

# Summary

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# CEO Message



Representative Director, President and CEO  
**Yoshiaki Yoshida**

## Advantest's Value

Advantest provides products and solutions based on electronic measurement technology. At the time of our founding in 1954, the company focused on measurement instruments used in electronic and communications equipment R&D and quality assurance. We then shifted our focus to semiconductor test equipment. Our business domains have changed, but our role remains the same: We measure and test the devices developed and produced by our customers to ensure that they operate according to specification. Our purpose & mission of “enabling leading-edge technologies” expresses our commitment to supporting customer innovation with state-of-the-art measurement technology, thereby contributing to the common good.

The semiconductor test equipment market used to be an extremely competitive environment divided among numerous suppliers. Nevertheless, Advantest has maintained market leadership since the 1980s, thanks to our aggressive and continuous investment in R&D, our strong customer base, our broad product portfolio tailored to diverse customer needs, and our global support capabilities. Our close relationships with advanced customers who are also technologies and business leaders help us to stay ahead of the curve, continuously developing next-generation test technology. Today, we hold a dominant market position with a substantial technology moat that no other company can match.

In recent years, semiconductor technology has increasingly proven its power to help solve various social and environmental issues. Semiconductors have been indispensable to the trends of remote work and distance learning and to the rise of EVs and self-driving cars. As the infrastructure enabling the analysis of big data they help to improve the accuracy of

weather forecasts and traffic congestion predictions. These trends require semiconductors to have higher performance and reliability. In this context, semiconductor test that “enables leading-edge technologies,” plays an important role, and brings a significant number of new opportunities for Advantest to demonstrate and grow its corporate value.

[P.23 The Value Creation Process](#)

## Our Road to Explosive Growth

In fiscal 2020, Advantest's sales exceeded ¥300 billion for the first time, and in fiscal 2021 they topped ¥400 billion. We expect sales to exceed ¥550 billion in fiscal 2022. Operating income reached the ¥100 billion level for the first time in fiscal 2021, and is expected to reach approximately ¥170 billion in fiscal 2022, with an operating income margin of over 30%. Ten years ago, in fiscal 2012, sales were just ¥132.9 billion, and operating income was only ¥80 million. Our company has grown by an order of magnitude in just one decade.

The major reason why we have been able to make such a big leap forward have been strategic positioning in a growing market. Going back to 2010, our main business was memory semiconductor test, a market that had shrunk significantly due to factors such as falling chip prices, consolidation among memory manufacturers, and lower investment in new testers due to streamlining of the test process. However, in 2011, we acquired the US company Verigy with the aim of capturing the SoC semiconductor tester market, which is three to four times as large as the memory tester market. In contrast to memory semiconductors, where the same company generally handles everything from design to manufacturing, SoC semiconductor production is increasingly spread across separate companies that handle design, wafer

	2017 Results	2018~2020 Results (average values for MTP1 period)	2021 Results (1st fiscal year of MTP2)
Overall Tester Market* (Approx.)	\$3.0B	\$3.8B	\$5.6B
SoC Tester Market (Approx.)	\$2.2B	\$2.8B	\$4.3B
Memory Tester Market (Approx.)	\$0.8B	\$1.0B	\$1.3B
Advantest's Sales (fiscal year)	¥207.2B	¥290.4B	¥416.9B
Advantest's Overall Tester Market Share*	36%	50%	47%
SoC Tester Market Share	30%	47%	45%
Memory Tester Market Share	57%	56%	51%

\*Source: Advantest

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manufacturing, assembly, and chip packaging and test. To establish a strong presence in the SoC tester business, we needed an understanding of the complicated global supply chain and corresponding detailed and flexible support capabilities. After the acquisition of Verigy, we focused on developing our test business in this globally distributed SoC value chain. We steadily expanded our customer base by leveraging our test platforms for high-performance logic semiconductors such as APUs and GPUs.

I was appointed president of the company in 2017, and in April 2018, we announced a 10-year mid/long-term management policy (our Grand Design) and an initial 3-year mid-term management plan (MTP1). At the time of that announcement, I emphasized that the semiconductor tester market had changed and would continue to grow over the medium to long term, despite inevitable ups and downs. I did not know at the time how fast the semiconductor market and the related tester market was going to grow. Its expansion has outstripped our expectations, but we seized this opportunity to dramatically expand our business. I believe the biggest reason we were able to do this is that our seeds planted with efforts in the SoC tester market over several years had borne fruit, and we had already significantly increased our share of the market.

In the four years since 2018, we have actively utilized M&A to expand our business in response to the ever-changing and growing market. In fiscal 2018, we acquired the system level test division of the US company Astronics. As semiconductors become more complex and ensuring reliability becomes harder, demand for system-level tests continues to grow. This acquisition began to contribute to our business performance immediately. Similarly, semiconductor test is becoming more

complex, requiring higher performance from tester peripherals. In fiscal 2019, we acquired Essai, a leading company in high-end sockets, and in fiscal 2021, we acquired R&D Altanova, which specializes in test interface boards for high-end devices. The products handled by both of these companies are all indispensable consumable parts for semiconductor test, so the acquisition of these products has expanded and stabilized our earnings. Going forward, we will continue to consider M&A transactions that can generate synergies with our semiconductor businesses and significantly drive growth.

P.12 "Grand Design" Mid/Long-Term Management Policy

## 2nd Mid-Term Management Plan (MTP2) Revised Upward

In July 2022, we revised our second mid-term management plan (MTP2), announced in May 2021, in response to the high level of sales expected in fiscal 2022 following our strong performance in 2021. These revisions raised our three-year average sales target for fiscal 2021 through fiscal 2023. Our original target was ¥350 billion-¥380 billion. It is now ¥480 billion-¥520 billion.

Regarding our current situation, the global economic slowdown is becoming more pronounced due to global inflation, tighter monetary policies in major countries, economic recession in China, the COVID-19 pandemics, and geopolitical risks. It seems inevitable that the semiconductor market and the semiconductor tester market will undergo a temporary adjustment. However, customers are still strongly motivated to invest in advanced semiconductors such as HPC (High Performance Computing) devices, and the shortage of semiconductors for automobiles and industrial equipment has not yet been resolved. Despite concerns about a decline in consumer semiconductors such as devices for mobile phones, personal computers, and game consoles, Advantest has revised its sales target for fiscal 2023 to around a range of -15% to 10% above fiscal 2022, on the premise that global economic fluctuations will stay within the bounds of the normal business cycle.

In addition to raising our sales targets for MTP2, we have increased our investment budget for R&D and production equipment from our initial plan of ¥40 billion to ¥70 billion,



### 5 Strategies

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

## CEO Message

to respond to the mid/long-term technological evolution of semiconductors and expand our production capacity. At the same time, the five core strategies set forth in our Grand Design remain unchanged. In August 2022, we acquired CREA, a power semiconductor test system company based in Italy to strengthen our core business solution portfolio. Demand for power semiconductor test is expected to grow significantly amidst wider adoption of EVs and needs for lower power consumption in data centers. We believe that synergies between CREA's excellent solutions and our extensive customer base and technical team will enable us to capture the growth of the power semiconductor tester market in the future.

