

**ADVANTEST**<sup>®</sup>

# Second Mid-Term Management Plan (MTP2: FY2021~FY2023)

May 24th, 2021

Advantest Corporation

Yoshiaki Yoshida

Representative Director, President & CEO



## NOTE

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### Accounting Standards

- Our results and outlook, described in this presentation, have been prepared in accordance with IFRS.

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## Agenda

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- 1 Review of Previous Mid-Term Plan (MTP1: FY2018-FY2020)**
- 2 Business Environment Survey & Grand Design Update**
- 3 New Mid-Term Plan (MTP2: FY2021-FY2023)**
- 4 Enhancement of ESG Initiatives**

- Today's agenda
  - My name is Yoshiaki Yoshida. Thank you for taking the time to join us today.
  - We disclosed the outline of our new mid-term management plan, that is, our second mid-term management plan, last Friday.
  - Today I would like to share more details of the plan, as described in this slide, and briefly discuss our medium- to long-term aims.

# Review of Previous Mid-Term Plan (MTP1: FY2018-FY2020)

## MTP1: Achieved all key management metrics

### Results significantly exceeded all MTP1 numerical key management metrics

	FY2015-17 Average	MTP1 Numerical Targets		MTP1 Results			
		Targets (FY2018-20 Average)		FY2018 Results	FY2019 Results	FY2020 Results	FY2018-20 Average
		Conservative	Base				
Sales	¥175.1B	¥230.0B	¥250.0B	¥282.5B	¥275.9B	¥312.8B	¥290.4B
Operating Margin	9%	15%	17%	22.9%	21.3%	22.6%	22.3%
ROE	12%	15%	18%	35.3%	24.9%	27.3%	29.1%
EPS	¥74	¥135	¥170	¥302	¥270	¥354	¥309

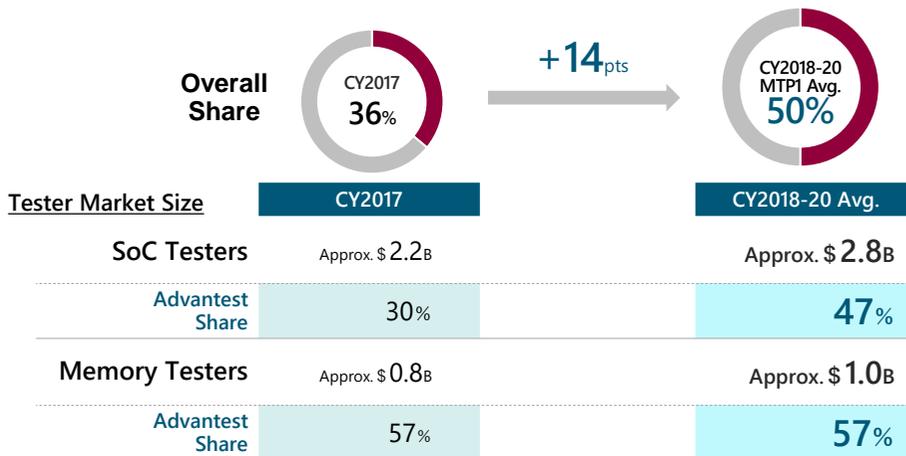
## ○ Review of Previous Mid-Term Plan (MTP1: FY2018-FY2020)

- Firstly, let's take a look back at our first mid-term management plan.
- Our "Grand Design" mid- to long-term management policy (10 years duration), which defines what we want to be and what we should do, was announced in April 2018.
- In addition, our first three-year mid-term management plan (FY2018-FY2020) (MTP1) was formulated at the same time as the Grand Design to further its goals, and we have made efforts for the past three years to achieve our MTP1 targets.
- These are the key management metrics and results of MTP1.
- We set ambitious targets compared to our results from 2015 to 2017, but our results greatly exceeded our targets across all metrics.
- These three years have seen great and unexpected changes such as the US-China trade conflict and COVID-19, but I am proud to say that Advantest has responded swiftly and surely to these changes, including by expanding production capacity and reinforcing local support capacity in a timely manner to meet vigorous demand.

Contributing Factor 1:

### Accurately calibrated efforts during an expansion phase in the tester market

Our long-term strategy to build a broad customer base and leverage our extensive product portfolio has led to significant growth in market share, while the market itself has expanded



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#### ○ Factors contributing to the achievement of MTP1 targets (1)

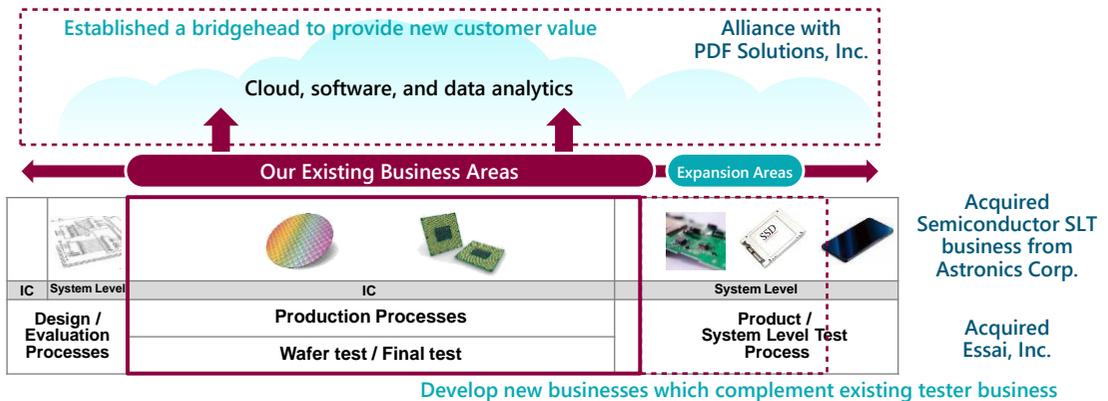
- Two main factors contributed to the achievement of our MTP1 targets.
- Firstly, as the semiconductor tester market expanded, we steadily increased our market share in the semiconductor tester business and achieved sales growth in excess of market growth.
- Shares in the tester market may fluctuate considerably on a calendar year basis, depending on the investment trends of major semiconductor manufacturers, but we were nevertheless able to increase our share by a meaningful 14 points (three-year average) during the MTP1 period.
- For the past three years, SoC testers have been buoyed by active growth in test demand for various semiconductors in various regions, mainly related to 4G / 5G smartphones.
- Under these circumstances, we were able to greatly expand our market share by expanding our customer base and enriching our range of solutions to meet diverse needs.
- In the memory sector, we were able to maintain the high market share that we have held for many years by leveraging our broad customer base and the diversity of our solutions.

