

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

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Advantest Corporation

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Tested by
ADVANTEST

NOTE

Accounting Standards

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

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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

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

MTP1: Achieved all key management metrics

Results significantly exceeded all MTP1 numerical key management metrics

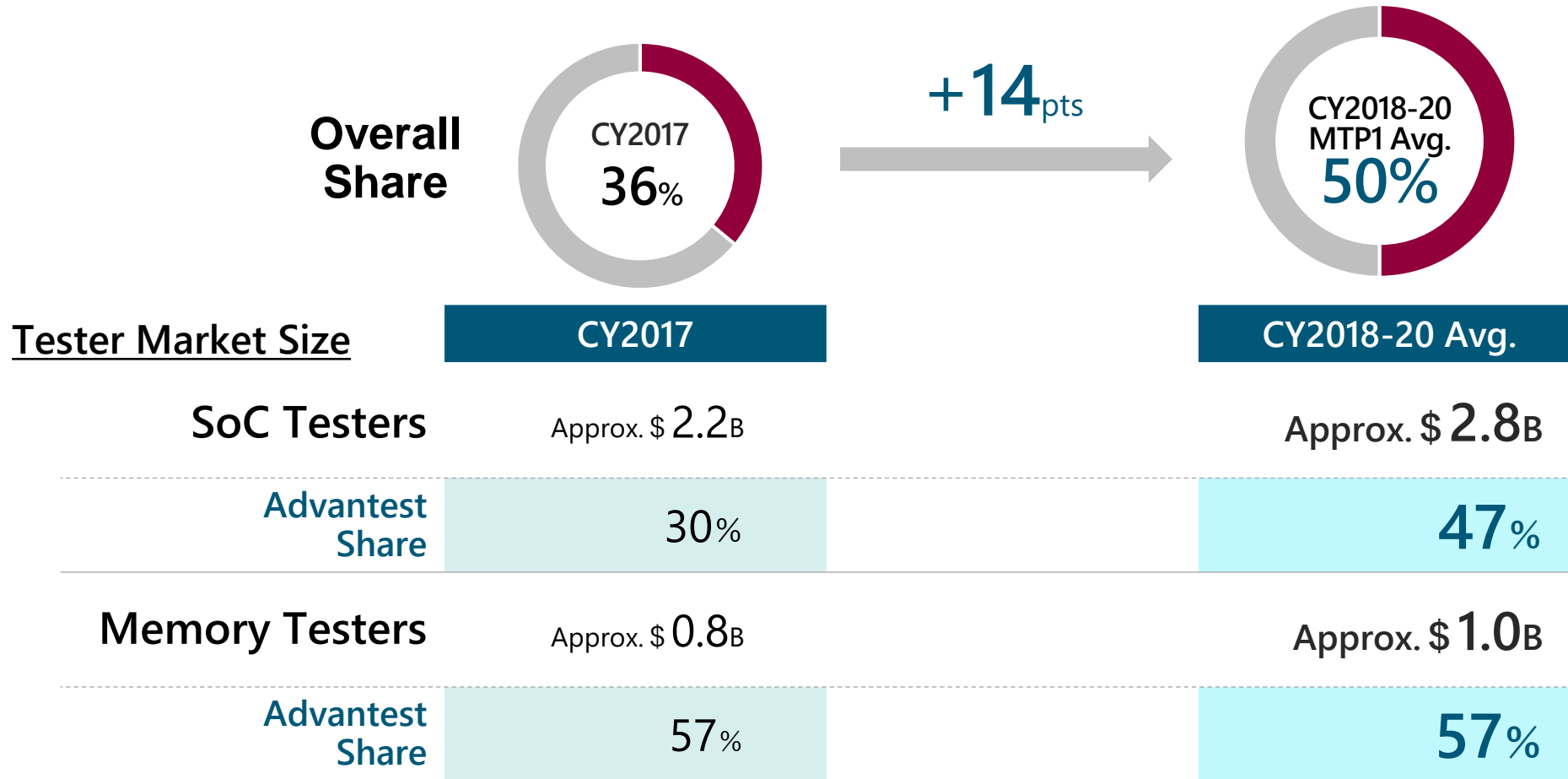
	FY2015-17 Average	MTP1 Numerical Targets		MTP1 Results			
		Targets (FY2018-20 Average) Conservative	Base	FY2018 Results	FY2019 Results	FY2020 Results	FY2018-20 Average
Sales	¥175.1B	¥230.0B	¥250.0B	¥282.5B	¥275.9B	¥312.8B	¥290.4B
Operating Margin	9%	15%	17%	22.9%	21.3%	22.6%	22.3%
ROE	12%	15%	18%	35.3%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