We are also taking on the challenge of developing a test business that utilizes the cloud, software, and data analytics. As semiconductors become more sophisticated in the future, design, process development, and mass production test processes will become even more complex. A platform that collects and analyzes vast amounts of data from testers and manufacturing processes can bring significant new value to customers. Based on this perspective, we have launched a cloud service called "Advantest Cloud Solutions," a standard and open infrastructure that leverages both cloud and edge computing, and are moving toward commercialization of such services with the participation of advanced semiconductor companies and partner companies that develop and provide solutions.

▶ P.14 Second Mid-Term Management Plan (MTP2)

## Mid/Long-Term Growth & the Pursuit of Operational Excellence

Although the semiconductor market may temporarily enter an adjustment phase, I believe that it will grow steadily over the medium to long term. The Metaverse is one example of a series of new applications that will further drive the growth of the semiconductor industry. In addition, semiconductors have come to play an increasing essential role in the infrastructure that supports our lives, meaning that higher

functionality and reliability are required more than ever before. Against the backdrop of these needs, semiconductor suppliers continue to develop technologies that enables higher speeds, higher densities, and better power efficiencies. With technological breakthroughs such as EUV exposure and 3D packaging, this trend is expected to continue for some time. All of this is accompanied constant advances in the sophistication of semiconductor test, a powerful driving force for the growth of the test business.

To cite some numbers, SEMI, an international industry association for semiconductor manufacturing equipment and materials suppliers, predicts that the semiconductor market in 2030 will reach \$1 trillion, roughly double the 2021 level (as of July 2022). If the semiconductor tester market grows at the same rate as the semiconductor market, and we maintain our market share, a semiconductor market size of \$1 trillion means about \$7 billion in business for Advantest. In the past, the semiconductor tester market was greatly influenced by trends in personal computers and smartphones, but now that final demand for semiconductors has spread to various other products, we can expect not only an increase in the market's scale but also a reduction of the market's volatility.

▶ P.10 Megatrends and Our Market

On the other hand, I am keenly aware that if we expand our business significantly in the medium to long term, our existing business processes will not be able to support our growth. Say sales double; if equipment and personnel costs also double while business processes remain unchanged, the benefits obtained from growth will be limited.

For this reason, the second of our MTP2 strategies is the pursuit of greater operational excellence. Our priority is not to reduce costs but rather to refine systems that can continue to provide valuable products to customers in a timely manner, even if the scope of our business expands. For example, the CxO system introduced in 2021 is a mechanism for delegating authority to executive officers so as to expedite management decisions. In the globally distributed semiconductor business, this system aims to leverage the power of CxOs in each region who are highly familiar with their respective fields,

### CxO Roles

CEO (Chief Executive Officer)	Yoshiaki Yoshida
CPO (Chief Production Officer)	Soichi Tsukakoshi
CFO (Chief Financial Officer) CCO (Chief Compliance Officer)	Atsushi Fujita
CTO (Chief Technology Officer)	Koichi Tsukui
CSO (Chief Strategy Officer)	Douglas Lefever
CHO (Chief Human Capital Officer)	Keith Hardwick
CCRO (Chief Customer Relations Officer)	Kimiya Sakamoto
CDO (Chief Digital Officer) CIO (Chief Information Technology Officer)	Richard Junger

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rather than making every decision at headquarters in Japan. In addition, our promotion of DX (Digital Transformation) is not just a matter of cutting labor costs. It is also a policy reviewing and optimize all process, ranging from development to manufacturing, sales, and customer support. DX is also an effective tool for integrating the internal processes of companies that have joined our group through M&A.

### Further Enhancement of ESG Initiatives

The fifth strategy of our Grand Design is “Further Enhancement of ESG Initiatives.” I believe that an ESG perspective leads one to consider the value of a company’s existence. Companies all aim to grow while interacting with various stakeholders through the businesses in which they excel. However, if a company’s business rests on the burdens and sacrifices of some stakeholders and the global environment, growth cannot be long-lasting. A sustainable global environment and society is the prerequisite for a sustainable business. I believe our ESG initiatives in the areas of development of products with reduced environmental impact, fair trade, and transparent governance will help our stakeholders, including customers, suppliers, and shareholders, to recognize our value, leading to sustainable growth.

In last year’s integrated report, we noted that one of our ESG issues was obtaining individual employee buy-in. One year later, I am proud to say that we have launched a task force on global warming and human rights issues based on our ESG Action Plan. I feel that we are gradually approaching a situation in which employees share a well-rounded ESG perspective, with business divisions taking the lead in making proposals regarding the environmental impact of products. A active participation by women at Advantest is also steadily increasing, and the ratio of women in management positions, which is one of our KPIs, is increasing (8.3% in fiscal 2020 to increase 9.6% in fiscal 2021). Regarding governance, last year we introduced an executive compensation system that takes into account ESG evaluation scores as one of the KPIs. By continuing these activities, we hope to link the promotion of ESG to the improvement of corporate value.

▶ P.39 Further Enhancement of ESG Initiatives

### Corporate Culture & Our INTEGRITY Core Values

Whether we are talking about the pursuit of operational excellence or the enhancement of ESG initiatives, it is individual employees who actually take action. Although our company was born in Japan, we now provide products and services to customers in the complex, highly networked semiconductor value chain around the world. Advantest Group employees are also internationally diverse. Development, production,



and support are distributed all over the world, and a ratio of Japanese employees is about 40% of our total headcount. In order for our employees around the world to take pride in our business and achieve maximum results as an organization, it is essential to foster an attractive corporate culture at each and every Group company.

After announcing our Grand Design, we established our “INTEGRITY” Core Values as a mindset for all employees around the world to share, to help them work together to serve our colleagues, customers, and the common good. Each letter of INTEGRITY stands for a Core Value. These values are positioned as Group-wide guidelines for individuals to rely on in carrying out their duties and make decisions.

▶ P.21 The Advantest Way

In order to build a corporate culture suitable for Advantest, we started by holding INTEGRITY workshops for all employees, followed by “Leading with INTEGRITY” leadership training workshops for all managers, which help to embody INTEGRITY in each department. We have also appointed INTEGRITY Ambassadors as role models, and hold activities to further inculcate our Core Values at each location.

Once an organization is created, it is resistant to change, but in fact the business environment changes from moment to moment. Employees who are members of an organization sometimes need to think and act in the big picture beyond their own organization. In this context, we cannot fully support the global semiconductor value chain unless we identify the essence of our business, communicate based on trust, and demonstrate teamwork. Over the past few years, despite COVID-19 and other difficulties, Advantest has been able to achieve strong results as a result of the efforts of all Group employees who acted with a correct understanding of our INTEGRITY Core Values. I am prouder of them than I can say in word.