Contributing Factor 2:

## Expansion of Business Domains

### SLT business rapidly contributed to performance

- We steadily expanded into adjacent business fields, in alignment with our Grand Design
- Our system level test business, boosted by M&A, grew more than expected due to advancing semiconductor complexity
- We acquired business infrastructure that will underpin the mid/long-term transformation of our business model through our alliance with PDF Solutions, Inc.



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### ○ Factors contributing to the achievement of MTP1 targets (2)

- The second factor that contributed to achieving our MTP1 targets is our efforts to expand our business domains.
- In line with our Grand Design vision, we have executed two M&As and one capital and business alliance over the past three years.
- Among these, the two SLT businesses we acquired through M&A contributed significantly to Advantest's results, thanks to the growing demand for higher-performance semiconductors.
- Under MTP1, we set a target of ¥100 billion for strategic investment. Only about half of this amount was used, but results exceeded expectations. Additionally, we utilized EMS manufacturing to respond to higher production requirements resulting from demand expansion, and thus did not need to make large capital investments. As a result, cash on hand increased.

Contributing Factor 3:  
**Non-Financial Initiatives**

**“The Advantest Way”**

**Mission**  
 Why does Advantest exist ?

**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

**Vision**  
 What do we want to be?

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

**Core Values**  
 What do we value most?

**INTEGRITY**

- “Integrity” means honesty and truthfulness
- When you have integrity, it means being open, honest and respectful at all times with all stakeholders



**Major ESG initiatives During MTP1 Period**

- Enhanced corporate governance
- Educated all employees in The Advantest Way
- Promoted better workstyles
- Started issuing Integrated Report
- Joined UN Global Compact, supported TCFD recommendations, and started disclosure in compliance with SASB

○ Factors contributing to the achievement of MTP1 targets (3)

- Please turn to page 8.
- I would also like to touch on how we have strengthened our non-financial initiatives over the last three years.
- To achieve our Grand Design, we have broadly revised the Advantest Way, which guides our business activities, to focus on fostering a corporate culture and human resources development for global operations, and have endeavored to create a system to help all employees throughout the world to work toward the same goals.
- In terms of ESG, we have increased the gender and national diversity of our board of directors, increased the national diversity of our executive officers, and promoted measures such as support for TCFD, participation in the Global Compact, and workstyle reforms. From 2019 we began issuing an Integrated Report to enhance our information disclosure.
- These efforts helped us to maintain the quality of our business globally by keeping up with the rapid expansion of product demand and enhancing our support capacity even amidst the drastic changes in our environment brought about by the response to COVID-19. We believe that they thus supported the achievement of our MTP1 targets.

# Business Environment Survey & Grand Design Update

External Environment and Socioeconomic Megatrends  
**(1) View at time of MTP1 formulation and at present**

View at the time of MTP1 announcement (Apr. 2018)



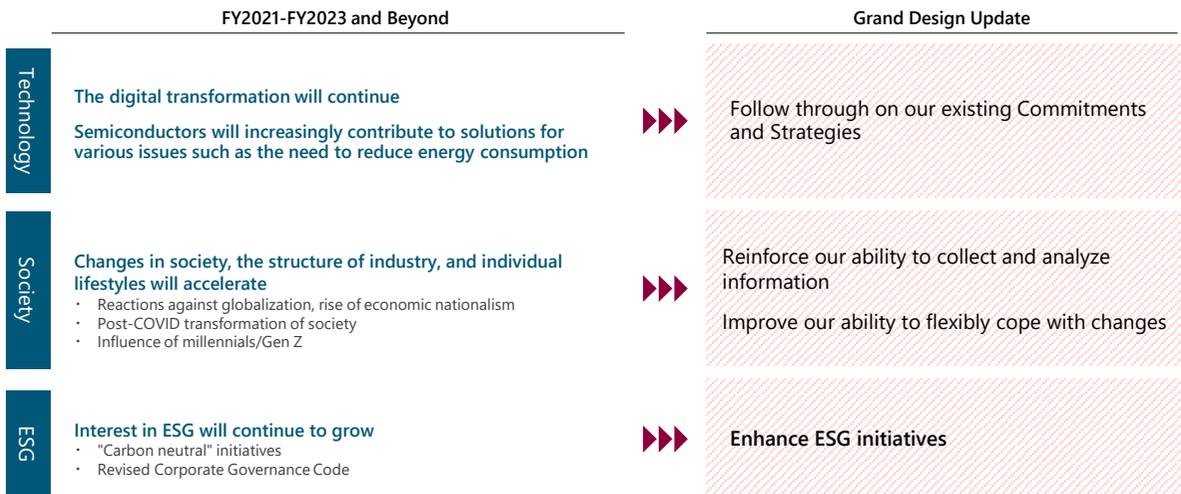
View at present (May 2021)

- Overall, these megatrends are continuing**
  - Population growth is slowing
  - Environmental and climate change are accelerating, while responses are being strengthened
- Smart, Global, Security**
  - Reactions against globalization: Geopolitical risks  
Decoupling, Economic nationalism
  - Post-COVID transformation of society: Increasing security risks
- Explosive growth in data volumes is continuing and accelerating**
- Progress and acceleration of the digital transformation, solving diverse problems using semiconductors**
- Critiques of capitalism are gaining momentum**
  - Stakeholder capitalism
  - Influence of millennials/Gen Z and their focus on environmental issues

○ External environment (1)

- I'll now move on to our external environment. Please turn to page 10.
- Three years ago, when formulating our Grand Design, we examined socioeconomic megatrends and their potential impact on our business, and considered mid- to long-term strategies based on them.
- Since then, these megatrends have developed more or less as expected overall, but major unexpected changes, such as sharpening friction between the United States and China, and the impact of the global COVID-19 response, have also occurred, causing uncertainty to increase and risks to diversify.
- We have also seen movements such as the reaction against globalism and the push for stakeholder capitalism, which call for a reexamination of values previously thought to be unquestionable.

## (2) Grand Design update



### ○ External environment (2)

- As reviewed on the previous page, the digital revolution is expected to progress further in the next 10 years in terms of technology and business, and consequently semiconductors will have larger and more diverse roles to play.
- Regarding social conditions, it is expected that changes in society, the structure of industry, and individual lifestyles will accelerate.
- Geopolitical risks and other uncertainties will increase.
- The practice of ESG will also become more important.
- Based on these predictions, we believe it is necessary to work on responsiveness to risks and opportunities, as well as enhancing our ESG initiatives, while adhering to our existing growth strategy, within the framework of our "Grand Design" mid/long-term management policy.

