

Securities ID code: 6859

# ESPEC CORP.

## Results Briefing for the Six Months Ended September 30, 2025

November 21, 2025

Satoshi Arata

Representative Director and President

# Financial Result for the Six Months Ended September 30, 2025

- Test demand for electronic components and devices related to AI semiconductors remained strong, and investment in satellite communications was robust in North America. Orders received reached a record high, but due to many large products and multi-unit projects with long delivery lead times, net sales were roughly unchanged year on year.
- Profitability for custom products continued to improve, but profit declined year on year due to weaker profitability in laboratory testing services caused by slowing EV demand and intensified competition in China.
- We revised our full-year forecast based on the first-half results. The dividend forecast remains unchanged, and we announced a share repurchase in line with our shareholder return policy.

	Year on Year	Comparison with Initial Forecasts
Orders Received	✓ Orders increased particularly in the Equipment Business (environmental test chambers) and the Other Business	✓ The Equipment Business (mainly environmental test chambers) and the Other Business exceeded expectations.
Net Sales	↔ In the Equipment Business, semiconductor equipment increased, but environmental test chambers decreased due to many long delivery lead-time projects. Energy device equipment also declined. In the Service Business, sales were roughly unchanged year on year because laboratory testing services did not grow.	✗ In the Equipment Business, semiconductor equipment increased, but environmental test chambers decreased due to many long delivery lead-time projects. In the Service Business, laboratory testing services mainly fell short.
Operating Profit	✗ Declined due to delayed net sales and a worsening cost-of-sales ratio.	✗ Fell short due to lower-than-expected net sales and a deteriorated cost-of-sales ratio.
Profit Attributable to Owners of Parent	✗ Decreased due to lower operating profit.	✗ Fell short due to lower-than-expected operating profit.

- Dividend forecast (Interim: ¥45, Year-end: ¥70, Annual ¥115)

# Forecasts for FY2025

( Millions of yen)

	FY2024	FY2025						
	Full Year Results	Initial Forecasts			1H Results	Forecast (revised 11/13)		
		1H	2H	Full year		2H	Full year	Year on Year
Orders Received	67,514	33,500	32,500	66,000	38,636	30,364	69,000	+2.2%
Net Sales	67,288	31,000	37,000	68,000	30,322	37,678	68,000	+1.1%
Gross Profit	23,987	11,500	13,900	25,400	10,554	13,646	24,200	+0.9%
Profit Ratio	35.6%	37.1%	37.6%	37.4%	34.8%	36.2%	35.6%	±0pt
SG&A	16,460	8,150	8,750	16,900	7,947	8,653	16,600	+0.8%
SG&A Ratio	24.5%	26.3%	23.6%	24.9%	26.2%	23.0%	24.4%	-0.1pt
Operating profit	7,526	3,350	5,150	8,500	2,607	4,993	7,600	+1.0%
Profit Ratio	11.2%	10.8%	13.9%	12.5%	8.6%	13.3%	11.2%	±0pt
Ordinary Profit	7,793	3,450	5,200	8,650	2,704	5,045	7,750	-0.6%
Profit Ratio	11.6%	11.1%	14.1%	12.7%	8.9%	13.4%	11.4%	-0.2pt
Profit Attributable to Owners of Parent	6,003	2,500	3,690	6,190	1,912	3,887	5,800	-3.4%
Profit Ratio	8.9%	8.1%	10.0%	9.1%	6.3%	10.3%	8.5%	-0.4pt
Basic Earnings per Share (yen)	274.97	114.51	169.02	283.53	87.49	177.61	265.10	-3.6%
ROE	11.0%	-	-	11.0%	-	-	10.0%	-1.0pt

# Approach to Full-Year Fiscal 2025 Forecast

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- Orders received remain strong, especially in AI semiconductors and satellite communications in North America, the target markets of the medium-term management plan, leading to an upward revision in the full-year forecast.
- Net sales were left unchanged from the initial plan, as conversion of order backlog is progressing and stronger sales of standard products with shorter delivery lead times are expected to increase revenue.
- In profit, the Equipment Business is expected to improve margins and China should recover, but laboratory testing services affected by slowing EV demand is unlikely to rebound, resulting in a downward revision.

