board of Directors. Directors who are Audit and Supervisory Committee members and outside directors receive only fixed compensation.

#### Policies and Procedures for Determining Compensation for Directors and Executive Officers

#### 1. Purpose

Regarding the compensation of directors and executive officers, this policy has been devised so as to contribute to the sustainable development of the Group, improvement of corporate value over the medium to long term, contribution to shareholder profits, hiring and retention of excellent management resources, and optimization of motivation.

#### 2. Compensation Structure and Decision Policy

Compensation for directors (excluding directors who are Audit and Supervisory Committee members) and executive officers is structured to best achieve the purpose defined in 1. above, consisting of 1) fixed compensation, 2) performance-based bonuses, and 3) stock compensation. The amount and ratio of these shall be set appropriately. In consideration of the role and

#### independence of outside directors, only fixed compensation shall be paid them.

- (1) Regarding fixed compensation, the Committee shall refer to external objective data and set it at an appropriate level according to the duties and responsibilities that executives carry out.
- (2) Positioning performance-based bonuses as a shortterm incentive, the Committee calculates them based on performance indicators such as sales, operating margin, net income, and ROE of the Group.
- (3) Stock compensation is positioned as a long-term incentive and a way of sharing value with shareholder. Stock options and performance-linked stock compensation are granted on the basis of comprehensive consideration of performance trends, business environment, stock price levels, etc. With regard to performance-based stock compensation, the number of shares received will fluctuate based on performance indicators such as sales, operating margin, net income, and ROE of the Group for three consecutive fiscal years.

#### 3. Compensation Decision Procedure

Compensation for directors (excluding directors who are Audit and Supervisory Committee members) and executive officers shall be discussed by the Nomination and Compensation Committee based on consultation with the Board of Directors and will be proposed to the Board of Directors. The Board of Directors shall discuss proposals from the Nomination and Compensation Committee and determine compensation. The remuneration of directors who are Audit and Supervisory Committee members will be determined through consultation with directors who are Audit and Supervisory Committee members.

#### General Meeting of Shareholders as a Venue for Dialogue with Shareholders

We regard the General Meeting of Shareholders as an opportunity for dialogue with our shareholders. In 2020, we prioritized COVID-19 safety precautions to ensure the safety of our shareholders and their families, holding the event at a larger venue than usual so that shareholders could feel at ease. In addition, for shareholders who could not attend in person, for the first time we posted video of the business reports delivered at the meeting on our website, enabling shareholders to access them on demand. Going forward, we will continue to take into consideration the fact that some shareholders may find it difficult to attend in person, and enable a greater number of shareholders to participate, by providing more open access to general meetings of shareholders.



#### **Upper Limits on Director Compensation**

	Fixed compensation	Performance-linked stock compensation	Stock options		
Directors who are not Audit and Supervisory Committee members (excluding outside directors)	No more than JPY600	No more than JPY200 million per year*2	No more than JPY200 million per year*2		
Outside directors who are not Audit and Supervisory Committee members	million per year*1	N/A			
Directors who are Audit and Supervisory Committee members	No more than JPY100 million per year*1	- N/A			

<sup>\*1</sup> By resolution of the 73rd Ordinary General Meeting of Shareholders held on June 24, 2015

#### Directors Who Received Compensation of 100 Million yen or More and the Amount of Compensation Thereof (FY2019)

	Total Amount of			Total Amount of Compensation by Type				
Name	Compensation (million JPY)	Type of Officer (As of March 31, 2020)	Company Category	Fixed- Compensation	Performance- linked Bonus	Stock Options	Performance- based Stock Renumeration	
Yoshiaki Yoshida	149	Representative Director, President and CEO	Advantest Corporation	60	51	20	18	
Soichi Tsukakoshi	101	Director, Managing Executive Officer	Advantest Corporation	41	37	11	12	
Hans-Juergen	138	Director, Managing Executive Officer	Advantest Corporation	10	-	11	12	
Wagner	130	Managing Director	Advantest Europe GmbH	57	48	-	-	

#### Composition of Compensation for Directors (FY 2019)



<sup>\*</sup> There were five Outside Directors as of March 31, 2020, but the above compensation amounts and numbers include one inside director and two outside directors who stepped down

<sup>\*2</sup> By resolution of the 76th Ordinary General Meeting of Shareholders held on June 27, 2018