## Grand Design: Fidelity to Our Corporate Mission & Vision

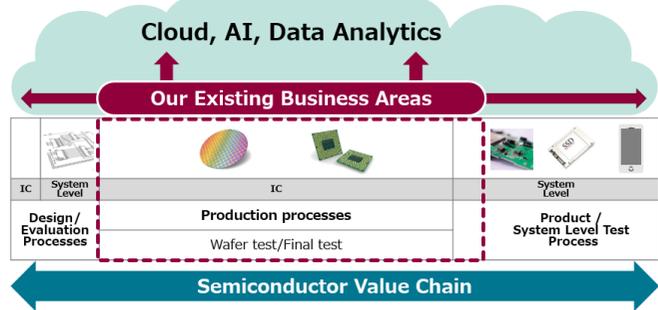
### Corporate Purpose & Mission

#### Enabling Leading-Edge Technologies

### Vision Statement

#### 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



### ○ Fidelity to our corporate mission and vision

- Our corporate purpose and mission is to “enable leading-edge technologies.”
- For the past 30 years, we have continued our business in keeping with this mission of refining advanced technologies and contributing to the development of our customers and society in general.
- Far from being dated, this mission, central to Advantest's identity, will only become more and more important in the future.
- Our purpose and mission underpin our resolve to contribute to the development of the semiconductor industry and the sustainable development of society through our business activities, and to meet the expectations of all our stakeholders.
- Our Grand Design Vision Statement remains unchanged. In order to continue adding customer value in the evolving semiconductor value chain, we will continue to seek to expand our business domains while utilizing M&A.

## Grand Design Update: Commitments & Strategies

### Commitments

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

### Strategies

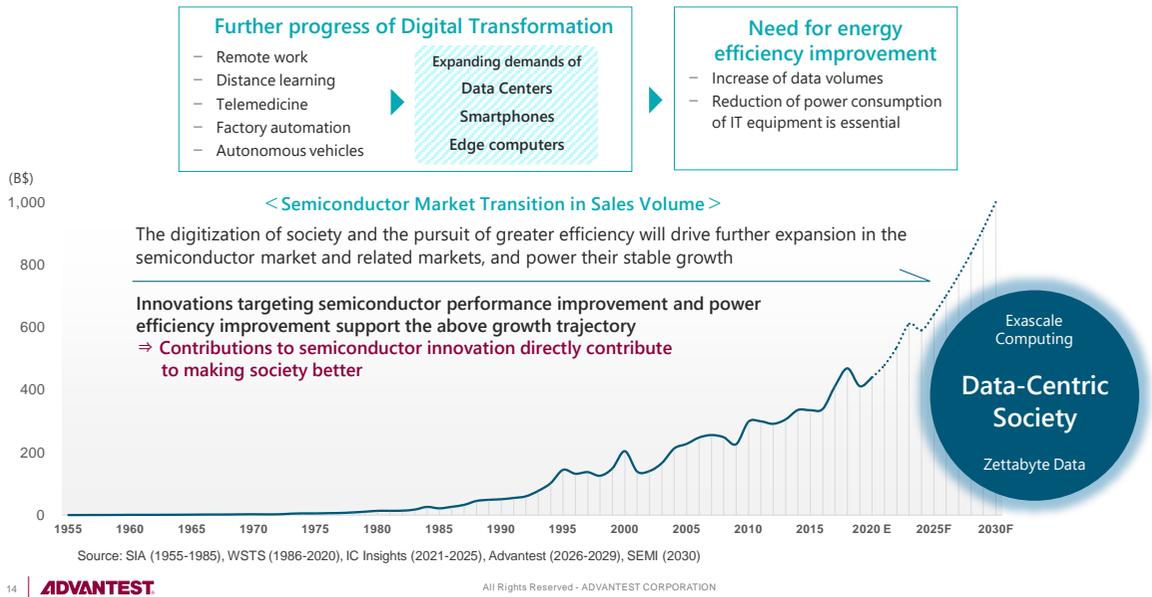
- 1 Reinforce Core Businesses, Invest Strategically
- 2 Seek Operational Excellence
- 3 Explore Value to Reach a Higher Level
- 4 Pioneer New Business Fields
- 5 Enhance ESG initiatives

**Based on our external environment outlook, we have added a fifth strategic issue, while adhering to our existing basic policy  
Contributing to humanity's sustainable future through our business activities**

### ○ A new Grand Design strategy added

- Our Grand Design also sets out what we want to be and what we should do.
- We will adhere to our commitments and strategies in keeping with our external environment forecasts, but in order to respond to the growing prominence of ESG worldwide, we will also further enhance our ESG initiatives, such as response to climate change. This has been added as a fifth strategy of our Grand Design to underline the importance of contributing to humanity's sustainable future through our business activities.

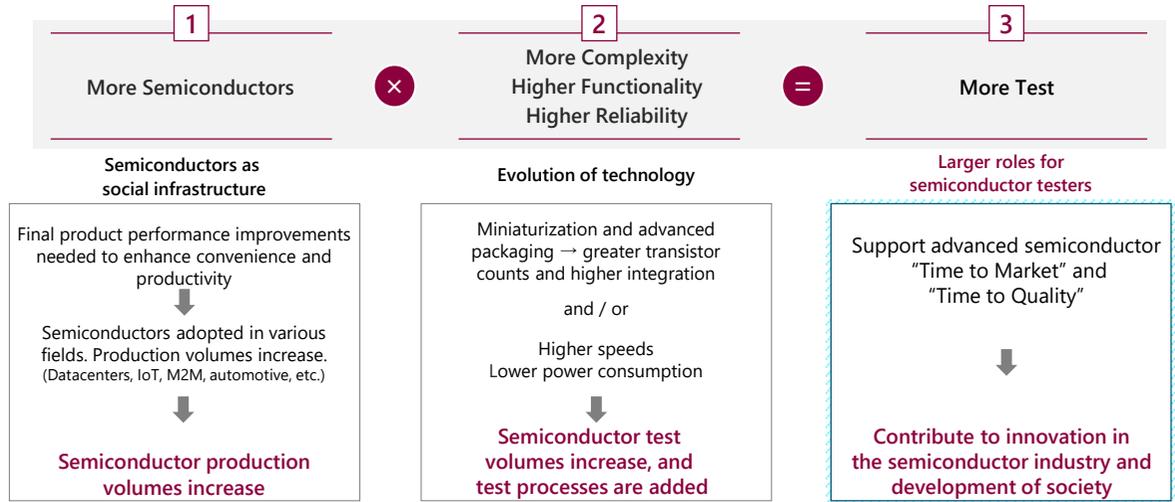
## Semiconductors are Essential for Greater Social Convenience & Solutions for Social Issues



### ○ The future importance of semiconductors

- Please turn to page 14.
- I'll now talk about our business environment as background to our sales target.
- Due to the recent shortage of semiconductors, many have come to understand that semiconductors are indispensable for improving convenience and solving problems.
- In the future, as the digital transformation progresses, "M2M" (Machine to Machine) data traffic will increase significantly, and the semiconductor market will grow further over the medium- to long-term as technological evolution further improves the performance of individual semiconductors.
- At the same time, the energy efficiency of semiconductors will be improved in response to social demands for a smaller environmental footprint.
- It can be said that contributing to semiconductor innovation contributes not only to the semiconductor market but also to the creation of a better world.