# FY2025 1H Summary of Profits and Losses

(Millions of yen)

	FY 2024 1H Results	FY 2025 1H Forecasts	FY 2025 1H Results	Year on Year	Comparison with Forecasts
Orders Received	36,621	33,500	38,636	+5.5%	+15.3%
Net Sales	30,464	31,000	30,322	-0.5%	-2.2%
Cost of Net Sales	19,326	19,500	19,767	+2.3%	+1.4%
Cost Ratio	63.4%	62.9%	65.2%	+1.8pt	+2.3pt
Gross Profit	11,137	11,500	10,554	-5.2%	-8.2%
SG&A	7,841	8,150	7,947	+1.3%	-2.5%
Operating Profit	3,296	3,350	2,607	-20.9%	-22.2%
Profit Ratio	10.8%	10.8%	8.6%	-2.2pt	-2.2pt
Ordinary Profit	3,398	3,450	2,704	-20.4%	-21.6%
Profit Attributable to Owners of Parent	2,452	2,500	1,912	-22.0%	-23.5%

# FY2025 1H Performance by Segment

(Millions of yen)

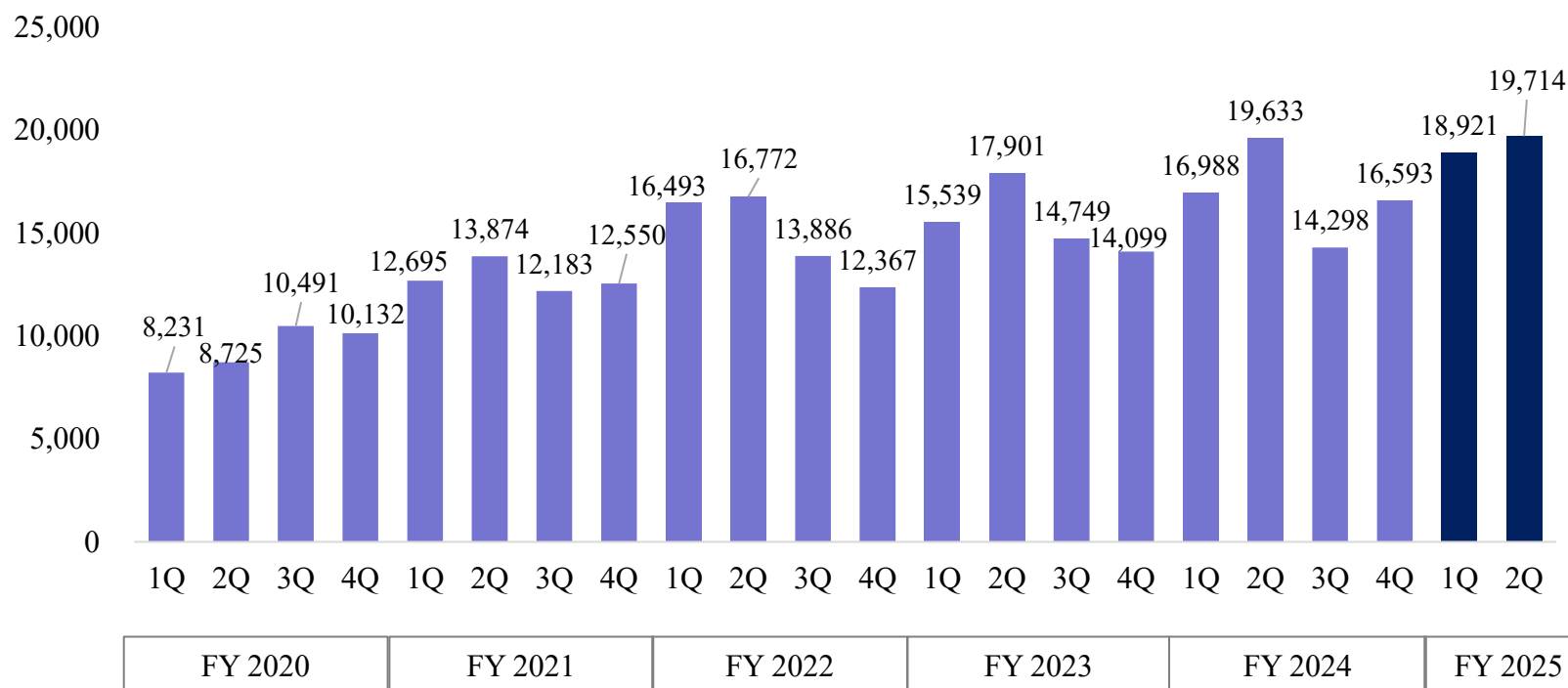
		FY 2024 1H Results	FY 2025 1H Forecasts	FY 2025 1H Results	Year on Year	Comparison with Forecasts
Equipment Business	Orders Received	31,868	28,430	33,127	+3.9%	+16.5%
	Net Sales	26,469	26,420	25,887	-2.2%	-2.0%
	Operating Profit	3,013	2,910	2,551	-15.3%	-12.3%
Service Business	Orders Received	4,176	4,520	4,224	+1.2%	-6.5%
	Net Sales	3,701	4,210	3,780	+2.1%	-10.2%
	Operating Profit	324	490	56	-82.4%	-88.4%
Other Business	Orders Received	808	800	1,500	+85.6%	87.6%
	Net Sales	521	600	880	+68.7%	46.8%
	Operating Profit	-31	-50	-2	-	-
Elimination	Orders Received	-232	-250	-215	-	-
	Net Sales	-227	-230	-226	-	-
	Operating Profit	-10	0	1	-	-
Total	Orders Received	36,621	33,500	38,636	+5.5%	+15.3%
	Net Sales	30,464	31,000	30,322	-0.5%	-2.2%
	Operating Profit	3,296	3,350	2,607	-20.9%	-22.2%