# 11 Year Financial Highlights

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

			US GAAP						FRS		
											l
	FY2009 (2010/3)	FY2010 (2011/3)	FY2011 (2012/3)	FY2012 (2013/3)	FY2013 (2014/3)	FY2014 (2015/3)	FY2015 (2016/3)	FY2016 (2017/3)	FY2017 (2018/3)	FY2018 (2019/3)	FY2019 (2020/3
ancial Results											
scal year											
Net sales	53,225	99,634	141,048	132,903	111,878	163,803	162,111	155,916	207,223	282,456	275,89
Gross profit	25,928	48,470	68,748	68,920	49,333	91,755	91,475	89,740	106,588	154,039	156,49
Selling, general and administrative expenses*1	37,567	42,359	67,911	68,840	85,702	74,897	78,878	75,835	82,101	89,377	97,78
Operating income	(11,639)	6,111	837	80	(36,369)	16,858	12,597	13,905	24,487	64,662	58,70
EBITDA*2	(7,325)	10,320	7,675	8,143	(28,101)	21,588	17,562	19,063	29,511	69,629	69,60
ncome (loss) before income taxes	(9,926)	5,551	(3,442)	(1,293)	(35,501)	20,767	11,767	15,022	24,282	66,211	58,57
Net income (loss) attributable to owners of the parent	(11,454)	3,163	(2,195)	(3,821)	(35,540)	16,753	6,694	14,201	18,103	56,993	53,53
Cash flows from operating activities	(17,746)	(693)	12,302	(2,215)	(3,776)	24,481	7,728	15,833	28,254	44,792	66,47
Cash flows from investing activities	10,824	(5,828)	(37,670)	(11,498)	(4,711)	(1,310)	(2,395)	(3,521)	(2,329)	(15,915)	(38,81
Cash flows from financing activities	(1,803)	(12,028)	9,887	(2,914)	27,202	(1,298)	(13,531)	(1,002)	(15,237)	(13,724)	(17,91
Free cash flows*3	(6,922)	(6,521)	(25,368)	(13,713)	(8,487)	23,171	5,333	12,312	25,925	28,877	27,65
Cash and cash equivalents at end of year	96,439	75,323	58,218	45,668	68,997	97,574	85,430	95,324	103,973	119,943	127,70
scal year-end	.,				,	,		, .	-,-	-,-	
Shareholders' equity	150,242	138,132	131,552	141,241	116,252	101,810	93,619	109,517	124,610	198,731	231,4
Fotal assets	188,663	180,312	219,226	225,515	229,856	233,237	210,451	231,603	254,559	304,580	355,7
ormation per share	,	/ -	-, -		-,		-, -	. ,	,,,,,,,	,	
Basic earnings (loss) per share (¥)	(64.09)	18.03	(12.67)	(22.03)	(204.10)	96.15	38.35	81.07	101.94	302.35	270.
Diluted earnings (loss) per share (¥)	(64.09)	18.03	(12.67)	(22.03)	(204.10)	87.67	35.38	73.95	92.69	287.37	268.
Shareholders' equity per share (¥)	840.65	797.20	759.22	812.70	667.36	583.28	536.28	619.33	696.04	1,004.53	1,166.
Dividend per Share	10.0	10.0	15.0	20.0	15.0	15.0	20.0	25.0	32.0	92.0	82
Number of shares issued at year-end	199,566,770	199,566,770	199,566,770	199,566,770	199,566,770	199,566,770	199,566,770	199,566,770	199,566,770	199,566,770	199,566,7
anagement indicator											
Overseas net sales as a % of total net sales	77.5	77.5	88.6	89.4	89.1	92.0	92.0	88.2	93.2	94.7	94
Net sales per employee (¥100 million)	16.9	31.5	31.6	29.0	24.2	35.9	36.1	35.3	46.5	61.0	54
Gross profit margin	48.7	48.6	48.7	51.9	44.1	56.0	56.4	57.6	51.4	54.5	56
Operating Income Margin	(21.9)	6.1	0.6	0.1	(32.5)	10.3	7.8	8.9	11.8	22.9	21
Net income ratio	(21.5)	3.2									
SG&A ratio to sales		0.2	(1.6)	(2.9)	(31.8)	10.2	4.1	9.1	8.7	20.2	
	70.6	42.5	(1.6) 48.1	(2.9) 51.8	76.6	45.7	4.1 48.6	48.7	39.6	31.6	35
	17,896		48.1 30,303	51.8 33,062	76.6 32,670	45.7 29,507	48.6 31,298	48.7 31,170	39.6 33,540	31.6 37,852	35 40,0
R&D Expenses (¥100 million) R&D as a % of total net sales	17,896 33.6	42.5 21,197 21.3	48.1 30,303 21.5	51.8 33,062 24.9	76.6 32,670 29.2	45.7 29,507 18.0	48.6 31,298 19.3	48.7 31,170 20.0	39.6 33,540 16.2	31.6 37,852 13.4	35 40,07 14