Contributing Factor 1:

Accurately calibrated efforts during an expansion phase in the tester market

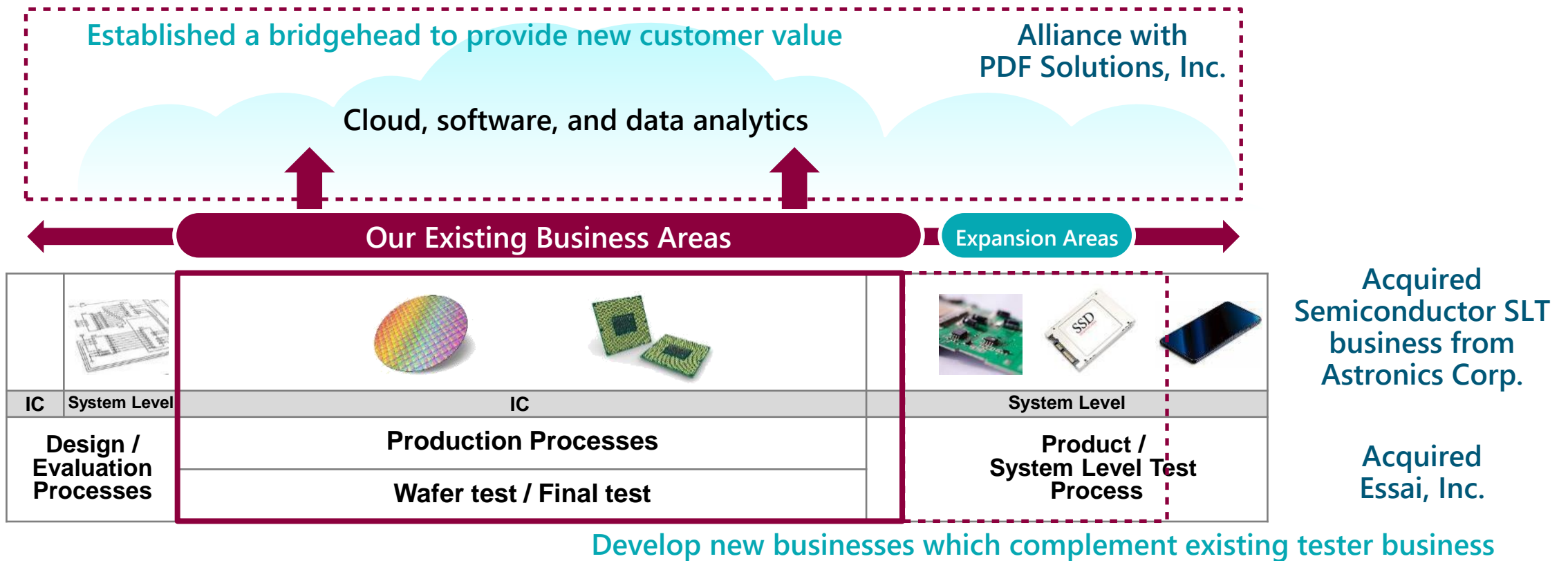
Our long-term strategy to build a broad customer base and leverage our extensive product portfolio has led to significant growth in market share, while the market itself has expanded



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.



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



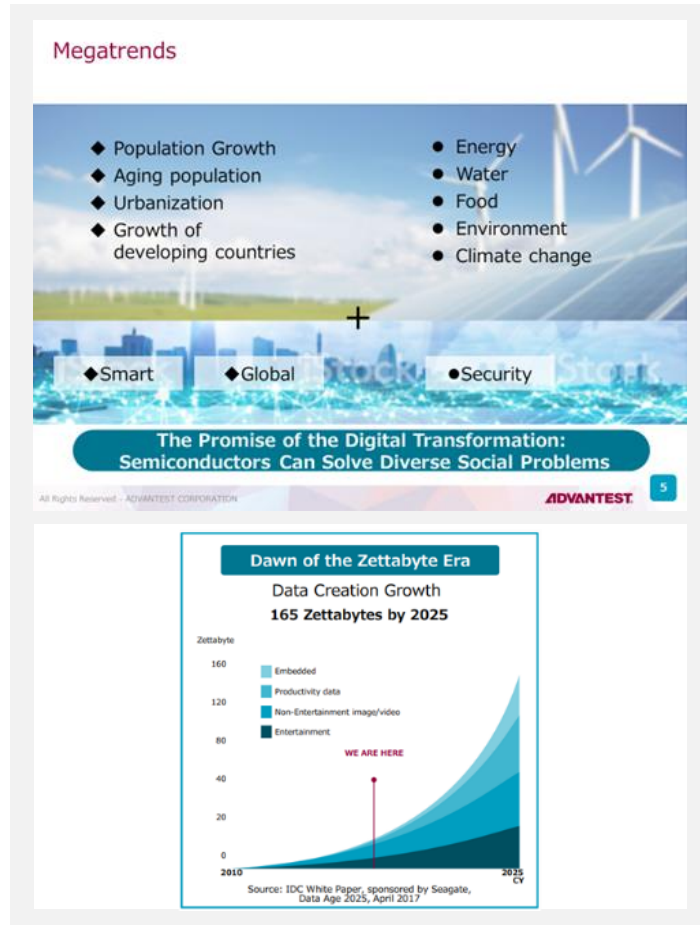
Major ESG initiatives During MTP1 Period