## Expansion of Semiconductor Tester Demand and Role



### ○ The future importance of test

- How will the role of semiconductor testers change as the semiconductor market continues to grow?
- As semiconductors increasingly take on the role of social infrastructure, semiconductor production volumes will continue to increase.
- The technological evolution of semiconductors, happening in parallel to this increase, will generate increasing complexity that drives needs for more test and stronger quality assurance.
- These two factors will multiply the demand for semiconductor test.
- In addition, Time To Market and Time To Quality are becoming even more important for customers seeking stable volume production of high-performance semiconductors.
- As the difficulty of designing and manufacturing semiconductors increases at an accelerating rate, the process of actually passing electricity through devices to verify and correct their performance and reliability on the spot—that is, the role of the tester—is becoming more and more important.

## Long-Term Structural Changes in the Tester Market

The increasing need to ensure reliability due to the increasing complexity of semiconductors and the expansion of semiconductor demand have continuously boosted the demand for testers.

The challenges of semiconductor miniaturization, advancing complexity, and power consumption reduction have continually raised the bar for improving test efficiency.



### ○ Structural changes in the tester market

- I'll now summarize the trends I just mentioned in the context of the tester market.
- In the past, the demand for semiconductor testers has been influenced by trends in the market for final products such as PCs. In the years when semiconductor production and technology progressed, demand grew, and in other years, efficiency would improve and tester demand would fall. This was a cyclical market.
- However, since 2017, when the spread of applications using semiconductors, the shift to semiconductors as social infrastructure, and the digital transformation all began to take off, the market has turned into a cyclical growth market where demand fluctuates and grows.
- In the future, semiconductors will be increasingly required by society, and the development of further infrastructure will drive the market. In addition, the technological evolution of semiconductors will continue in the future.
- Demand will continue to rise and fall due to improvements in test efficiency, etc., but due to the increasing difficulty of technology, this impact is expected to be smaller than in the past.
- Overall, the semiconductor tester market is expected to grow more stably in the future.

## Test Technology Will Be a Key Enabler of Future Semiconductor Innovation

### Direction of Semiconductor Innovation

#### Improved circuit integration

- Miniaturization
- Advanced packaging
- Heterogeneous integration (integration of different types of devices)

#### Higher power efficiency

- Lower power consumption
- Higher voltage

#### Higher speeds Higher bandwidths

- mmWave antennas
- Memory

Introduction of integrated systems controlling semiconductor performance and quality through to post-installation of modules for Time to Market

### Opportunities for Advantest

#### Adding test processes along with TAM expansion



#### Increasing demand for more accurate measurement capability



#### Provide test analysis data covering multiple processes using our AT Cloud solutions\*



\* Software platform developed based on platform by PDF Solutions, Inc. (capital and business alliance partner)

### ○ Test technology as a key enabler of semiconductor innovation

- This slide summarizes the evolution of semiconductors and how this connects to opportunities for Advantest.
- Firstly, semiconductors are becoming more highly integrated. In the future, in addition to miniaturization, there will be an increasing number of cases where circuit integration will be increased by using advanced packages and heterogeneous integration.
- This adds to the complexity of semiconductors. As a result, we expect an increase in demand for testers in conjunction with the addition of new test processes.
- The ability to accurately measure electricity is essential for improving energy efficiency and speeding up data transmission. Existing test equipment will be replaced or upgraded for new tests.
- The third item, "introduction of integrated systems controlling semiconductor performance and quality" is a new concept. We have built a cloud environment for this called "AT Cloud solutions".
- In addition to capturing system level test demand, we will introduce quality control across the fragmented manufacturing process of semiconductors to see if it will be possible to shorten time to market. We will continue to work on the development of innovative solutions combining hardware and software while exploring solutions with our customers.

## New Mid-Term Plan to Achieve Grand Design Goal

Newly-set MTP2 targets are based on MTP1 progress and our mid-term tester market forecast  
Our Grand Design goal of ¥400B in sales will remain, but we aim for early achievement

	MTP1		MTP2		Grand Design Goal
	1USD=109JPY		Exchange rate assumption: 1USD=105JPY		
	FY2017 Actual	FY2018-20	FY2021-23 (Forecast)		FY2027 or earlier
		Tester market CAGR: 9% (vs CY17)	CAGR 7% Case (vs MTP1 Avg.)	CAGR 8% Case (vs MTP1 Avg.)	
<b>Tester Market</b>	Approx. \$ <b>3.0B</b> CY17	Approx. \$ <b>3.8B</b> (CY basis, 3-year Avg.)	Approx. \$ <b>4.6B</b> (CY basis, 3-year Avg.)	Approx. \$ <b>4.8B</b> (CY basis, 3-year Avg.)	> \$ <b>5.0B</b>
<b>Advantest Share</b>	<b>36%</b> CY17	<b>50%</b> (CY basis, 3-year Avg.)	> <b>50%</b> (CY basis, 3-year Avg.)	> <b>50%</b> (CY basis, 3-year Avg.)	> <b>50%</b>
<b>Sales</b>	<b>¥207.2B</b>	<b>¥290.4B</b>	<b>¥350B</b>	<b>¥380B</b>	> <b>¥400B</b>
Core businesses	—	¥272.4B	¥315B	¥340B	> ¥340B
New businesses (e.g. SLT)	—	¥18.0B	¥35B	¥40B	¥60B

### ○ Towards achievement of our Grand Design goal

- As explained above, the semiconductor market, which is the source of our growth, is expected to grow sustainably.
- In addition, as the role of semiconductor testing is set to expand, we expect this favorable environment will continue for the time being.
- These expectations are factored into our second three-year mid-term management plan (FY2021-FY2023) (MTP2), which we formulated in order to further secure our path toward achieving our Grand Design goal, and which starts from this year.
- The sales target of MTP2 is ¥350-380 billion (three-year average from FY21 through FY23).
- Regarding market share, we have already exceeded our long-term target of 47%, so we will aim for 50% or more in the future.
- Regarding the Grand Design goal, sales of ¥300 billion yen as set forth in the conservative scenario of MTP1 were already achieved in FY2020, so we have changed the timeframe for "achievement of sales of ¥400 billion" defined in the base plan to "FY2027 or earlier."