# Megatrends and Our Market

The accelerating digitization of society is spurring growth and innovation in the semiconductor industry to new heights. Faster semiconductor evolution has caused a major shift in the role of semiconductor test, leading to a growth in the test market.

## ▶ The Accelerating Digitization of Society & the Data Explosion

Semiconductors are now embedded in every part of our lives. They are indispensable components not only of personal computers and smartphones, but also domestic appliances, automobiles, and industrial equipment. What's more, we now live in a world where everything is connected to the internet. Day by day, our world and our daily lives are getting "smarter."

As the number of networked devices connected to the network increases, the amount of data in the world is expected to increase every year. Information about our locations, our viewing and consumption habits, and more is accumulated as "big data" and used for new services and problem solving. In addition, M2M (Machine to Machine) technologies such as autonomous driving and remote facility management systems, which exchange information without human intervention, support our comfort and safety, and are expected to turbocharge the "data explosion."

The ongoing digitization of society and increase in data volumes have been further accelerated, shaping trends that will continue into the future. As we progress along the road to a completely digitized world, the demand for semiconductors as infrastructure will continue to spread to every corner of the globe, and the number of semiconductors on the market will increase dramatically.

## ▶ Data Centers: A Key Semiconductor Demand Driver

The flood of data generated by smartphones and automobiles is sent to data centers for processing and storage by the servers and networking equipment at each facility. It is no exaggeration to say that it is thanks to data centers that we can store our important data and enjoy all the multitudinous conveniences of the internet. And since data volumes will continue to grow exponentially in the future, investment in data centers is expected to go on expanding.

In data centers, semiconductors are used for all the functions that control data transmission, processing, and storage.

Various semiconductor device types are in demand, and sophisticated functions are needed to process large amounts of data at high speed. Demand for semiconductors used in data centers is growing robustly due to increasing use of cloud services and other factors, and they are seen as a key driver of semiconductor demand going forward.

## ▶ Semiconductors Contribute to Global Sustainability

Semiconductors are becoming smaller and more sophisticated as the technology evolves, achieving energy savings for the semiconductors themselves as well as the end products in which they are used. For example, although the processing power of data centers and the volumes of data they handle have increased dramatically in the last few years, thanks to significant semiconductor performance gains, growth of their energy consumption has been restrained. In this way, semiconductors contribute significantly to reducing the environmental burden of data centers, supporting both the evolution of DX and the sustainability of our planet.

The COVID-19 pandemic has significantly changed the way people communicate. Many things we used to do in real life are increasingly moving online. Semiconductors are helping to make us more efficient, and are supporting Net Zero, by enabling people to connect online with others all over the world without having to travel by car or airplane.

Power semiconductors also play an indispensable role in energy saving by efficiently controlling electric power. They are widely used in domestic appliances, electric vehicles (EVs), data centers, and other applications. Improving the performance of power semiconductors also contributes significantly to CO<sub>2</sub> emissions reduction.

## ▶ Semiconductor Evolution Accelerates Test Demand

The test process is the first time that semiconductors "go live," by having electricity passed through them, after the long and complex manufacturing process. Only those judged to be non-defective are shipped and installed in final products.

Megatrends and Our Market

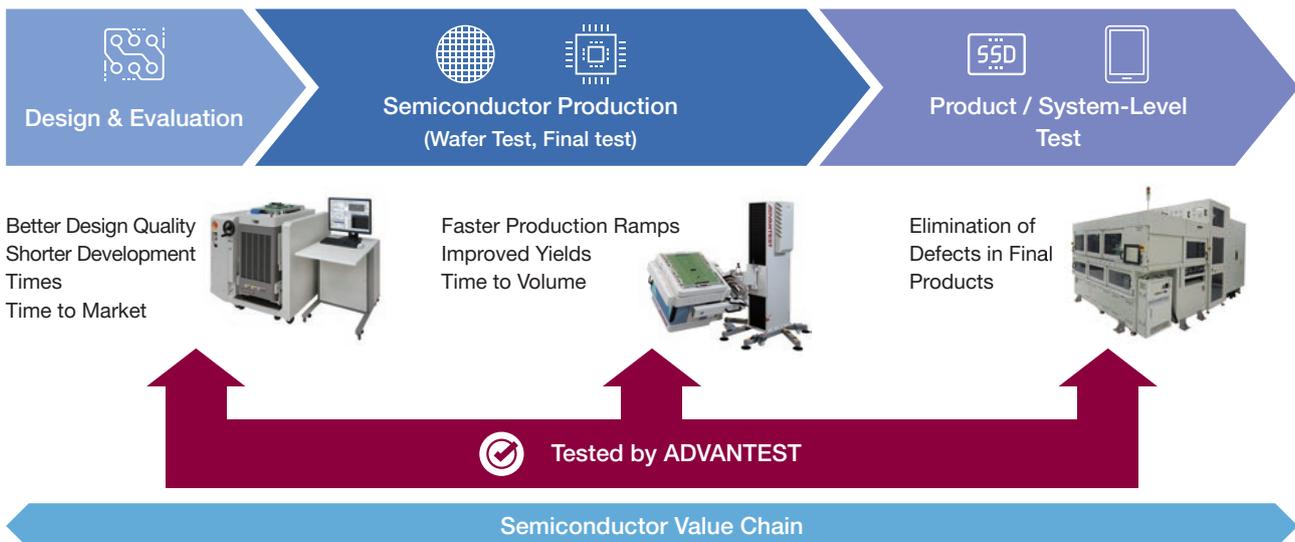
It is thanks to semiconductor test that the home appliances and smartphones we use every day work properly, and we can drive our cars with peace of mind.

The markets for cutting-edge semiconductors such as processors for smartphones and HPC devices used in servers, etc., are fiercely competitive due to their sheer scale and the high potential for growth. To prevail in this environment, the companies that make these semiconductors - our customers - must develop products quickly, launch mass production promptly, and secure markets for their products. However, ensuring the design quality and yield of these advanced semiconductors is far from easy. Our test solutions play a major role in helping customers bring them to market successfully.

When customers are designing advanced semiconductors, they need new, advanced test systems for verification and quality improvement. By introducing more test systems at the design stage, it is possible to shorten the development period and thus the time to market, and to introduce new products ahead of other companies. Then, when ramping up production lines, many new test systems are installed to quickly identify defects, raising yields quickly and shortening time to volume, until the target production volume is reached. When mass production finally settles into a groove, it is time start development on the next new semiconductor device, and many new test systems are installed for design verification and mass production ramps.