- 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

Business Environment Survey & Grand Design Update

(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

(2) Grand Design update

FY2021-FY2023 and Beyond

Technology

The digital transformation will continue

Semiconductors will increasingly contribute to solutions for various issues such as the need to reduce energy consumption



Society

Changes in society, the structure of industry, and individual lifestyles will accelerate

- Reactions against globalization, rise of economic nationalism
- Post-COVID transformation of society
- Influence of millennials/Gen Z



ESG

Interest in ESG will continue to grow

- "Carbon neutral" initiatives
- Revised Corporate Governance Code



Grand Design Update

Follow through on our existing Commitments and Strategies

Reinforce our ability to collect and analyze information
Improve our ability to flexibly cope with changes

Enhance ESG initiatives

Grand Design: Fidelity to Our Corporate Mission & Vision

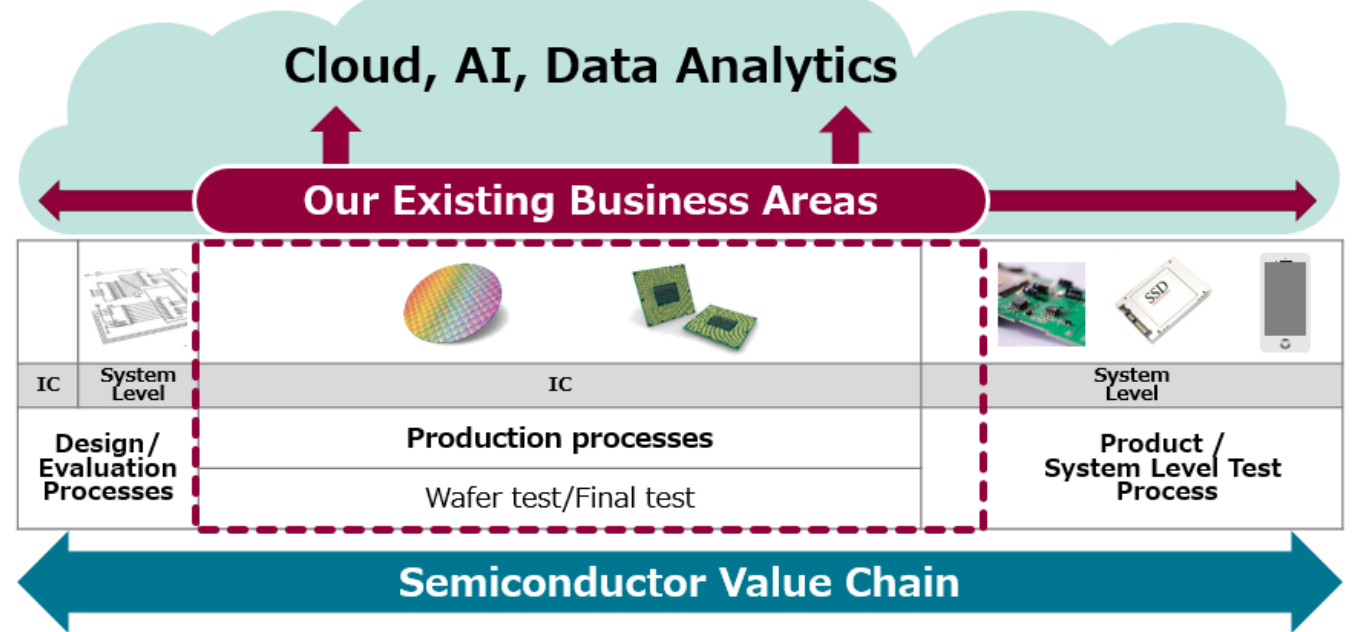
Corporate Purpose & Mission

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



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

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

Further progress of Digital Transformation

- Remote work
- Distance learning
- Telemedicine
- Factory automation
- Autonomous vehicles