## New Mid-Term Plan (MTP2: FY2021-FY2023)

- New mid-term plan
  - We'll now move on to an explanation of MTP2.

The Aim of Our New Mid-Term Plan:

## Make Another Leap While Adhering to the Principles of MTP1

- 1 **Grow our core businesses**  
⇒ Focus on expanding our core businesses while market is expanding
- 2 **Expand our business into new domains**  
⇒ ① Seek opportunities in the semiconductor value chain from a mid/long-term perspective  
② Search for non-semiconductor business opportunities
- 3 **Continue active investments for growth and seek further capital efficiency**
- 4 **Enhance ESG initiatives**



**Enhance Corporate Value  
Strengthen Foundation for  
Sustainable Growth**

Enabling better semiconductor performance, higher reliability, and lower power consumption together with customers and partners through testing



### ○ Aim of our new mid-term plan

- I'll first outline MTP2.
- It aims for a further leap toward achieving the final goal of our Grand Design.
- Following the success of our previous mid-term management plan, we will work to expand our core business and grow businesses in new areas.
- To that end, we aim to maintain aggressive growth investments, and at the same time seek further capital efficiency.
- We will also enhance our ESG initiatives, seeking to improve corporate value and strengthen our foundation for sustainable growth.

## Mid-Term Plan 2: Key Strategies

We will resolutely implement 5 strategies to ensure achievement of our Grand Design goals

- 1 Further Strengthen Core Businesses, Invest Strategically**
  - Enhance engagement with leading-edge customers
  - Launch competitive test platforms and grow recurring revenue from expanding our installed base
- 2 Seek Operational Excellence**
  - Strengthen core technologies through continuous R&D investment
  - Enhance production systems and maintain high quality in line with business expansion
  - Strengthen human resource development and training
  - Improve balance sheet management and cash management linked to earnings performance
- 3 Explore Value to Reach a Higher level**
  - Provide integrated test solutions from semiconductor design verification to system level test
  - Continue to expand our business domains, including deployment of the AT Cloud solutions
- 4 Pioneer New Business Fields**
  - From the long-term point of view, develop new businesses beyond the semiconductor value chain by leveraging our technologies
- 5 Enhance ESG initiatives**
  - Make our business healthier and stronger, and contribute to global safety, security, comfort and the creation of our sustainable future

### ○ Key strategies of new mid-term plan

- We will promote five strategies to achieve the goals of MTP2.
- ① ~ ④ are inherited from our previous mid-term management plan, but ⑤ is a new strategy.
- During the period of the previous mid-term management plan, major unexpected changes, such as the US-China trade conflict and the COVID-19 pandemic, occurred. We must heighten our ability to respond to such changes in the future. Great changes in society and in the structure of industry are both risks and opportunities. We will therefore hone our ability to keep up with future changes in the environment and respond to uncertainties, while also further enhancing our ESG initiatives.

## Further Increase our Superiority in the Tester Market

### Global No.1 product portfolio

- Highly scalable modular architecture platforms
- Dominant position in growth areas: DRAM, NVM, high performance computing, networks

### Global No.1 customer base

- Unparalleled customer base nurtured over many years
- Semiconductor market coverage from system vendors to downstream, across all regions

### Total test solutions and global support including peripheral technologies

- We offer comprehensive test environments including device I/F peripherals

### MTP2 Measures

#### I New solutions to support next-generation devices

- V93000 EXA Scale test platform for high end devices
- New memory test platforms
- More detailed solutions for a variety of applications

#### I Further strengthen customer relationships

- Strive to develop relationships with high potential emerging players (fabless start-ups and IT services companies)

#### I Data collaboration and utilization through the AT Cloud solutions

#### I Explore new value creation

#### I Enrich local talent and resources

## ○ Measures to strengthen our core business overall

- Our semiconductor tester business as a whole has three strengths. We will further reinforce all of them.
- Our product portfolio currently positions us to capture demand in all directions. We will continue to provide solutions in line with the evolution of semiconductors and further strengthen our position.
- Regarding our customer base, we will accelerate the acquisition of emerging players, including major IT companies that have entered the growing semiconductor market in recent years and promising fabless companies, with the aim of solidifying our mid- to long-term growth base.
- With our large customer base of semiconductor manufacturing companies, including IDMs, fabless companies, foundries, and OSATs, we are unique in the SPE industry. We will develop new solutions that leverage this customer base.
- Our comprehensive consulting ability for test know-how is also a strong advantage. We will enhance our local resources so that we can provide even better high-quality consulting near our customers' sites.

## Semiconductor Tester Market Assumptions for Mid-Term Plan 2

(in USD)	CY2017 Actual	CY2018-20 Actual Annual Avg.	CY2021-23 CAGR 7% Case Annual Avg.	CY2021-23 CAGR 8% Case Annual Avg.
<b>Market Size</b>	Approx. 3.0B	Approx. 3.8B	Approx. 4.6B	Approx. 4.8B
Growth rate vs. Avg. of CY18-20			+21%	+26%
<b>SoC Tester</b>	Approx. 2.2B	Approx. 2.8B	Approx. 3.3B	Approx. 3.4B
Market share result/target	30%	47%	>50%	>50%
<b>Memory Tester</b>	Approx. 0.8B	Approx. 1.0B	Approx. 1.3B	Approx. 1.4B
Market share result/target	57%	57%	60%	60%

### ○ Mid-term semiconductor tester market model

- This is the medium-term model of the tester market that is the premise for MTP2. It is based on future growth forecasts for SoC testers and memory testers.
- Compared to the 3-year average for our previous mid-term management plan, the market is expected to grow by approximately 20% to 25% over the next 3 years.
- Tester investments, unlike fab capital investment plans, are made on short time horizons of a few months, tracking real demand from our clients and their application trends.
- We created this forecast based on current application and technology trends and information from our customers, but in the long-term, demand for testers will trend similarly to demand for front-end equipment. If that trend develops in the medium term, numbers closer to the aggressive numbers of current front-end equipment companies could come within reach in the near future.
- With regard to market share, we will aim for a level that is one step higher than the market share achieved during our previous mid-term management plan period, as higher-performance semiconductors will go mainstream over the next three years.

## Focus of Each Business Under Mid-Term Plan 2

### Semiconductor and Component Test System

#### SoC Testers

- Further miniaturization and the adoption of advanced packages will drive the expansion of demand for high-performance SoC testers over the medium term. We will step up efforts to capture test demand for smartphone-related SoC and HPC\* devices, which have been prominent in our demand structure, with our new flagship V93000 EXA Scale.
- The evolution of the 5G standard is expected to spur full-scale demand for millimeter wave-related semiconductor testing from 2022 onwards. This technological transformation is an opportunity for game change, and we aim to establish a leadership position in 5G RF testing.
- Volume growth and higher performance/accuracy trends are progressing in MCUs, Analog ICs, Sensors, Display driver ICs, etc. for consumer electronics, automobiles, and FA equipment. As customer investment stances improve, we will continue to increase our market share by meeting customer needs in detail.