Moreover, as a result of recent advances in the complexity and density of advanced semiconductors, defects sometimes occur when devices are installed in final products, even though the devices worked well alone. To eliminate such defects in advance, customers test the devices in the same environment where they will ultimately be used. This is called system-level test. Again, our system-level test systems help our customers solve their challenges. The highly competitive semiconductor market environment is driving the early development and introduction of new semiconductors, creating greater test demand. Trends such as the evolution of semiconductor performance due to the digital transformation, increasing needs for reliability, and the diversification of applications all bring new technical challenges to design and mass production processes, further accelerating the expansion of test demand. There was a time when test was just a cost that chipmakers had to bear, and tester market growth lagged the growth of the semiconductor market. However, today, semiconductor test is an investment that helps chipmakers beat their competitors by shortening time to market and time to volume, and contributes to cost control over the entire product life cycle. The increasingly vital role of semiconductor test ensures that the semiconductor test market will follow a growth trajectory in step with the technological evolution of semiconductors.

Competition in the Semiconductor Market Fuels Investment in Test



# “Grand Design” Mid/Long-Term Management Policy

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

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

### Purpose & Mission

**Enabling Leading-Edge  
Technologies**

### Vision

**Adding Customer Value in an Evolving  
Semiconductor Value Chain**

### Background to Formulation of the Grand Design

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

In addition, as a result of Advantest’s acquisitions of companies outside Japan, and the expansion of our global business base in line with the growth of the global semiconductor market, our percentage of overseas sales has consistently exceeded 90% since the mid-2010s, and the company had already transformed itself into a diverse international organization with a diverse talent pool. Amidst these internal and external structural changes, we established our Grand Design and Vision as common management goals for employees

around the world, to help them work together to create customer value and improve corporate value.

In FY2021, three years after the formulation of our Grand Design, we updated it to reflect progress made to date and changes in the company’s external environment. The entire company is working as one to achieve our updated targets.

### Early Achievement of Long-Term Management Metrics

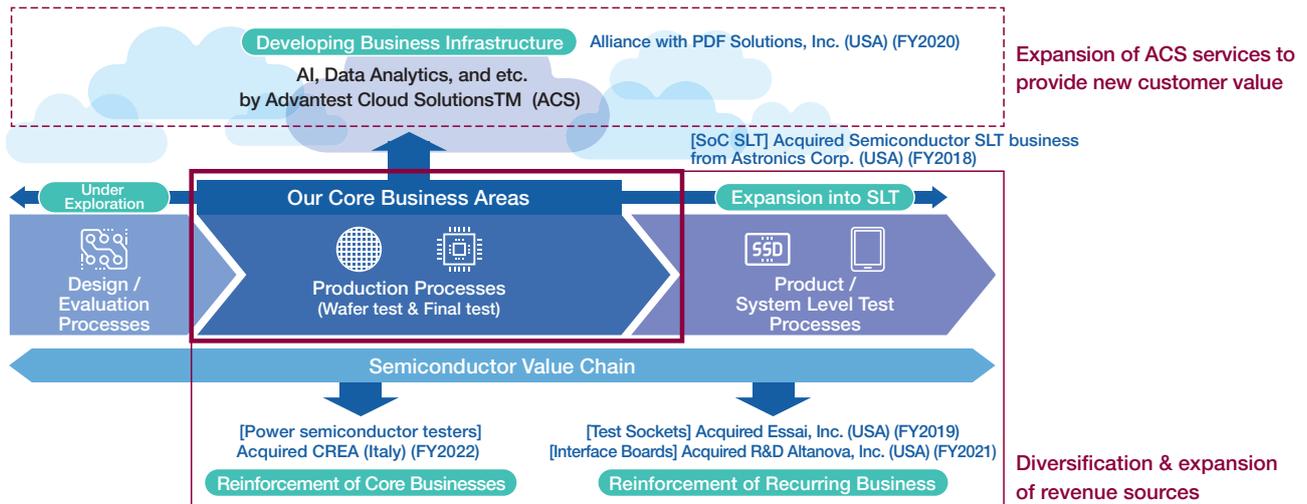
Our Grand Design initially set a long-term target of ¥300-400 billion in net annual sales. In 2021, we revised this target to “early achievement of ¥400 billion in sales.” However, due to factors such as the continued strong expansion of the semiconductor test equipment market, we were able to achieve this goal in FY2021, rather than in FY2027 as originally foreseen.

Amid the ongoing changes in the market and society, such as the mid/long-term expansion of semiconductor demand, which were foreseen under our Grand Design, we will leverage the early achievement of our sales target to promote various growth strategies, aiming to realize our vision and further improve corporate value.

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

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

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



The chart above shows the progress, as of the first half of FY2022, of our efforts to reinforce and grow our business domains, starting from our core businesses, with the aim of realizing our mid/long-term vision.

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

Supported by broad-based demand drivers such as the ongoing digital transformation and carbon-neutral policies, the semiconductor market is expected to grow over the mid/long-term despite short-term demand fluctuations. In addition, increases in semiconductor complexity and integration, which have driven the expansion of the semiconductor tester market in recent years, are expected to actively advance in the future. Against this backdrop, customers hold ever higher expectations for Advantest to deliver total test solutions that cover the entire semiconductor value chain. Based on these

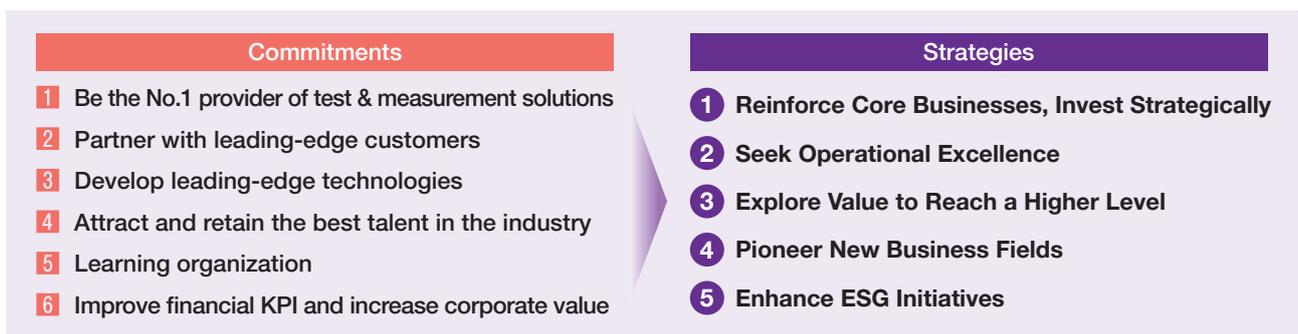
mid/long-term industry trends, we will continue to reinforce our core businesses and expand our business domains.

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

**Commitments and Strategies**

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

We have also positioned these five long-term strategies at the core of our successive three-year mid-term management plans. Our first medium-term management plan (FY2018-2020) was successfully completed with financial results and market share growth that exceeded initial expectations. Currently, we are working on executing our second mid-term management plan (FY2021-2023), which started in FY2021, aiming to make further strides towards our Grand Design goals.