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures	17,896 33.6 34	42.5 21,197 21.3 38	48.1 30,303 21.5 70	51.8 33,062 24.9 126	76.6 32,670 29.2 56	45.7 29,507 18.0 42	48.6 31,298 19.3 40	48.7 31,170 20.0 48	39.6 33,540 16.2 54	31.6 37,852 13.4 66	35 40,0° 14
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million)	17,896 33.6 34 43	42.5 21,197 21.3 38 42	48.1 30,303 21.5 70 68	51.8 33,062 24.9 126 81	76.6 32,670 29.2 56 83	45.7 29,507 18.0 42 47	48.6 31,298 19.3 40 50	48.7 31,170 20.0 48 52	39.6 33,540 16.2 54 50	31.6 37,852 13.4 66 50	19 35 40,0 14 9
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million)	17,896 33.6 34 43 (13.8)	42.5 21,197 21.3 38 42 10.4	48.1 30,303 21.5 70 68 5.4	51.8 33,062 24.9 126 81 6.1	76.6 32,670 29.2 56 83 (25.1)	45.7 29,507 18.0 42 47 13.2	48.6 31,298 19.3 40 50 10.8	48.7 31,170 20.0 48 52 12.2	39.6 33,540 16.2 54 50 14.2	31.6 37,852 13.4 66 50 24.7	35 40,0° 14 1 1 25
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million) EBITDA margin	17,896 33.6 34 43 (13.8) 158	42.5 21,197 21.3 38 42 10.4	48.1 30,303 21.5 70 68 5.4 126	51.8 33,062 24.9 126 81 6.1	76.6 32,670 29.2 56 83 (25.1)	45.7 29,507 18.0 42 47	48.6 31,298 19.3 40 50	48.7 31,170 20.0 48 52	39.6 33,540 16.2 54 50 14.2	31.6 37,852 13.4 66 50 24.7	35 40,0 14 1 25 1
R&D Expenses (¥100 million)  R&D as a % of total net sales  Capital Expenditures  Depreciation and Amortization (¥100 million)  EBITDA margin  Cash conversion cycle (day)	17,896 33.6 34 43 (13.8)	42.5 21,197 21.3 38 42 10.4	48.1 30,303 21.5 70 68 5.4 126 60.0	51.8 33,062 24.9 126 81 6.1	76.6 32,670 29.2 56 83 (25.1)	45.7 29,507 18.0 42 47 13.2	48.6 31,298 19.3 40 50 10.8	48.7 31,170 20.0 48 52 12.2	39.6 33,540 16.2 54 50 14.2	31.6 37,852 13.4 66 50 24.7	36 40,0 14 1 26 1
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million) EBITDA margin Cash conversion cycle (day) Shareholders' equity ratio	17,896 33.6 34 43 (13.8) 158	42.5 21,197 21.3 38 42 10.4	48.1 30,303 21.5 70 68 5.4 126	51.8 33,062 24.9 126 81 6.1	76.6 32,670 29.2 56 83 (25.1)	45.7 29,507 18.0 42 47 13.2	48.6 31,298 19.3 40 50 10.8	48.7 31,170 20.0 48 52 12.2 186	39.6 33,540 16.2 54 50 14.2	31.6 37,852 13.4 66 50 24.7	35 40,0 14 1 25 1 65 24
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million) EBITDA margin Cash conversion cycle (day) Shareholders' equity ratio	17,896 33.6 34 43 (13.8) 158 79.6	42.5 21,197 21.3 38 42 10.4 131 76.6	48.1 30,303 21.5 70 68 5.4 126 60.0	51.8 33,062 24.9 126 81 6.1 172 62.6	76.6 32,670 29.2 56 83 (25.1) 192 50.6	45.7 29,507 18.0 42 47 13.2 143 43.7	48.6 31,298 19.3 40 50 10.8 163 44.5	48.7 31,170 20.0 48 52 12.2 186 47.3	39.6 33,540 16.2 54 50 14.2 137 49.0	31.6 37,852 13.4 66 50 24.7 132 65.2	35 40,0 14 1 25 1 65 24
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million) EBITDA margin Cash conversion cycle (day) Shareholders' equity ratio ROE Dividend payout ratio	17,896 33.6 34 43 (13.8) 158 79.6 (7.3)	42.5 21,197 21.3 38 42 10.4 131 76.6 2.2	48.1 30,303 21.5 70 68 5.4 126 60.0 (1.6)	51.8 33,062 24.9 126 81 6.1 172 62.6 (2.8)	76.6 32,670 29.2 56 83 (25.1) 192 50.6 (27.6)	45.7 29,507 18.0 42 47 13.2 143 43.7	48.6 31,298 19.3 40 50 10.8 163 44.5 6.9	48.7 31,170 20.0 48 52 12.2 186 47.3	39.6 33,540 16.2 54 50 14.2 137 49.0	31.6 37,852 13.4 66 50 24.7 132 65.2 35.3	35 40,0° 14 
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million) EBITDA margin Cash conversion cycle (day) Shareholders' equity ratio ROE Dividend payout ratio US Dollar to Yen exchange rate	17,896 33.6 34 43 (13.8) 158 79.6 (7.3)	42.5 21,197 21.3 38 42 10.4 131 76.6 2.2 55.5	48.1 30,303 21.5 70 68 5.4 126 60.0 (1.6)	51.8 33,062 24.9 126 81 6.1 172 62.6 (2.8)	76.6 32,670 29.2 56 83 (25.1) 192 50.6 (27.6)	45.7 29,507 18.0 42 47 13.2 143 43.7 18.5	48.6 31,298 19.3 40 50 10.8 163 44.5 6.9	48.7 31,170 20.0 48 52 12.2 186 47.3 14.0	39.6 33,540 16.2 54 50 14.2 137 49.0 15.5	31.6 37,852 13.4 66 50 24.7 132 65.2 35.3 30.4	35 40,0 14 1 25 1 65 24 30