#### Memory Testers

- We continue to be the only tester provider that can provide solutions for all players and all test processes in both DRAM and NVM. We will continue to invest in competitive solutions to maintain and increase our market share amidst growing tester demand in line with the industry trend of migration to greater density / higher bandwidths.

\*HPC: High Performance Computing

## ○ Focus of each business under MTP2

- I'll now discuss our measures for each business segment.
- In SoC testers, we believe that further node shrinks and the widespread adoption of advanced packages and 5G millimeter-wave devices will create great opportunities for us.
- Apart from advanced processes, the SoC tester market has a number of other growth paths. As the best partner of our customers, who lead the world in innovation, we will develop test solutions cooperatively with them.
- In memory testers, we plan to continue to claim a majority share of the market by leveraging our position as the only tester vendor that can provide solutions for all players and all testing processes.

## Focus of Each Business Under Mid-Term Plan 2

### **Mechatronics System**

- We will provide test cell environments that improve test quality as the importance of semiconductor reliability is further emphasized.
- We will expand our EUV mask inspections business as EUV lithography is more widely adopted.

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

- We will expand post-sales by providing OEE\* improvement solutions using AT Cloud environments.
- We will expand our customer base in mobile, HPC, automotive, memory and storage, etc., by leveraging increased focus on the effectiveness of system level test in mission-critical applications against the backdrop of growing demand for reliability.
- In our system level test business, we will increase recurring revenue by expanding sales of consumables such as contactors in addition to increasing sales of main units.
- Our data analytics business prioritizes building high-value solutions and exploring innovative business models.

\*OEE: Overall Equipment Effectiveness

## ○ Focus of each business under MTP2

- In our mechatronics-related business, we will promote sales of test cells.
- The nanotechnology division will focus on mask inspection equipment, and also explore other applications for our EB technology.
- The SLT division, which has driven remarkable growth in our Services, Support and Others business segment over the past two years, will continue to pursue business expansion through new customer wins. To grow recurring sales, we will also grow sales of consumables such as contactors to seek synergies with growth of unit sales.
- In the field of data analytics, we will develop innovative solutions based on our AT Cloud solutions that integrate hardware and software, while holding discussions with our customers.

## Mid-Term Plan 2: Financial Targets

	Targets of MTP1 Base Scenario, Avg. of FY2018-20	MTP1 Results Avg. of FY2018-20	Targets of MTP2*2 Avg. of FY2021-23
Sales	¥250.0B	¥290.4B	¥350-380B
Operating Margin	17%	22.3%*1	23-25%
Net Income	—	¥60.1B	¥62-70B
ROE	18%	29.1%	20% or more
EPS	¥170	¥309	¥320-370

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

\*2. FY2021-23 financial targets are based on exchange rate assumptions of 105 yen to the US dollar

### ○ MTP2 financial targets

- These are the numerical management metrics for MTP2.
- Sales: ¥350-380 billion, depending on the tester market situation
- Operating profit margin: 23-25%
- Net income: ¥62-70 billion
- ROE: 20% or greater
- Earnings per share: ¥320-370
- Operating profit margin will not increase significantly due to the fact that development costs and costs associated with reinforcing local support personnel will continue to be incurred as we expand our business, and we do not anticipate one-time profits such as were posted during the period of MTP1. We will maintain our improved profit margins and seek to expand them, albeit not significantly.
- Net income growth during the period is expected to be impacted to an extent by the fact that we no longer have loss carryforwards, and thus our tax rate will return to normal, compared to our lower tax burden during MTP1.
- We have incorporated some shareholder returns through share repurchases into our EPS estimate.

## Mid-Term Plan 2: Cost/Profit Model

Increase profitability on a consistent basis by improving operational efficiency, while maintaining R&D investment as a source of growth

- Maintain our high level of R&D investment to date as a driving force for value creation and social contribution, aiming for a cumulative total of approximately ¥150B during Mid-Term Plan 2 (during Mid-Term Plan 1: approx. ¥120B)
- Maintain and improve gross margin by introducing competitive platforms
- Suppress the rise of SG&A as % of sales by pursuing operational excellence

	FY2020 result	MTP1 (FY2018-20 Avg.)	MTP2 (FY2021-23 Avg.)
Sales	¥312.8B	¥290.4B	¥350-380B
Cost of Goods Sold	46%	45%	45-46%
SG&A as % of Sales	31%	33%	30-31%
(of which R&D expenses)	14%	14%	13%
Operating Margin	23%	22%	23-25%

### ○ MTP2 cost/profit model

- As demand for semiconductor testers is expected to grow in the future, we will maintain our high level of R&D investment, which is the source of our growth, during MTP2.
- In addition, as mentioned earlier, with promising new players expected to emerge in the semiconductor manufacturing field, we plan to aggressively invest in courting these promising emerging customers to further solidify our business foundation.
- We will need to add excellent human resources to reinforce our support capacities, which are one of Advantest's strengths.
- It is difficult to improve SG&A efficiency during a customer development phase such as this, but we hope to improve operational efficiency and thus raise overall profitability.

## Mid-Term Plan 2: Growth Investments & Shareholder Returns

### While prioritizing active investments, expand shareholder returns

#### Strategic Investment in M&A, etc.

- Search for good targets with potential synergies in areas that will lead to strengthening our end-to-end test solutions
- Additionally, execute initiatives in line with mid/long-term strategy such as ramping up new businesses

#### Capital Expenditures

- Mainly for improving development & production capabilities and work efficiency to strengthen growth foundation, as well as employee engagement

#### Revised Shareholder Return Policy

- Our dividend payout model shall be revised from the performance-linked semi-annual dividend payout ratio of 30% to a minimum amount of ¥50 per share semi-annually and ¥100 per share annually, with the goal of ensuring stable and continuous dividends
- Our target is a total annual return ratio\* of 50% or more, including share buybacks.

(However, there is a possibility that we may not be able to disburse the targeted level of shareholder returns due to the occurrence of investment growth opportunities that require more funds than expected, and / or the deterioration of business performance due to changes in our market environment.)