# Orders Received in FY2025 1H

Although orders received were initially expected to decline year on year, in the target markets, AI semiconductor-related demand remained strong, satellite communications expanded beyond expectations in North America, and investment in semiconductors and electronics was robust in Southeast Asia. As a result, first-half orders received reached a record high for the fifth consecutive year.

## Trends in orders received per quarter

(Millions of yen)



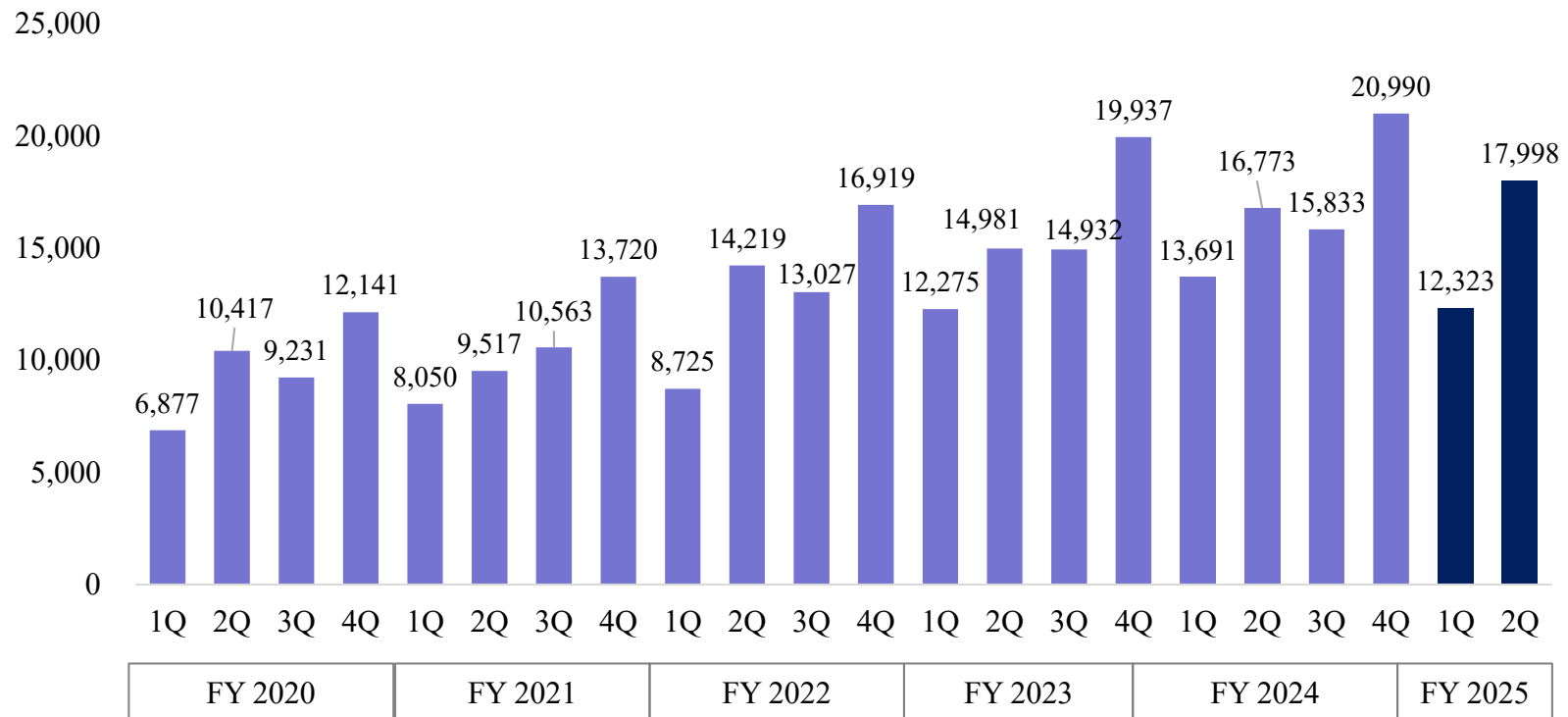
# Net Sales in FY2025 1H

Due in an increase in long delivery lead-time projects, sales were concentrated in Q2.

First-half net sales were roughly unchanged year on year.

## Trends in net sales per quarter

(Millions of yen)



# Analysis of Operating Profit Increase and Decrease Factors

In the Equipment Business, net sales were delayed due to more long delivery lead-time projects, and although profitability for custom products improved, intensified competition in China led to lower profit.

In the Service Business, laboratory testing services did not grow, worsening the cost-of-sales ratio and reducing profit.

SG&A increased due to R&D spending aimed at growth and activity costs tied to order expansion.