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million) EBITDA margin Cash conversion cycle (day) Shareholders' equity ratio ROE Dividend payout ratio US Dollar to Yen exchange rate	17,896 33.6 34 43 (13.8) 158 79.6 (7.3) —	42.5 21,197 21.3 38 42 10.4 131 76.6 2.2 55.5	48.1 30,303 21.5 70 68 5.4 126 60.0 (1.6) —	51.8 33,062 24.9 126 81 6.1 172 62.6 (2.8) —	76.6 32,670 29.2 56 83 (25.1) 192 50.6 (27.6) — 100	45.7 29,507 18.0 42 47 13.2 143 43.7 18.5 15.6	48.6 31,298 19.3 40 50 10.8 163 44.5 6.9 52.2	48.7 31,170 20.0 48 52 12.2 186 47.3 14.0 30.8	39.6 33,540 16.2 54 50 14.2 137 49.0 15.5 31.4	31.6 37,852 13.4 66 50 24.7 132 65.2 35.3 30.4	36 40,0 14 1 25 1 65 24 30 1
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million) EBITDA margin Cash conversion cycle (day) Shareholders' equity ratio ROE Dividend payout ratio US Dollar to Yen exchange rate Euro to Yen exchange rate	17,896 33.6 34 43 (13.8) 158 79.6 (7.3) — 92 131	42.5 21,197 21.3 38 42 10.4 131 76.6 2.2 55.5 85 113	48.1 30,303 21.5 70 68 5.4 126 60.0 (1.6) — 79 111	51.8 33,062 24.9 126 81 6.1 172 62.6 (2.8) — 83 105	76.6 32,670 29.2 56 83 (25.1) 192 50.6 (27.6) — 100 133	45.7 29,507 18.0 42 47 13.2 143 43.7 18.5 15.6 108 140	48.6 31,298 19.3 40 50 10.8 163 44.5 6.9 52.2 121 133	48.7 31,170 20.0 48 52 12.2 186 47.3 14.0 30.8 108 119	39.6 33,540 16.2 54 50 14.2 137 49.0 15.5 31.4 111 129	31.6 37,852 13.4 66 50 24.7 132 65.2 35.3 30.4 110 129	35 40,0° 14 11 25 11 65 24 30 11 1:
R&D Expenses (¥100 million)  R&D as a % of total net sales  Capital Expenditures  Depreciation and Amortization (¥100 million)  EBITDA margin  Cash conversion cycle (day)  Shareholders' equity ratio  ROE  Dividend payout ratio  US Dollar to Yen exchange rate  Euro to Yen exchange rate  erformance-related data  Global real GDP grouwth (Source: IMF) %	17,896 33.6 34 43 (13.8) 158 79.6 (7.3) — 92 131 2009	42.5 21,197 21.3 38 42 10.4 131 76.6 2.2 55.5 85 113 2010	48.1 30,303 21.5 70 68 5.4 126 60.0 (1.6) — 79 111 2011	51.8 33,062 24.9 126 81 6.1 172 62.6 (2.8) — 83 105 2012	76.6 32,670 29.2 56 83 (25.1) 192 50.6 (27.6) — 100 133 2013	45.7 29,507 18.0 42 47 13.2 143 43.7 18.5 15.6 108 140	48.6 31,298 19.3 40 50 10.8 163 44.5 6.9 52.2 121 133 2015	48.7 31,170 20.0 48 52 12.2 186 47.3 14.0 30.8 108 119	39.6 33,540 16.2 54 50 14.2 137 49.0 15.5 31.4 111 129 2017	31.6 37,852 13.4 66 50 24.7 132 65.2 35.3 30.4 110 129 2018	36 40,0 14 1 26 1 1 65 24 30 1 1
R&D Expenses (¥100 million) R&D as a % of total net sales Capital Expenditures Depreciation and Amortization (¥100 million) EBITDA margin Cash conversion cycle (day) Shareholders' equity ratio ROE Dividend payout ratio US Dollar to Yen exchange rate Euro to Yen exchange rate	17,896 33.6 34 43 (13.8) 158 79.6 (7.3) — 92 131	42.5 21,197 21.3 38 42 10.4 131 76.6 2.2 55.5 85 113	48.1 30,303 21.5 70 68 5.4 126 60.0 (1.6) — 79 111	51.8 33,062 24.9 126 81 6.1 172 62.6 (2.8) — 83 105	76.6 32,670 29.2 56 83 (25.1) 192 50.6 (27.6) — 100 133	45.7 29,507 18.0 42 47 13.2 143 43.7 18.5 15.6 108 140	48.6 31,298 19.3 40 50 10.8 163 44.5 6.9 52.2 121 133	48.7 31,170 20.0 48 52 12.2 186 47.3 14.0 30.8 108 119	39.6 33,540 16.2 54 50 14.2 137 49.0 15.5 31.4 111 129	31.6 37,852 13.4 66 50 24.7 132 65.2 35.3 30.4 110 129	34 40,0 14 1 24 1 68 24 30 1 1