	FY2018-20 Result	FY2021-23 Investment Targets		FY2018-20	FY2021-23 (estimate)	
Strategic Investments e.g. M&A	¥47.7B	¥100B		Shareholder Returns (Dividend + Share buybacks)	¥61.7B	¥150B or more
Capital Expenditure	¥30.2B	¥40B				

\*Total return ratio: (Dividend amount + Share buybacks)/consolidated net income

### ○ MTP2 growth investments and shareholder returns

- Regarding growth investment other than R&D expenses, we plan to use ¥100 billion for M&A and other purposes, and ¥40 billion for capital expenditure.
- In terms of selecting M&A opportunities, we will continue to search for projects that can generate synergies centered on the domains of our Grand Design vision.
- Regarding shareholder returns, on the premise of a stable business environment during the MTP2 period, we will change our return policy from the performance-linked semi-annual dividend payout ratio of 30% to a minimum amount of ¥50 per share semi-annually and ¥100 per share annually, with the goal of ensuring stable and continuous dividends. Our target is a total annual return ratio of 50% or more, including share buybacks. Cumulative shareholder returns for the MTP2 period are expected to be ¥150 billion or greater.
- However, this shareholder return policy may be revised in the event of investment growth opportunities that require more funds than expected, and / or the deterioration of business performance due to changes in our market environment.

## Capital Policy and Capital Allocation

Allocate cash flow generated to investments and shareholder returns, while maintaining financial soundness, to improve capital efficiency

### Operating cash flow outlook

- Expected to exceed ¥220B cumulatively over the next three years (MTP1 result approx. ¥180B)

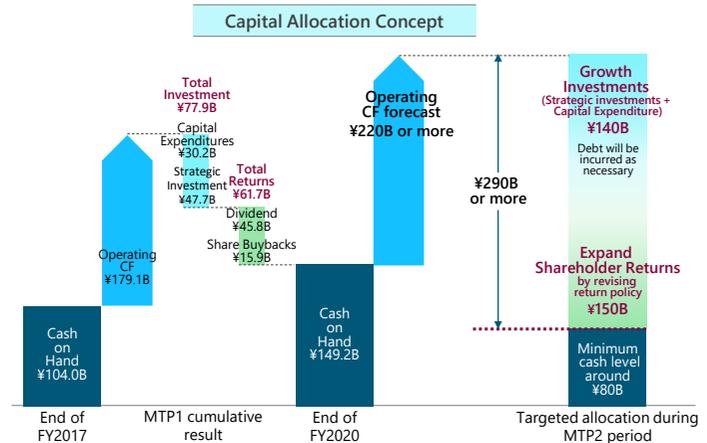
### Minimum cash reserves

- Expected to be around ¥80B under normal business conditions
- Consider flexibly returning excess cash to shareholders

### Balance sheet KPI

: Foundation for further growth and shareholder returns

- Financial soundness: Seek appropriate capital level with shareholder equity ratio of 50% or more
- Capital efficiency: ROE 20% or more
- ROIC-based business/investment management



## ○ MTP2 capital policy and capital allocation

- Our balance sheet management goal under MTP2 is to allocate generated cash flow to investments and returns while maintaining financial soundness.
- We will use a shareholders' equity ratio of 50% or more as a measure of financial soundness. Our capital efficiency metric is ROE 20% or higher. Both of these are KPIs for the period.
- Regarding cash management, the minimum amount of cash held under normal business conditions during the MTP2 period is forecast to be around ¥80 billion. Cumulative operating cash flow for the period is expected to be more than ¥220 billion, which with the addition of surplus cash on hand, as shown in the graph, gives us ¥290 billion available for future growth investments and shareholder returns.
- We will aggressively search for growth investment opportunities, but we will balance this policy with the return of profits to shareholders. We will also consider using debt, depending on our cash position. Also, as noted on the previous page, I would ask you to understand that the scale of shareholder returns may be reduced in certain cases, depending on our business environment.

# Enhancement of ESG Initiatives

- Enhancement of ESG initiatives
  - Lastly, I'll touch on our definition of corporate value and our ESG philosophy.

The Corporate Value Enhancement We Aim For:

## Expansion of social contributions through business growth

By balancing our activities along three axes, we enhance each activity and continuously increase future profits (cash flows)

### 1 Value from Shareholder Perspective

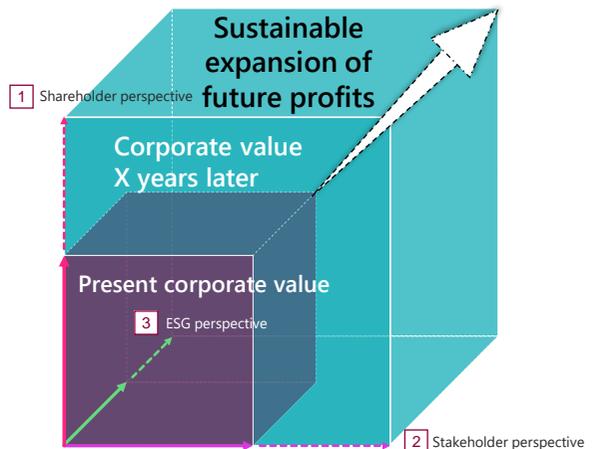
- ROE
- EPS
- ROIC

### 2 Value from Stakeholder Perspective

- Increase customer value
- Partnership with supply chain
- Employee engagement through human resource development & training

### 3 Value from ESG Perspective

- Response to climate change
- Diversity and inclusion
- Protection and respect for human rights
- Fair trade
- Relevance to future generations



## ○ Advantest's corporate value enhancement matrix

- We will contribute to humanity's sustainable future through our business activities.
- First of all, as shown in the graph, we aim to improve corporate value. By pursuing the three axes of shareholder value, stakeholder value, and ESG value in a well-balanced manner, we believe we can grow future profits while expanding the matrix that constitutes our corporate value.
- We believe that further enhancement of our ESG initiatives will synergistically promote the growth of the other two axes, and thus of corporate value overall.