# Second Mid-Term Management Plan (MTP2)

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

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

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

aggressively promoting growth measures that will contribute to business expansion in our core business and related markets from a mid/long-term perspective, aiming for sustainable growth whilst strengthening our business foundations.

## MTP2 Growth Strategy & Progress During First Year

The core of MTP2 is the promotion of the 5 Strategies set out in our Grand Design. Throughout fiscal 2021, securing parts to respond to expanding customer demands was our highest priority. In addition, due to the prolonged COVID-19 pandemic, business remained restricted by regulations on the movement of people and logistical difficulties. However, even in these circumstances, we were able to make progress during the year, as a united global group, on the mid/long-term initiatives described below.

### Strategies

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

### Key 1st-Year Achievements

- In order to further enhance our mid/long-term presence in the tester market, we reinforced the lineup of modules for our V93000 EXA Scale SoC tester, and introduced two new memory testers.
- We executed R&D based on a long-term roadmap aligned with semiconductor technology trends. At the same time, by hiring more sales / support personnel, we expanded our tailored solutions for diverse customers and applications.
- To expand our system level test business, we cultivated HPC and smartphone-related demand and focused on sales to the automotive market.
- We acquired the US company R&D Altanova, strengthening our test interface business.
- We expanded our Advantest Cloud Solutions™ (ACS) services, and implemented hiring with a view to future business expansion.
- The TechInsights Customer Satisfaction Survey named Advantest the SPE industry leader for the third consecutive year.
- We reviewed our global executive system to strengthen earning power, and introduced a CxO system.
- We formulated an ESG Action Plan to promote ESG understanding company-wide.

## Future Focus of MTP2

Looking ahead to the future of Advantest's market environment, demand for semiconductor test equipment is expected to grow in the mid/long-term due to further expansion of semiconductor demand, the increasing sophistication of semiconductors, increasing needs for reliability, and the increasing importance of energy-saving technologies. These facts give rise to our recognition that we will enjoy various mid/long-term growth opportunities. We will promote measures to solidify our foundation for growth in order to make even greater strides forward in the future.

## Company-Wide Policies

Amid expectations for long-term growth in the semiconductor market, we will strengthen our company-wide growth foundations such as supply chain management, DX/AI investment, capital investment, and investment in human resources with the goal of securing our growth potential and reinforcing our business. In addition, by strengthening our partnerships with leading customers in the semiconductor value chain, we will enhance our ability to respond quickly to technological evolution.

### Semiconductor & Component Test System Segment

For SoC testers, we see major business opportunities due to technological advances in semiconductors, such as advances in miniaturization, the adoption of advanced packages, and growth in 5G millimeter-wave devices. In addition, many other sectors are poised for growth, such as power semiconductors and silicon photonics devices. We will promote design-in activities for leading companies in each sector and refine processes that ensures we can capture future demand opportunities.

In memory testers, we will continue to leverage our position as the only tester vendor that can provide solutions to all players and for all test processes, aiming to secure a market share of 50% or more.

### Mechatronics System Segment

Utilizing technological resources cultivated over many years, such as high-precision temperature control and signal transmission technologies, we will promote sales of test cells that lead to improved test quality.

### Services, Support, and Others Segment

As the number of applications requiring SLT continues to increase amidst higher quality assurance requirements, we will work to expand our SLT customer base and the types of products that we support. In the area of data analytics, we will work with customers to develop innovative solutions that integrate hardware and software through ACS (Advantest Cloud Solutions).

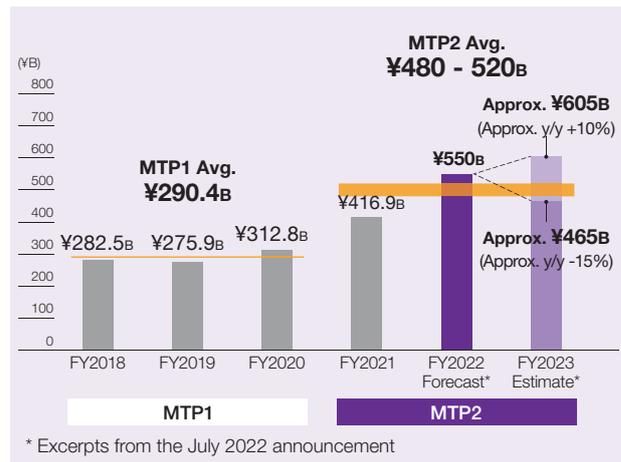
#### Key Measures for Success

- Capture the expanding demand for test equipment for SoC semiconductors, including HPC (high performance computing) devices, a sector which is expected to grow robustly over the mid/long-term, by leveraging the strengths of the new V93000 EXA Scale.
- Establish a leading position in test for millimeter-wave related devices, a sector that will commence full-scale growth during the period of MTP2.
- Capture demand in emerging markets such as power semiconductors and silicon photonics devices.
- Maintain a strong business foundation for DRAM and non-volatile memory device test.
- Expand sales opportunities by providing test cell environments that deliver better test quality.
- As demand for system level testing (SLT) increases, win more customers in mobile, HPC, automotive, memory / storage, etc. In addition, actively promote expansion of recurring business for consumables.
- Invest to refine our business model in the data analytics field and further develop infrastructure for this business.

## MTP2 Sales Progress & Outlook

In FY2021, the first year of MTP2, we achieved a record-high performance amidst strong growth in the semiconductor market. In FY2022, demand for semiconductor test equipment will continue to be strong, and we expect to set new performance records once again. As of July 2022, we forecast net sales for FY2022 of ¥550 billion, an increase of 31.9% year on year.

With regard to the outlook for FY2023, we consider it necessary to anticipate some degree of softening demand for final products and weaker growth in the semiconductor market as recession risks affect the global economy. On the other hand, the diversification of semiconductor applications in recent years has created a higher support level in the semiconductor test equipment market. Additionally, the ongoing trend of greater difficulties around testing high-end devices, the strong motivation of major chip makers to invest in advanced technologies, the future sales outlook for Advantest's products, and foreign exchange rate trends all contribute to the possibility that our sales will not decline significantly during the MTP2 period. Based on the assumption that the current slowdown in the global economy will remain within moderate bounds, we expect FY2023 sales growth to be in the range of approximately -15% to +10% year-on-year, as of July 2022.



## MTP2 Update (July 2022)

The management metrics that are emphasized in MTP2 are sales, operating margin, net income, return on equity attributable to owners of the parent (ROE), and earnings per share (EPS). In order to evaluate the progress of the plan from a mid/long-term perspective, Advantest uses three-year averages to minimize the impact of single-year performance fluctuations.

As mentioned above, based on our FY2021 sales performance and future outlook, it now appears that the company is more likely than before to exceed each of the numerical targets set forth at the time MTP2 was formulated. Thus, we have revised MTP2 as follows.