\*1 Selling, general and administrative expenses from the fiscal year ended March 31, 2015 are composed of selling, general and administrative expenses, other income/expenses. Figures until the fiscal year ended March 31, 2014 consist of research and development expenses, selling, general and administrative expenses, restructuring and impairment charges. \*2 EBITDA= Operating income + Depreciation and amortization, EBITDA margin = EBITDA/Sales \*3 Free cash flows from operating activities – Cash flows from investing activities

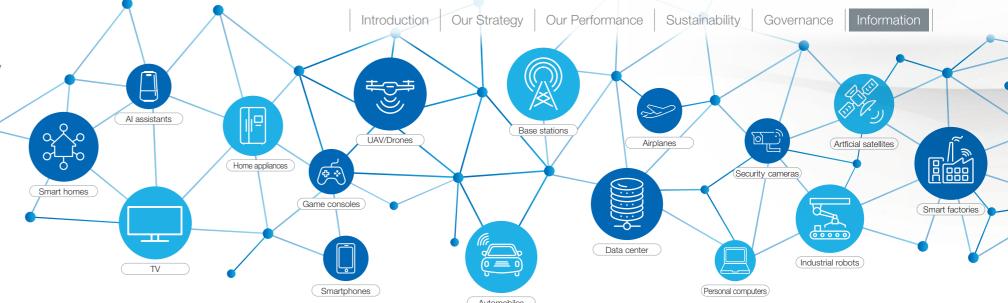
# Sustainability Accounting Standard Board (SASB) Disclosures

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

The Advantest Group reports sustainability related information based on the US Sustainability Accounting Standards Board (SASB) standards to amplify and focus our practice of rigorous disclosure. SASB standards are to help businesses around the world identify, manage and report on the sustainability topics that matter most to our investors. And it can help investors by encouraging report that is comparable within an industry. Some accounting metrics do not apply to Advantest's business activities in Japan, but in view of the purpose of these standards, we have endeavored to disclose as much information as possible.

					FY2014 (2015/3)	FY2015 (2016/3)	FY2016 (2017/3)	FY2017 (2018/3)	FY2018 (2019/3)	FY2019 (2020/3)
TOPIC	ACCOUNTING METRIC	SASB Code	CATEGORY	UNIT OF MEASURE	(2010/0)	(2510/0)	(201170)	(2010/0)	(23 10/0)	(2020, 0)
Green Gas	(1) Gross global Scope 1 emissions	TC-SC-110a.1	Quantitative	Metric tons(t) CO <sub>2</sub> -e	3,755	3,880	3,824	3,811	4,671	4,471
Emmissions	(2) Amount of total emissions from perfluorinated compunds	TC-SC-110a.2	Quantitative	Metric tons(t) CO <sub>2</sub> -e	2,384	1,085	939	339	155	177
	(1) Total energy consumed	TC-SC-130a.1	Quantitative	Gigajoules (GJ)	683,021	685,503	735,810	770,186	843,788	887,610
Energy Management in Manufacturing	(2) Percentage grid electricity	TC-SC-130a.1	Quantitative	%	76	76	78	79	79	66
	(3) Percentage renewwable	TC-SC-130a.1	Quantitative	%	14	14	12	12	11	26
	(1) Total water withdrenergy consumed	TC-SC-140a.1	Quantitative	Thousand cubic meters (m³)	283	280	288	249	281	261
Water management	(2) Total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	TC-SC-140a.1	Quantitative	%	0	0	0	0	0	0
Waste Management	Amount of hazardous waste from manufacturing, percentage recycled	TC-SC-150a.1	Quantitative	Metric tons (t)	17.4	7.1	7.7	6.4	10.1	11.9
		TC-SC-150a.1	Quantitative	%	100.0	100.0	74.1	100.0	100.0	99.9
Employee Health &	Description of efforts to assess, monitor, and reduce exposure of employ- ees to human health hazards	TC-SC-320a.1	Discussion and Analysis	-	Advantest conducts risk management for the health and safety of our employees.  (For details please refer to: https://www.advantest.com/ja/sustainability/safety)					
Safety	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	TC-SC-320a.2	Quantitative	¥	0	0	0	0	0	0
Recruiting & Manag-	Percentage of employees that are									
ing a Global & Skilled	(1) Foreign nationals	TC-SC-330a.1	Quantitative	%	7	8	8	8	8	9
Workforce	(2) Located offshore	TC-SC-330a.1	Quantitative	%	0	0	0	0	0	0
Product Lifecycle	Percentage of products by revenue that contain IEC 62474 declarable substances	TC-SC-410a.1	Quantitative	%	84	82	81	85	89	85
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 Sourcing	Description of the management of risks associated with the use of critical materials	TC-SC-440a.1	Discussion and Analysis	-	Advantest conduct risk manaç (For details please refer to: http					
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
	Total production	TC-SC-000.A	Quantitative	Output	1,031	968	1,116	1,891	2,270	2,065
	Percentage of production from owned facilities	TC-SC-000.B	Quantitative	%	39	50	39	45	53	39