Intangible Assets that Support Enhancement of Corporate Value :

## Corporate Governance & Human Capital

*Earning power is our foundation, based on our view of how companies should exist in a changing society*

### Management and execution system

- Development of management and execution systems to strengthen profitability
- As a company with a unique business structure, continuous reviews of our management structure in accordance with our global business development are needed

### Initiatives to further enhance governance

- Governance that balances the interests of all stakeholders, not just shareholders
- Revision of our director and executive officer compensation system that attracts overseas human resources with an awareness of global competitiveness
- Establishment and operation of succession plans for sustainable growth

### Strengthening the sustainability element of our human capital policy

- Promote socially responsible practices, including within our supply chain, such as achieving a higher level of diversity and respecting human rights
- Ensure fair employee treatment globally and improve employee engagement levels

### Human resource development

- Expand worldwide training opportunities for enrichment of all employees
- Introduce and instill a new leadership model appropriate to a global corporation
- Hire and retain the best talent in the industry

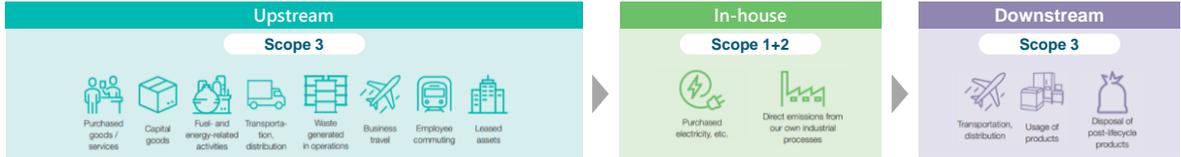
## ○ Intangible assets that support enhancement of corporate value

- G (governance) is the first essential component of ESG enhancement.
- As significant social changes continue, we will continue to consider what a company should be, and seek to implement management and execution systems that boost earning power.
- With this aim, we will promote a management system in line with global business trends, revise our executive compensation system, establish and operate succession plans, strengthen our governance system in areas such as operations, and aim to implement governance that balances the interests of all stakeholders, not just shareholders.
- S: In terms of society, we will promote values such as respect for human rights, including throughout our supply chain, and strengthen our policy on the development and enrichment of our human resources, who are the source of our growth.

## Climate Change Initiatives

### Amend environmental targets to aim for a "net-zero carbon" future

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



#### In-house initiatives (Scope 1 + Scope 2)

- Reduce GHG emissions from our business activities  
Target reduction rate\* by CY2023: 40% by CY2030: 60%
- Raise group-wide renewable energy usage  
Target coverage rate\* by CY 2023: 55% by CY2030: 70%

#### Our value chain initiatives (Scope 3)

- Reduce CO<sub>2</sub>-equivalent emissions (basic unit) per test  
Target reduction rate\* by CY 2023: 20% by CY2030: 50%



**In 2020, we supported TCFD and joined RE100. Now preparing for SBT (Science Based Targets) certification**

\*Comparison with 2018 results

## ○ Our response to climate change

- Regarding climate change initiatives, we have re-established the goals of Scope 1 + 2, our in-house initiative, and Scope 3, our value chain initiative, to further our contributions to a "net-zero carbon" future.
- In addition to having supported TCFD and joined RE100, we are currently preparing for SBT certification.
- The urgent need to respond to climate change is felt both in society at large and in the semiconductor industry where we do business. We will actively promote our efforts in this respect.

## Recent External Evaluations Related to ESG and Future Initiatives

### Corporate Governance of the Year 2020 Prize (Japan Association of Corporate Directors) Winner Company: Advantest Corporation



*"The semiconductor manufacturing equipment industry is a business prone to particularly large fluctuations in performance, but Advantest has been able to set capital costs, and make investment decisions based on them, following due consideration of the risks and growth potential peculiar to this industry. We take special note of the ingenuity that makes this possible."*

#### Evaluations on working environment



#### Inclusion in ESG indices



FTSE4Good



FTSE Blossom Japan



MSCI Japan Empowering Women (WIN) Select Index



S&P/IFX Carbon Efficient Index

### Major ESG Evaluations for FY2020 by Third Parties

VLSIresearch Customer Satisfaction Survey	Ranked #1 SPE Supplier
CDP Climate	B
CDP Supplier Engagement	B-
MSCI	BBB
Sustainalytics	TOP RATED
S&P Global Sustainability Award	Industry Mover 2021

We will continue to aim for more advanced ESG initiatives in response to social trends and needs during the MTP2 period

Third-party evaluations are also used as a reference for monitoring the progress of the Company's ESG initiatives

## ○ External ESG evaluations

- We have been working to disclose our ESG and other non-financial information through initiatives such as our three-yearly Environmental Action Plan (now in its 8th iteration) and Integrated Report (began publication in 2019).
- As a result of these ongoing efforts, we have received numerous ESG-related awards globally, including the Corporate Governance of the Year 2020 "winner company" award in January of this year, and the Great Place to Work award in Germany.
- In addition, external ESG evaluators have awarded us recognitions such as "Top rated" from Sustainalytics.
- Since there is still much room for improvement in the world overall, social trends and demands will go on changing. We will continue to respond to changes during the MTP2 period, further enhance our ESG initiatives, and improve our external evaluations.

## Summary

- Under our previous mid-term plan (MTP1), we achieved all our financial metrics thanks to the growth of the semiconductor tester market, our share gains, and rapid growth in new businesses acquired through M&As.
- Our business environment is expected to remain positive for the time being as the importance of semiconductors increases against the backdrop of the digital transformation, the semiconductor market continues to expand, and the performance, complexity, and reliability of semiconductors continue to advance.
- Under our new mid-term plan (MTP2), as a step towards sales of ¥400 billion, which is the final goal of our "Grand Design" mid- to long-term management policy, we will work along two axes: (1) expand existing businesses that leverage our strengths, and (2) develop new businesses—a mid- to long-term theme—with the goal in both cases of focusing on mid- to long-term earnings base reinforcement.
- During the MTP2 period, we will also continue to make aggressive investments to achieve our Grand Design goal, while strengthening capital efficiency and shareholder returns.
- During the period of our previous mid-term management plan, unprecedented risks such as US-China trade friction and COVID-19 emerged. Uncertainty is increasing. We aim to further improve our ability to adapt to future changes in our environment and respond to risks and opportunities. Additionally, we will enhance our ESG initiatives.

## ○ Summary

- Lastly, I will summarize today's takeaways.
- Under our previous mid-term management plan, we achieved all our financial targets by expanding our share of the semiconductor tester market amidst market expansion, and expanding our business through M&A.
- Amidst the increase in the importance of semiconductors driven by the digital transformation, the expansion of the semiconductor market, and the increasingly high performance, complexity, and reliability of semiconductors, our business environment is expected to remain positive for the time being.
- Under our new mid-term management plan, as steps towards the final goal of sales of ¥400 billion set forth in our "Grand Design" mid- to long-term management policy, we will pursue two axes: (1) revenue and profit growth through expansion of existing businesses utilizing our strengths, and (2) development of new businesses, a mid- to long-term theme.
- The new mid-term management plan also calls for continued active investment to achieve our Grand Design goal, while improving capital efficiency and reinforcing shareholder returns.
- On the other hand, during the previous mid-term management plan, unprecedented risks such as the US-China trade conflict and the COVID-19 pandemic emerged. Uncertainty is increasing. We aim to further improve our ability to adapt to future changes in our environment and respond to risks and opportunities. Additionally, we will enhance our ESG initiatives.
- This concludes my explanation of our new mid-term management plan. Thank you for your attention.