Expanding demands of
Data Centers
Smartphones
Edge computers

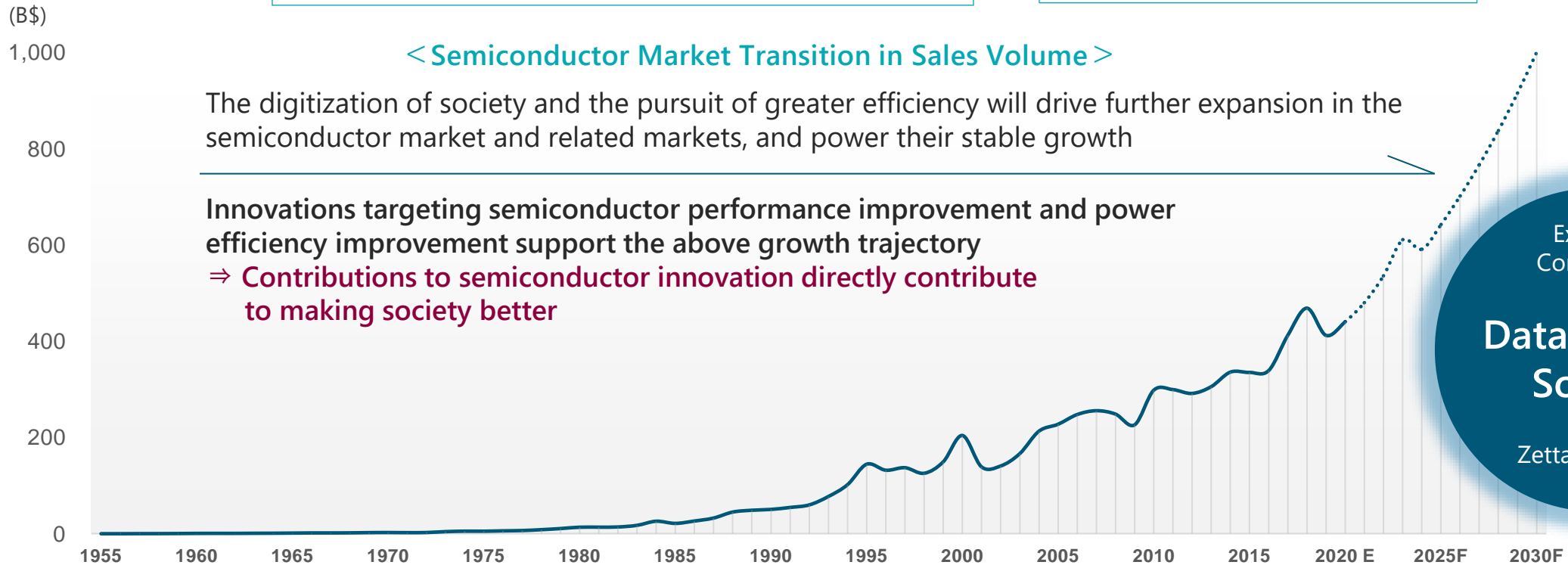
Need for energy efficiency improvement

- Increase of data volumes
- Reduction of power consumption of IT equipment is essential