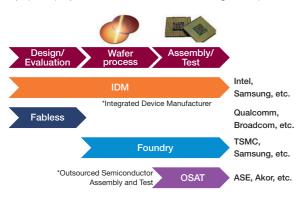
Commentary: The Semiconductor Supply Chain and Semiconductor Test



#### The Semiconductor Supply Chain: **Horizontal Disintegration**

Semiconductors used in all kinds of products, such as mobile phones, computers, home appliances, automobiles, and industrial equipment, have become indispensable to our lives. The global semiconductor market is valued at over \$400 billion.

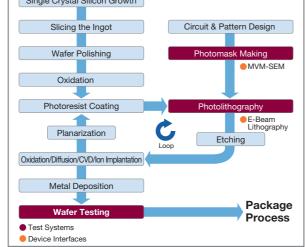
Manufacturing technology for semiconductors is evolving very quickly, and there are many specialized design and contract manufacturing companies working to respond to these advances. In the past, semiconductor design, manufacturing, and even the manufacture of semiconductor production equipment were all carried out in-house by semiconductor manufacturers--vertical integration. However, as the design circuits increased in scale and manufacturing technology became more complex, the financial burden of semiconductor development and capital investment increased, and the supply chain was gradually disintegrated across a horizontal global network of specialized providers. Today's semiconductor industry is dominated by "pure-play" foundries and "fabless" design companies.



#### **Semiconductor Production Equipment** Manufacturers

Semiconductor production involves hundreds of processes, including pattern exposure and etching. The fundamental technologies required for each process are diverse, including applied chemistry, material engineering, and electronic engineering, and each process uses equipment provided by semiconductor production equipment (SPE) manufacturers possessing specialized technology and expertise. SPE manufacturers who possess different processes and fundamental technologies also act as partners, cooperating to create advanced processes.

### **■** Wafer Process Single Crystal Silicon Growth

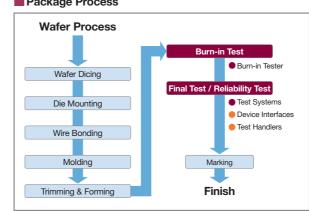


#### The Necessity of Semiconductor Test

Semiconductors that push the limits of nanometer-based technology are not always perfect. In addition to poor circuit connections and short circuits, operating voltage and timing flaws may prevent them from performing their functions. Especially with semiconductors made using stateof-the-art processes, product quality can vary significantly until the manufacturing process matures.

The test process is the only process in the long semiconductor manufacturing process whose purpose is to ensure that the products work as designed. In addition to diagnosing good and defective products, it is also possible to classify performance (grading) according to the level of electrical signals and analyze the content of defects, so that test results can be used to improve other design and manufacturing processes

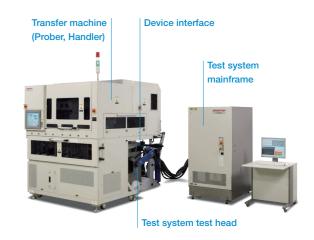
#### ■ Package Process



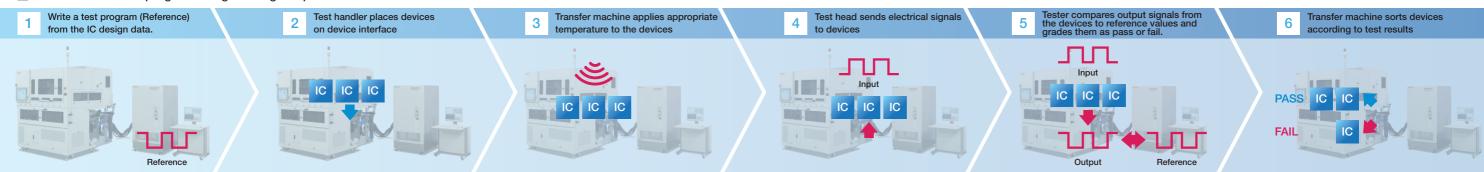
#### **Semiconductor Test Equipment**

Semiconductor test includes various test items such as checking for poor connections and short circuits, checking input / output voltage / current values, verifying logic circuit operations, and switch timing. Semiconductor test equipment integrates the electronic measurement functions required to test these items into test systems. Furthermore, since test systems are usually used in semiconductor factories, it is essential for them to provide both advanced measurement technology and mass production technology that can test large numbers of semiconductor devices efficiently.

Semiconductor test equipment contributes to the growth of the entire semiconductor industry and to society in general by supporting the automatic, high-volume, timely, and economical production of semiconductors manufactured with advanced technology.