## Trends in Advantest's mid-term management plan metrics

Grand Design [FY2018~FY2027]				
First Mid-Term Management Plan (MTP1, FY2018~FY2020)		Second Mid-Term Management Plan (MTP2, FY2021~FY2023)		
MTP1 Targets Avg. of FY2018-20	MTP1 Results Avg. of FY2018-20	Previous MTP2 Targets* <sup>2</sup> (announced May 2021) Avg. of FY2021-23	FY2021 Results	MTP2 Targets* <sup>3</sup> (revised July 2022) Avg. of FY2021-23
Sales	¥250B	¥350-380B	416.9B	¥480-520B
Operating Margin	17%	23-25%	27.5%	27-30%
Net Income	—	¥62-70B	87.3B	¥98-120B
ROE	18%	20% or more	30.4%	30-35%
EPS	¥170	¥320-370	¥450	¥510-630

\*1. In MTP1 period, Advantest recorded one-off profit of approximately ¥12 billion

\*2. The exchange rates used in the previous announcement were 1 USD = 105 JPY and 1 euro = 130 JPY.

\*3 The revised targets use exchange rates for FY2022 2Q-4Q and FY2023: 1 USD = 130 JPY and 1 euro = 140 JPY (Actual rates in FY2021 were 1 USD = 112 JPY and 1 euro = 130 JPY, and FY2022 1Q rates were 1USD = 124 JPY and 1euro = 134 JPY).

# Risk Management

Each of Advantest's locations around the world has diverse functions. To perform appropriate risk management within this structure, each unit of responsibility (individual divisions, business units, and six overseas locations) engages in risk management autonomously in normal times, while We also have a top-down risk response structure to be activated in the event of an emergency.

## Our Basic Risk Management Philosophy

It is essential to identify present and future risks, prepare for them, and take appropriate countermeasures so as to seize business opportunities and tackle challenges amidst the upheavals affecting our business environment, such as the data explosion, the progress of the digital revolution, and accelerating social change. By linking management strategy with risk management, we aim to comprehensively identify existing and anticipated risks. All business units, functional units, and regional units take a bird's-eye view to identify risks, meaning factors that may hinder the achievement of management strategies, and takes appropriate countermeasures according to the magnitude of the risks.

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

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

## Risk Management Structure

### 1 Organization

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

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

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

### 2 Process

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

The Internal Control Committee defines the factors (risks) that may hinder the achievement of these priority measures, and requests individual units to identify risks and report on their risk responses. In this manner, the Internal Control Committee oversees and supports the risk analyses of individual units as well as information sharing between units from a company-wide perspective. Each unit reports its risk management status to the Internal Control Committee twice a year. The Internal Control Committee then checks the risk management status of individual units and provides feedback. The Secretariat of the Internal Control Committee also supports each unit in various manners as appropriate, such as providing proposals for risk analysis and countermeasures, and providing necessary information.

Compliance-related risks are collected by the CCO, and then the CCO report them to the Board of Directors, Audit and Supervisory committee and the Executive Management Committee. Depending on the nature of the risk, risk information may be reported directly to the Board of Directors or the Executive Management Committee. The Board of Directors or the Executive Management Committee handles risks at the corporate level by making timely decisions and giving instructions to related units.

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

## Key Risks and Countermeasures

In fiscal 2021, approximately 350 risks were identified by divisions, business units, and overseas locations. Below is a list of the major ones organized by materiality.

### Our Definition of Materiality

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

#### Materiality Items

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

	Key risks	Materiality addressed	Priority measures	Executive in charge*
1	Significant demand fluctuations in the semiconductor industry	1 2	<ul style="list-style-type: none"> <li>Expansion of our peripherals business</li> <li>Outsourced production, diversification of suppliers</li> <li>Strengthen services and other businesses, including recurring businesses and new businesses</li> <li>Collect accurate information by strengthening communication with customers and overseas locations</li> </ul>	CSO Co-CSO
2	Market share losses due to failure to deliver new products in a timely manner as a result of delays in development and design, failure to achieve performance targets	1 2 3	<ul style="list-style-type: none"> <li>Strengthen relationships with leading customers, collect information</li> <li>Consider lean ways to develop our products by thorough analysis during the early phases of development and design reviews at each phase</li> <li>New product research using data analysis</li> </ul>	CTO CDO
3	Market share losses due to failure to procure parts and deliver products in a timely manner	1 2	<ul style="list-style-type: none"> <li>Establish a system that does not rely excessively on specific suppliers, such as selection of alternative parts and use of standardized products</li> <li>Constant assessment and review of suppliers</li> </ul>	CPO CDO
4	Intense competition may impact market share	1	<ul style="list-style-type: none"> <li>Understand customer needs even better</li> <li>Provide unique functions and high value-added solutions</li> </ul>	CCRO CTO
5	Consequences of significant damage to the company's or our suppliers' major facilities	1 2 5	<ul style="list-style-type: none"> <li>Refinement of BCP, obtain punctual information</li> <li>Diversification of production bases and external suppliers</li> </ul>	CFO CPO
6	Potential lack of highly specialized human resources	2 3 5	<ul style="list-style-type: none"> <li>Coordinate and replenish human resources between divisions</li> <li>Formulate a mid/long-term hiring plan, improving our working environment, increase engagement, and provide opportunities to improve skills through education and training programs</li> <li>Pursue automation and train multi-skilled engineers</li> </ul>	CHO Co-CHO
7	Impact of global economic and political trends on global business development	2	<ul style="list-style-type: none"> <li>Collect risk information promptly</li> <li>Strengthen relationships with customers and suppliers</li> <li>Establish new shipping processes and alternative supply sources to continue to make our procurement routes and production bases more flexible</li> <li>Establish basic procurement policy, encourage suppliers to understand and ensure human rights and occupational safety</li> </ul>	CFO CSO CPO Co-CSO
8	Impact on corporate value due to delays in developing new business areas	4	<ul style="list-style-type: none"> <li>Continual searching and exploration of new businesses</li> <li>Monitor ongoing projects and conduct regular reviews</li> </ul>	Co-CSO
9	Risks associated with violation of laws and company rules	5	<ul style="list-style-type: none"> <li>Promptly obtain information on revisions to laws and regulations</li> <li>Appropriately set up and monitor internal processes</li> <li>Educate and train our employees</li> </ul>	CCO
10	Impact of failure to transfer technology	5	<ul style="list-style-type: none"> <li>Formulate plans for the smooth transfer of technology, and hold study session and opinion exchange meetings</li> </ul>	CTO CHO

\*CCO: Chief Compliance Officer  
CCRO: Chief Customer Relations Officer  
CFO: Chief Financial Officer  
CHO: Chief Human Capital Officer  
CPO: Chief Production Officer

CSO: Chief Strategy Officer  
CTO: Chief Technology Officer  
CDO: Chief Digital Officer  
(Please refer to P.8 for CxO roles)