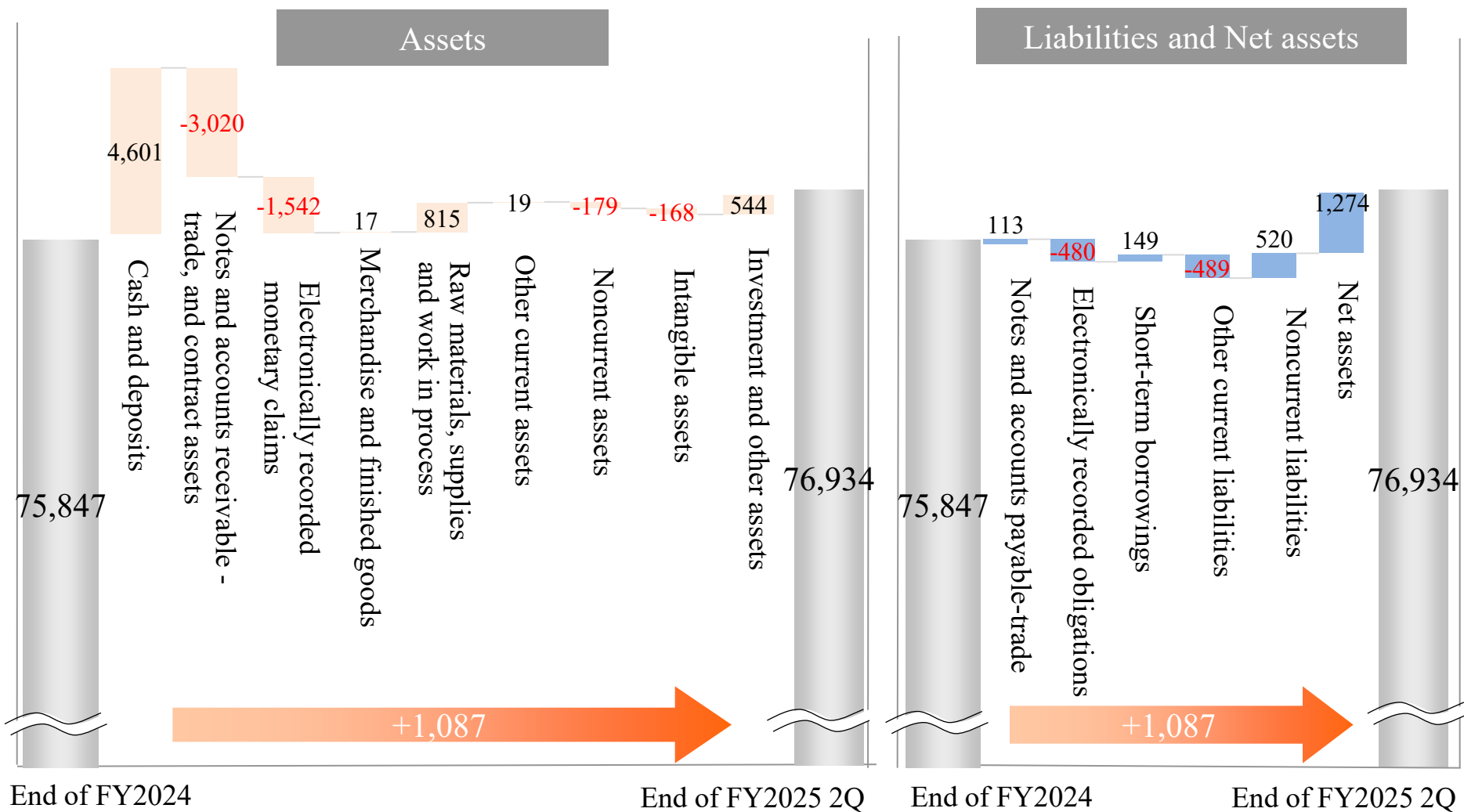


\*Totals have been calculated using the gross profit per net sales rate.

# Statement of Assets and Liabilities

As accounts receivable were collected, cash