< Semiconductor Market Transition in Sales Volume >

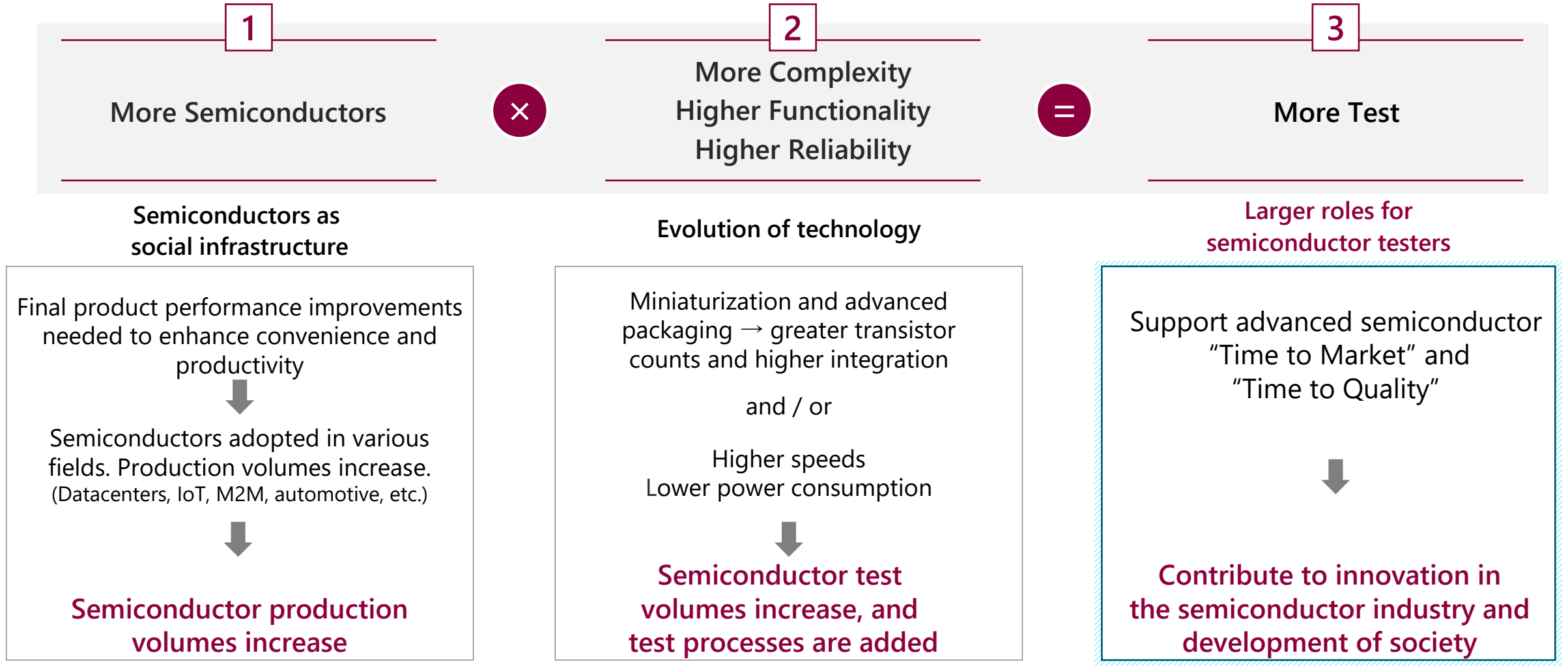
The digitization of society and the pursuit of greater efficiency will drive further expansion in the semiconductor market and related markets, and power their stable growth

Innovations targeting semiconductor performance improvement and power efficiency improvement support the above growth trajectory
⇒ **Contributions to semiconductor innovation directly contribute to making society better**



Source: SIA (1955-1985), WSTS (1986-2020), IC Insights (2021-2025), Advantest (2026-2029), SEMI (2030)

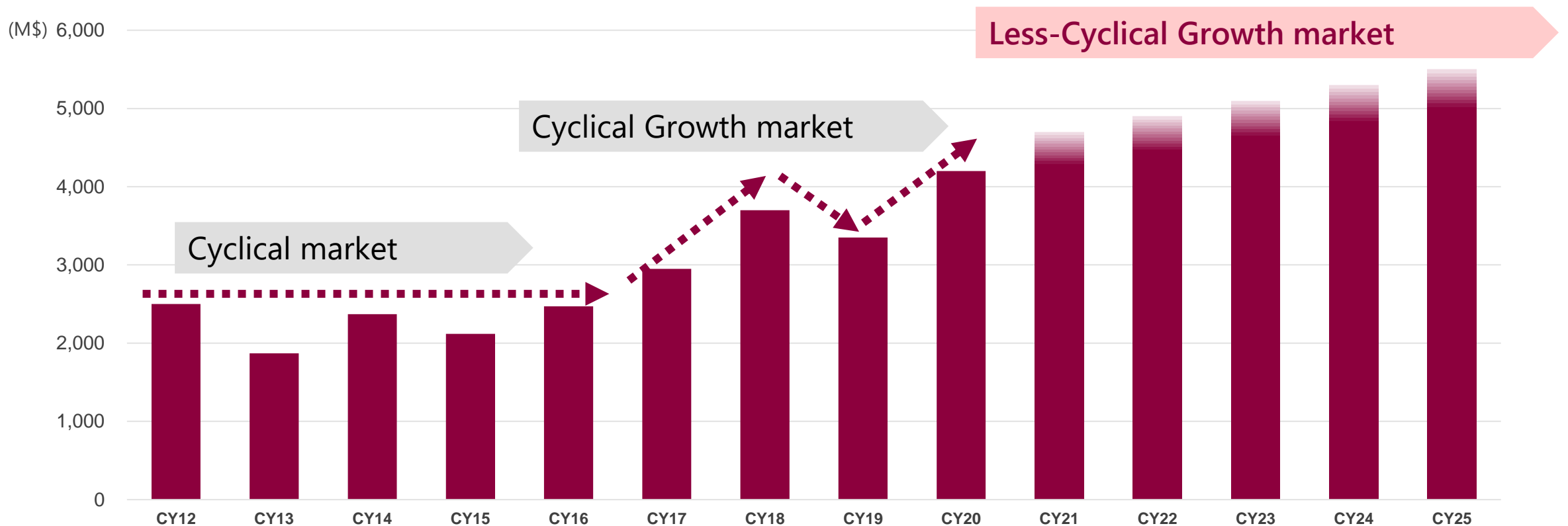
Expansion of Semiconductor Tester Demand and Role



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.