# Consolidated Financial and Non-Financial Highlights

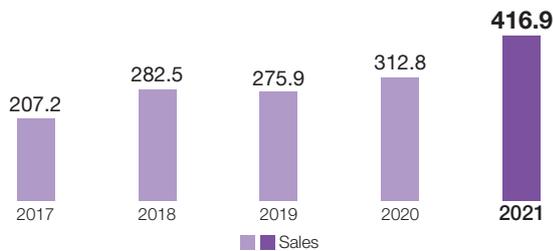
Each fiscal year starts on April 1st

## Financial Highlights

### Sales

(Billion yen)

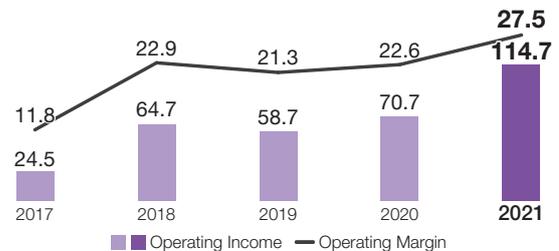
Achieved our FY2027 sales target of ¥400 billion earlier than expected



### Operating Income / Operating Margin

(Billion yen / %)

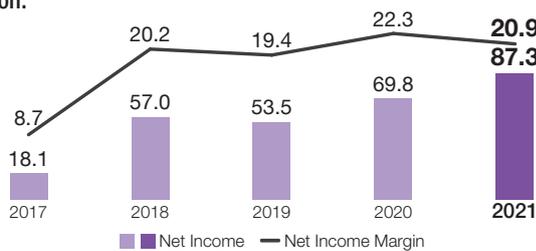
Operating income set a record for the first time since FY1997, and exceeded ¥100 billion for the first time



### Net Income / Net Income Margin

(Billion yen / %)

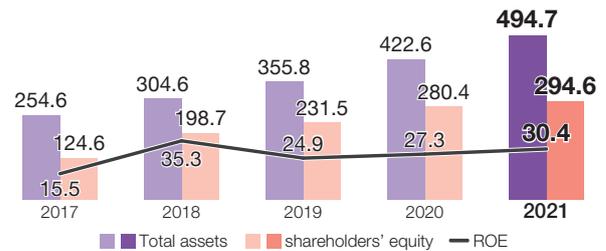
Net income reached a new record high, topping FY2020 net income, which included a one-time profit of approximately ¥10 billion.



### Total assets / shareholders' equity / ROE

(Billion yen / %)

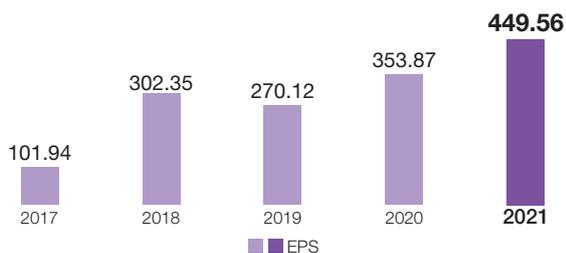
ROE exceeded 30%



### EPS

(Yen)

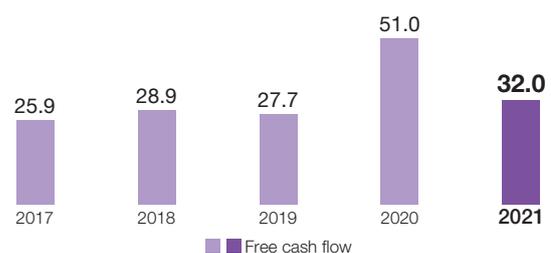
EPS increased by ¥96 year-on-year due to the purchase of treasury stock



### Free cash flow

(Billion yen)

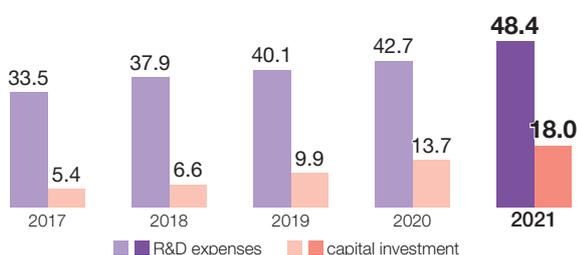
Free cash flow decreased by ¥19 billion year-on-year due to an acquisition that cost ¥29 billion



### R&D expenses / capital expenditure

(Billion yen)

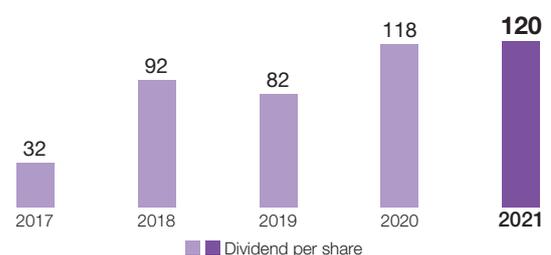
R&D expenses increased by ¥5.7 billion and capital expenditure increased by ¥4.3 billion year-on-year



### Dividend per share

(Yen)

Dividend increased by ¥2 from the previous fiscal year, when we also issued a commemorative dividend of ¥10



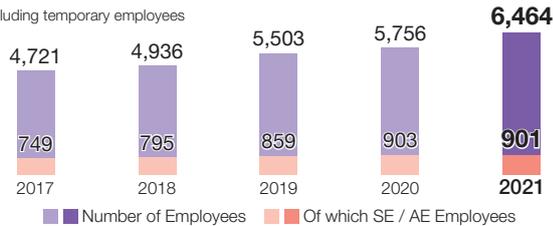
Consolidated Financial and Non-Financial Highlights

Non-financial highlights

Number of employees\* / Number of SE / AE employees  
(Number)

We are striving to recruit human resources that will support sustainable improvement of our corporate value. In particular, we are promoting measures to hire more talented engineers, a category where worldwide hiring competition is heating up, as well as to retain them and help them to improve their skills.

\* Including temporary employees



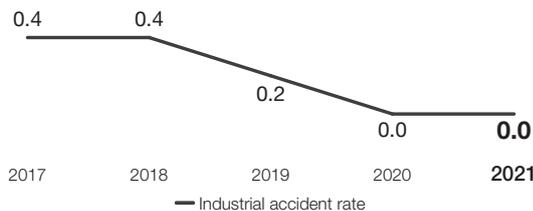
Turnover rate  
(%)

Amidst the global shortage of human resources affecting semiconductor-related industries, we are striving to create a work environment where everyone can work comfortably and expanding access to workstyles that help individuals to continue to maximize their abilities.



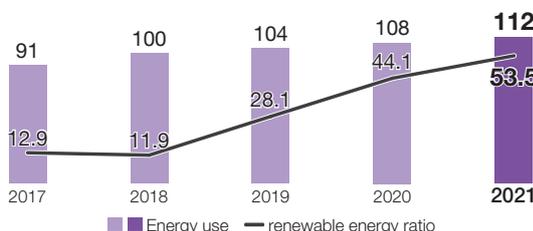
Industrial accident rate (Japan)  
(Frequency)

We are working to ensure the safety and health of our employees and raise their safety awareness in carrying out our business activities.