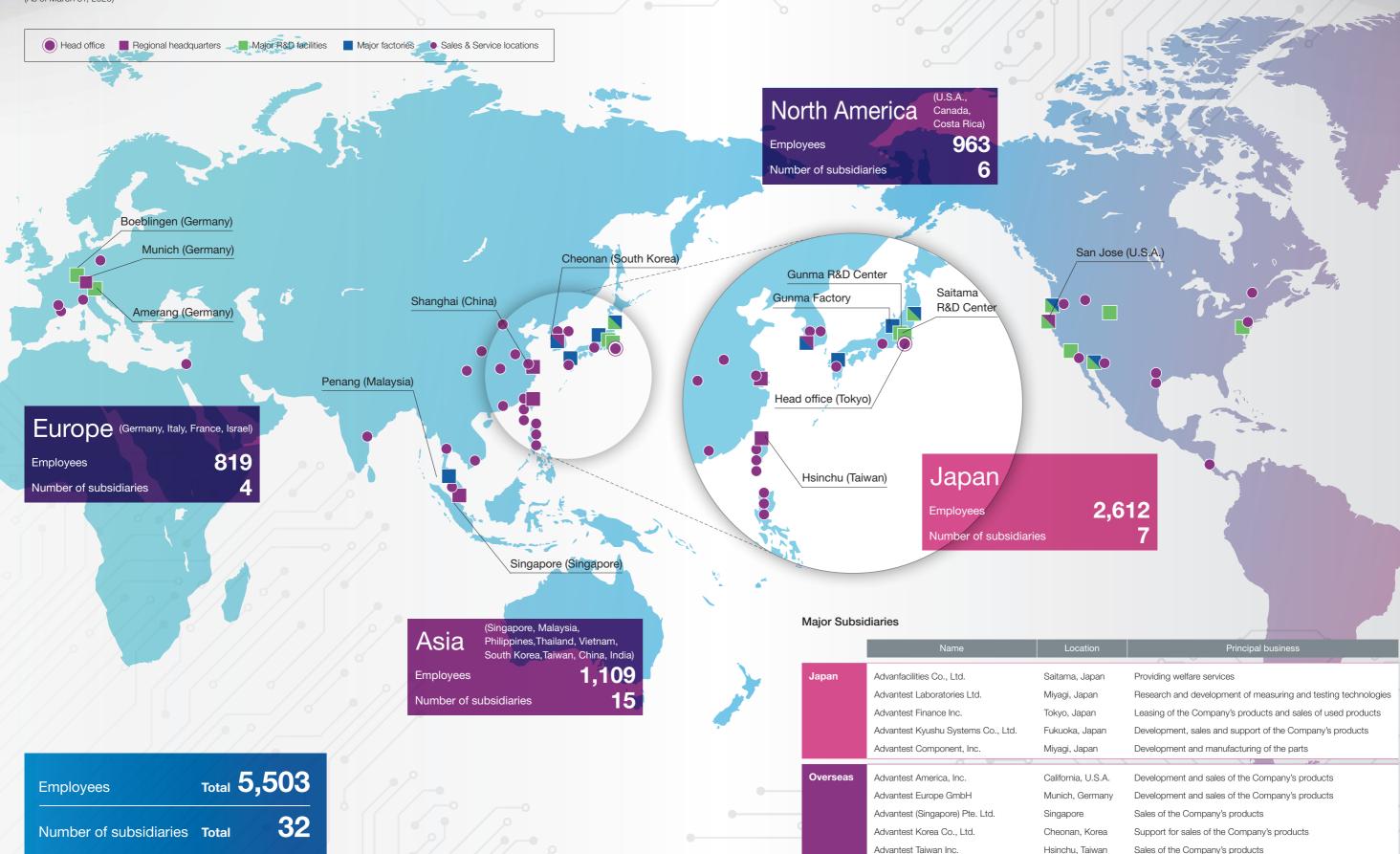
Workflow from test program design through to production test





### Global Network

(As of March 31, 2020)



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Advantest (China) Co., Ltd.

Advantest (M) Sdn. Bhd.

Shanghai, China

Penang, Malaysia

Support for sales of the Company's products

Manufacturing of the Company's products

### Corporate Overview / Stock Information

As of March 31, 2020

#### **Corporate Overview**

Registered Name ADVANTEST CORPORATION

**Head Office** Shin Marunouchi Center Bldg., 1-6-2, Marunouchi, Chiyoda-ku, Tokyo 100-0005

https://www.advantest.com/

Established December 1954 Capital 32,363 million ven

No. of Employees 5,503 (Include temporary employees.)