Source: Advantest

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

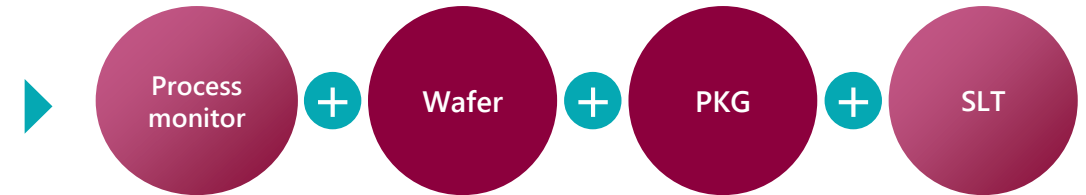
Higher speeds Higher bandwidths

- mmWave antennas
- Memory

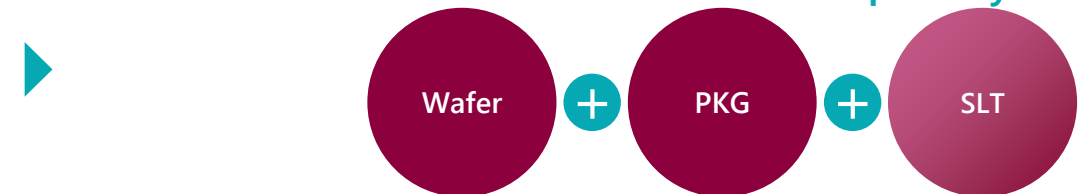
Introduction of integrated systems
controlling semiconductor performance and quality
through to post-installation of modules for Time to Market

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)

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.)	
Tester Market	Approx. \$ 3.0B CY17	Approx. \$ 3.8B (CY basis, 3-year Avg.)	Approx. \$ 4.6B (CY basis, 3-year Avg.)	Approx. \$ 4.8B (CY basis, 3-year Avg.)	> \$ 5.0B
Advantest Share	36% CY17	50% (CY basis, 3-year Avg.)	> 50% (CY basis, 3-year Avg.)	> 50% (CY basis, 3-year Avg.)	> 50%
Sales	¥ 207.2B	¥ 290.4B	¥ 350B	¥ 380B	> ¥ 400B
Core businesses	—	¥272.4B	¥315B	¥340B	> ¥340B
New businesses (e.g. SLT)	—	¥18.0B	¥35B	¥40B	¥60B

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

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



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

5 Enhance ESG initiatives

- Make our business healthier and stronger, and contribute to global safety, security, comfort and the creation of our sustainable future

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

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

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.
Market Size	Approx. 3.0B	Approx. 3.8B	Approx. 4.6B	Approx. 4.8B
Growth rate vs. Avg. of CY18-20			+21%	+26%
SoC Tester	Approx. 2.2B	Approx. 2.8B	Approx. 3.3B	Approx. 3.4B
Market share result/target	30%	47%	> 50%	> 50%
Memory Tester	Approx. 0.8B	Approx. 1.0B	Approx. 1.3B	Approx. 1.4B
Market share result/target	57%	57%	60%	60%

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 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

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

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%



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

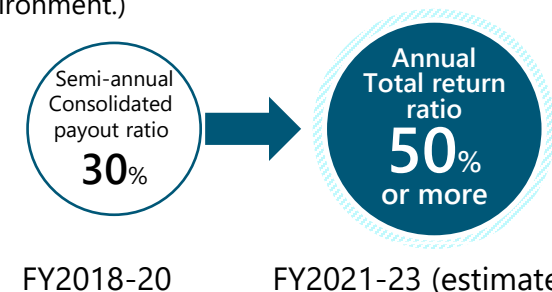
- Mainly for improving development & production capabilities and work efficiency to strengthen growth foundation, as well as employee engagement

	FY2018-20 Result	FY2021-23 Investment Targets
Strategic Investments e.g. M&A	¥47.7B	¥100B
Capital Expenditure	¥30.2B	¥40B

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.)