and deposits increased, and higher order backlog led to more inventories. Total assets increased by roughly ¥1.1 billion.

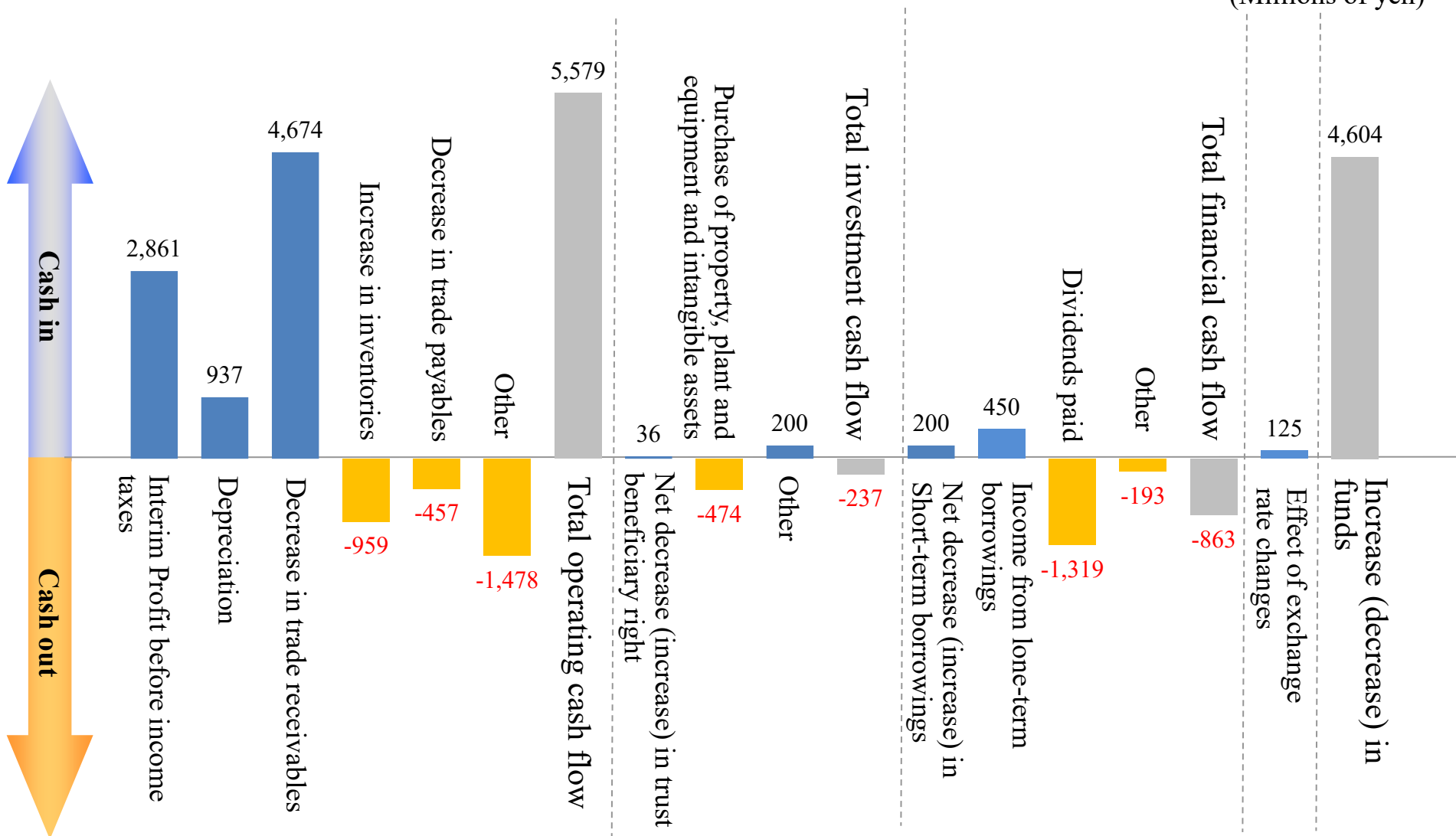
(Millions of yen)