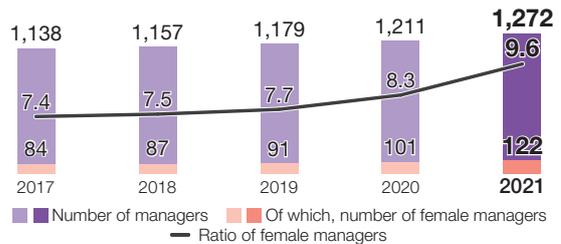
Energy usage / renewable energy ratio  
(TJ / %)

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



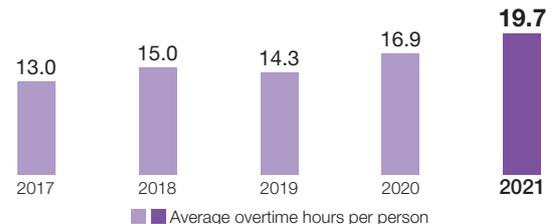
Number of managers / Ratio of female managers  
(Number / %)

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.



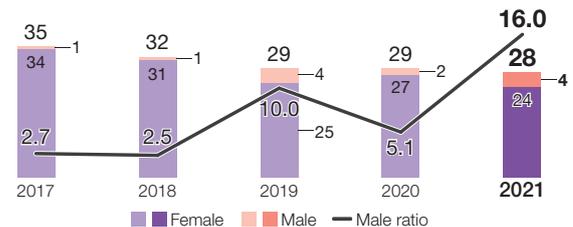
Average overtime hours per person (Japan, China, South Korea)  
(Hours / Month)

While overtime is rising due to the growth of our business, we are working to optimize working hours so that employees can best balance their jobs with their home lives and maintain their health.



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

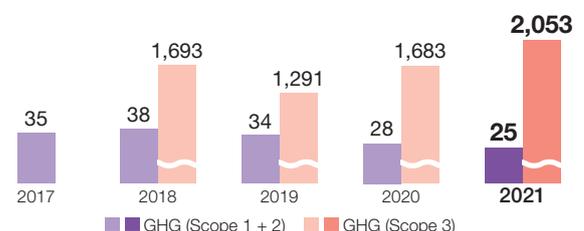
Recognizing that employees have varying responsibilities depending on their stage of life, we are striving to enhance our work-life balance support system so that employees can work flexibly in consideration of their family obligations.



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

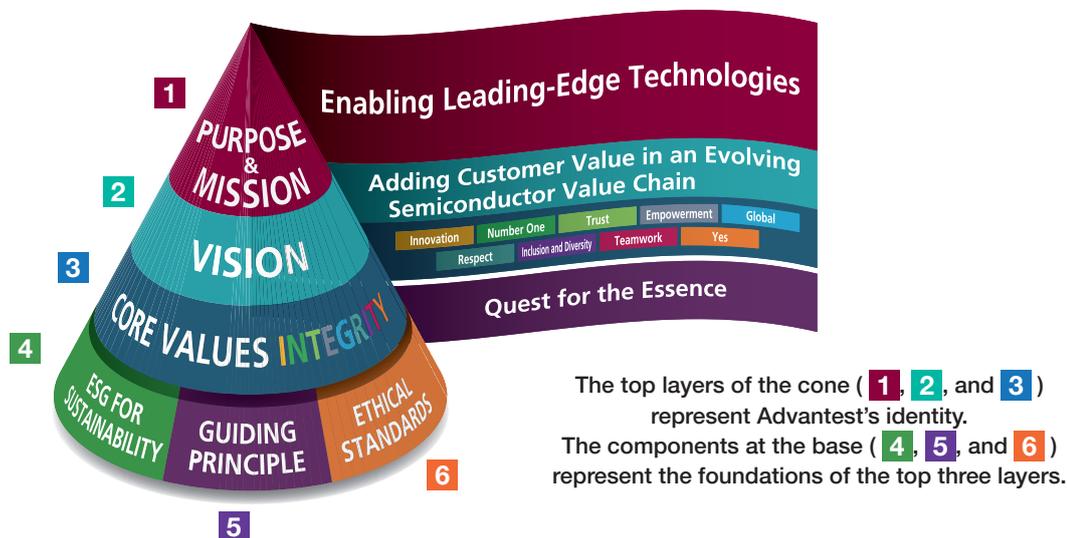
We are working to mitigate climate change by quantifying greenhouse gases indirectly emitted in our value chain and promoting greenhouse gas emission reduction activities.

\* The CO<sub>2</sub> emission factors have been revised and recalculated in the past.



# The Advantest Way

The Advantest Way is a corporate culture that optimizes performance by bringing together as a single team the approximately 6,500 members of the Advantest Group, who have various cultures, languages, customs, and values. We practice The Advantest Way in our daily work to achieve the goals of our Grand Design and 2nd mid-term management plan, and to further improve our corporate value.



- 1 Purpose & Mission: Enabling Leading-Edge Technologies**

We will continuously improve ourselves so that we can offer products and services that will satisfy our customers worldwide, and contribute to the development of our society through the development of the most advanced technologies.

Since 1990, Advantest has upheld this management philosophy as a concise expression of the company's raison d'être: contributing to global innovation through cutting-edge measurement technology.
- 2 Vision: Adding Customer Value in an Evolving Semiconductor Value Chain**

Advantest will further contribute to the semiconductor industry by enriching, expanding, and integrating our test and measurement solutions throughout the entire semiconductor value chain.

This vision was articulated in 2018 to encapsulate the concept of our Grand Design launched in that year. The vision also conveys our commitment to the growth of the semiconductor industry, which supports the digital transformation.
- 3 Core Values: INTEGRITY**

The values of INTEGRITY can serve as a common thread uniting people of diverse cultures, religions, and viewpoints, and express Advantest's core values globally. INTEGRITY was established in 2019 as a set of core values shared by all employees, which form the basis for achieving our Grand Design. INTEGRITY is an acronym for nine values we cherish:

Innovation is our Lifeblood	Respect is our Heart
Number one is our Aspiration	Inclusion and Diversity is our Commitment
Trust is our Foundation	Teamwork is our Approach
Empowerment is our Motivation	Yes is our Attitude
Global is our Reach	
- 4 ESG for Sustainability**

With the aim of contributing to global sustainability while improving corporate value over the medium to long term, we are working on seven issues related to the environment (E), society (S), and governance (G).
- 5 Guiding Principle : Quest for the Essence**

We will invariably pursue the sources of phenomena and seek their essence, so that we can find the correct solutions.
- 6 Ethical Standards**

All executives and employees consent to 17 stipulations regarding the laws, norms, and morals to be observed as individuals and businesspersons.