Shareholder Returns (Dividend + Share buybacks)	¥61.7B	¥150B or more
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*Total return ratio: (Dividend amount + Share buybacks)/consolidated net income

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

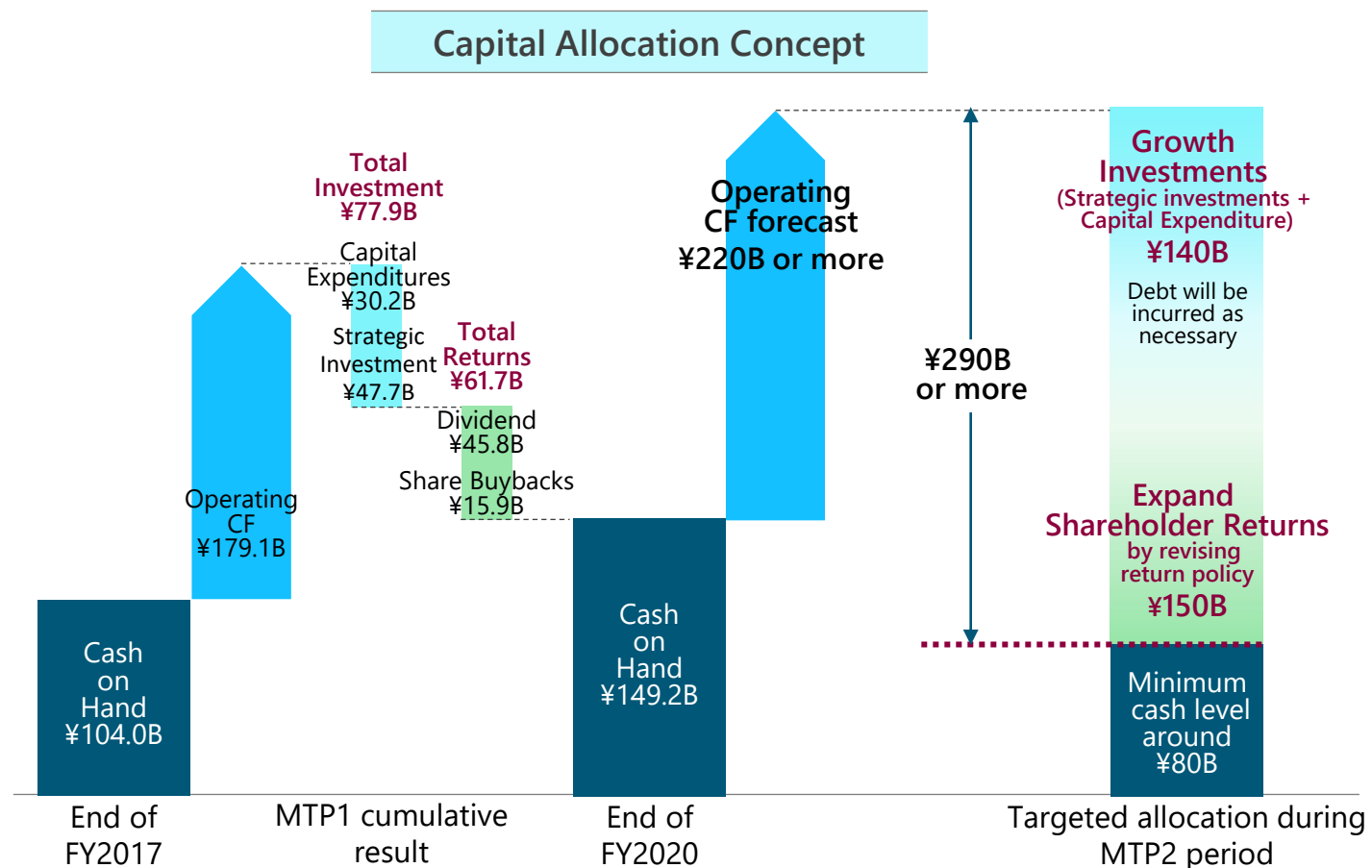
- Expected to be around ¥80B under normal business conditions
- Consider flexibly returning excess cash to shareholders