**Business Description** Semiconductor and Component Test System Business, Mechatronics System Business,

Services. Support and Others

#### Stock Information

April 1 through March 31 No. of Shares Outstanding Fiscal Year 199.566.770 Ordinary General Meeting of June Number of Shareholders 36.520

Shareholders

No. of Issuable Shares 440,000,000

#### Major Shareholders

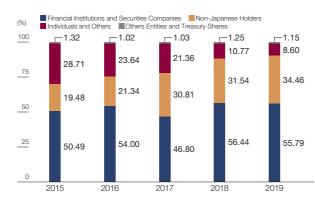
Name	Number of Shares (in thousand)	Percentage of Ownership (%)
The Master Trust Bank of Japan, Ltd. (trust account)	52,246	26.26
Japan Trustee Services Bank, Ltd. (trust account)	23,533	11.82
NORTHERN TRUST CO. (AVFC) SUB A/C NON TREATY	6,061	3.04
Trust & Custody Services Bank, Ltd. (investment trust account)	5,146	2.58
Japan Trustee Services Bank, Ltd. (trust account 4)	3,889	1.95
JP MORGAN CHASE BANK 385151	3,444	1.73
Japan Trustee Services Bank, Ltd. (trust account 5)	3,028	1.52
STATE STREET BANK WEST CLIENT - TREATY 505234	2,995	1.50
SSBTC CLIENT OMNIBUS ACCOUNT	2,376	1.19
Japan Trustee Services Bank, Ltd. (trust account 7)	2,317	1.16

(Notes) 1. Number of Shares is rounded down to the nearest thousand.
2. The number of treasury shares (614,239 shares) that Advantest owns does not

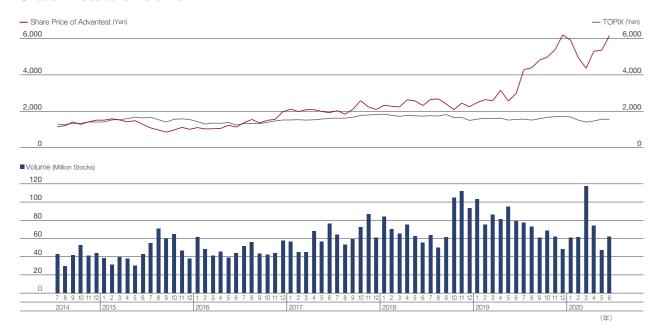
- include Advantest shares which the Board Incentive Plan Trust owns (57 thousand shares) and Advantest shares which the Employee Stock Ownership Plan Trust owns (214 thousand shares).

  3. Percentage of Ownership is rounded down to the second decimal place.

#### Breakdown of Shareholders



#### **Share Prices and Volume**



#### On the Publication of Advantest's Integrated Annual Report 2020



#### Yasuo Mihashi

Managing Executive Officer, Executive Vice President, Corporate Planning & Stakeholder Relations Group

Since we published our first integrated annual report in October 2019, we have received feedback from a wide range of stakeholders. In addition, the process of producing the integrated report also pointed up areas for improvement. Based on these, we have made some revisions to the Integrated Annual Report 2020.

First, we thoroughly reviewed our treatment of materiality, examined management issues and strengthened our responses, and clarified our engagement with important topical issues such as climate change, as well as the measures we are taking on each item and the departments responsible for them. Key strategies and themes have been defined for each materiality item, based on the "six commitments" set forth in our mid- to long-term management policy.

In addition, regarding the Sustainability Report that Advantest published until last year, the details of our past achievements and activities have been newly summarized in a "Sustainability Data Book," and our discussion of future policies and measures related to sustainability has been incorporated into the Integrated Annual Report. As a result, the Integrated Annual Report has become a "one-stop handbook solution" for stakeholders to understand our corporate value, including non-financial information.

Social and economic uncertainty is increasing due to the COVID-19 pandemic and friction between the United States and China, but our purpose in issuing an integrated report to tell our value creation story remains unchanged. We will continue to dialogue with stakeholders and strive for ever clearer and more proactive information disclosure.

#### Advantest, a Preferred Sustainability Investment

#### External Evaluation (2019-2020)

- Selected for the FTSE4Good Index Series, a series of benchmark and tradable indexes for ESG (Environmental, Social and Gover-
- Selected for the FTSE Blossom Japan Index, which measures the performance of Japanese companies that demonstrate strong Environmental, Social and Governance (ESG) practices
- Selected as a constituent stock of the SNAM Sustainability Index, which combines ESG value and stock valuation
- Selected for the MSCI Japan Equity Women's Empowerment Index (WIN) and MSCI Japan Equity Women's Empowerment Index (WIN)
- Ranked first in VLSIresearch's annual customer satisfaction survey, after ranking in the "10 BEST" for 32 consecutive years
- Received Environmental Human Resources Development Corporate Awards "Encouragement Award"













#### Publication Policy and Request for Feedback

Advantest's Integrated Annual Report 2020 includes comprehensive information on our ESG management, in addition to financial information such as business performance, sales activities, and our mid-term management plan. The first report was published in 2019, making the 2020 edition our second integrated annual report. We would deeply appreciate comments and feedback to help us make the 2021 edition even better.

Contact

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https://www.advantest.com/ja/contact