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

Capital Allocation Concept



Enhancement of ESG Initiatives

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

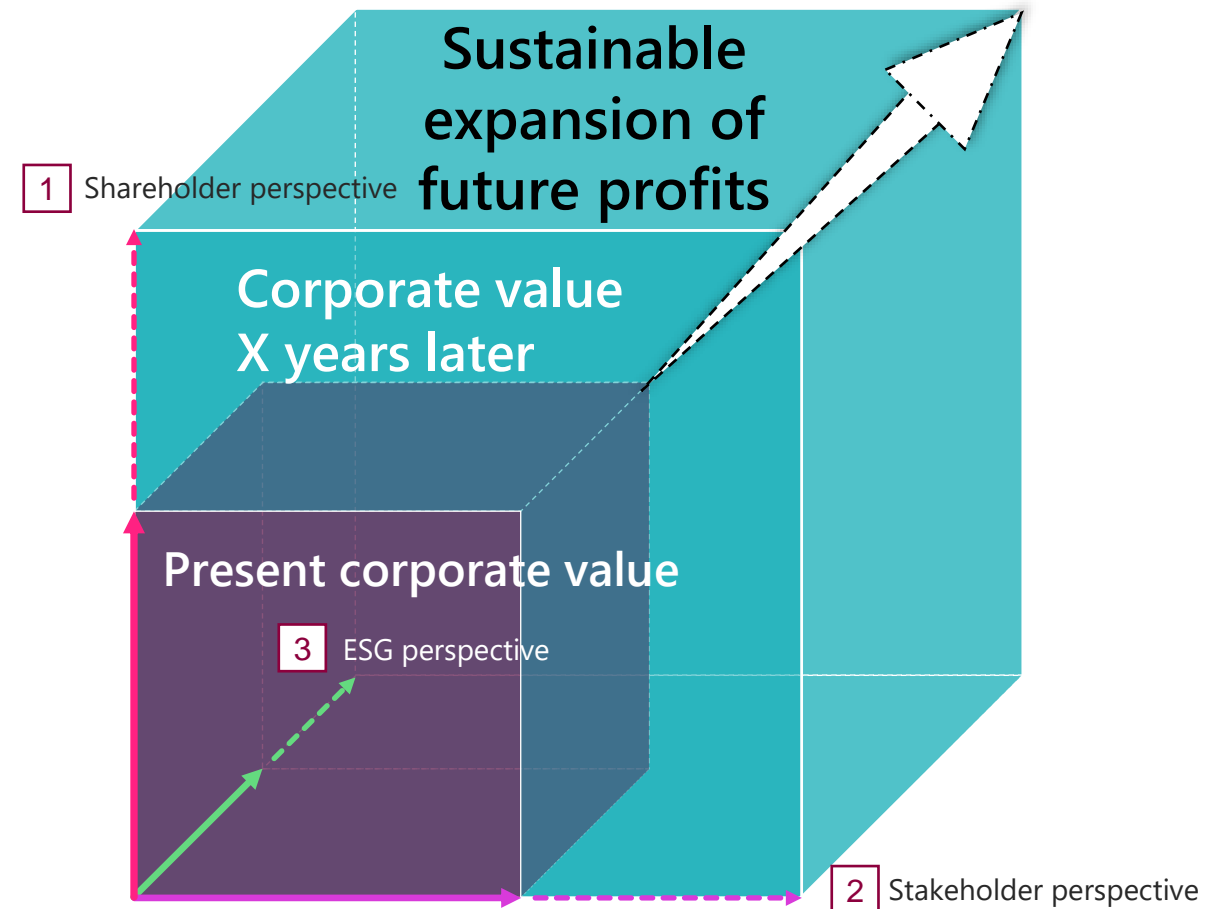
- ROE - EPS
- ROIC

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



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

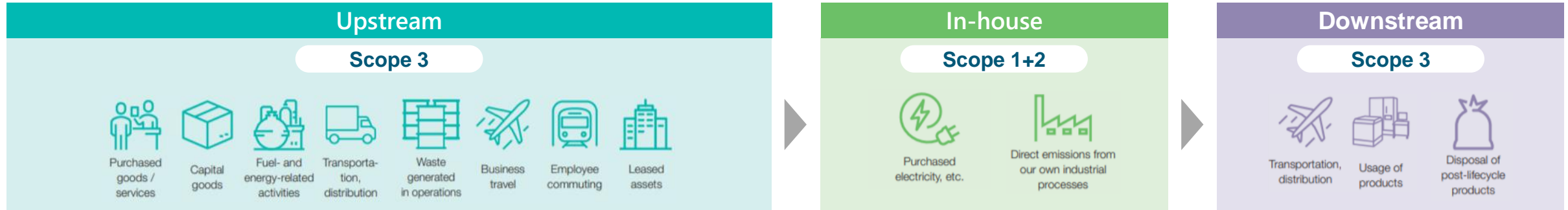
Human resource development

- 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

Climate Change Initiatives

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

CO₂ 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 CO₂-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

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



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

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.