# Statements of Cash Flows

Cash increased by approximately ¥4.6 billion due mainly to recognizing profit before income taxes and a reduction in trade receivables.

(Millions of yen)



# Equipment Business

(Millions of yen)

	FY 2024 1H Results	FY 2025 1H Forecasts	FY 2025 1H Results	Year on Year	Comparison with Forecasts
Orders Received	31,868	28,430	33,127	+3.9%	+16.5%
Net Sales	26,469	26,420	25,887	-2.2%	-2.0%
Operating Profit	3,013	2,910	2,551	-15.3%	-12.3%
Profit Ratio	11.4%	11.0%	9.9%	-1.5pt	-1.1pt

## Environmental Test Chambers

- In Japan, highly versatile standard products saw increases both in orders received and net sales year on year. Although orders received for custom products decreased compared to the previous year when EV and battery-related demand was strong, net sales increased due to solid AI semiconductor-related demand.
- Overseas, orders received increased significantly in North America and Southeast Asia compared with last year, but net sales decreased due to many long delivery lead-time projects.

## Energy Device Equipment

- Investment in EV batteries has peaked, leading to a significant year-on-year decline in both orders received and net sales.

## Semiconductor Equipment

- Orders received declined year on year, but net sales increased significantly due to recognizing revenue from a consolidated order for electronic components for AI servers.

# Service Business

(Millions of yen)

	FY 2024 1H Results	FY 2025 1H Forecasts	FY 2025 1H Results	Year on Year	Comparison with Forecasts
Orders Received	4,176	4,520	4,224	+1.2%	-6.5%
Net Sales	3,701	4,210	3,780	+2.1%	-10.2%
Operating Profit	324	490	56	-82.4%	-88.4%
Profit Ratio	8.8%	11.6%	1.5%	-7.3pt	-10.1pt

## After-Sales Service and Engineering

- Both preventive maintenance services and repair services remained strong, with increases in both orders received and net sales year on year.

## Laboratory Testing Services and Facility Rentals

- Orders received decreased year on year due to restrained investment and changes in development plans associated with slowing EV demand, while net sales were roughly unchanged.

# Other Business

(Millions of yen)

	FY 2024 1H Results	FY 2025 1H Forecasts	FY 2025 1H Results	Year on Year	Comparison with Forecasts
Orders Received	808	800	1,500	+85.6%	+87.6%
Net Sales	521	600	880	+68.7%	+46.8%
Operating Profit	-31	-50	-2		
Profit Ratio	-5.9%	-8.3%	-0.3%	-	-

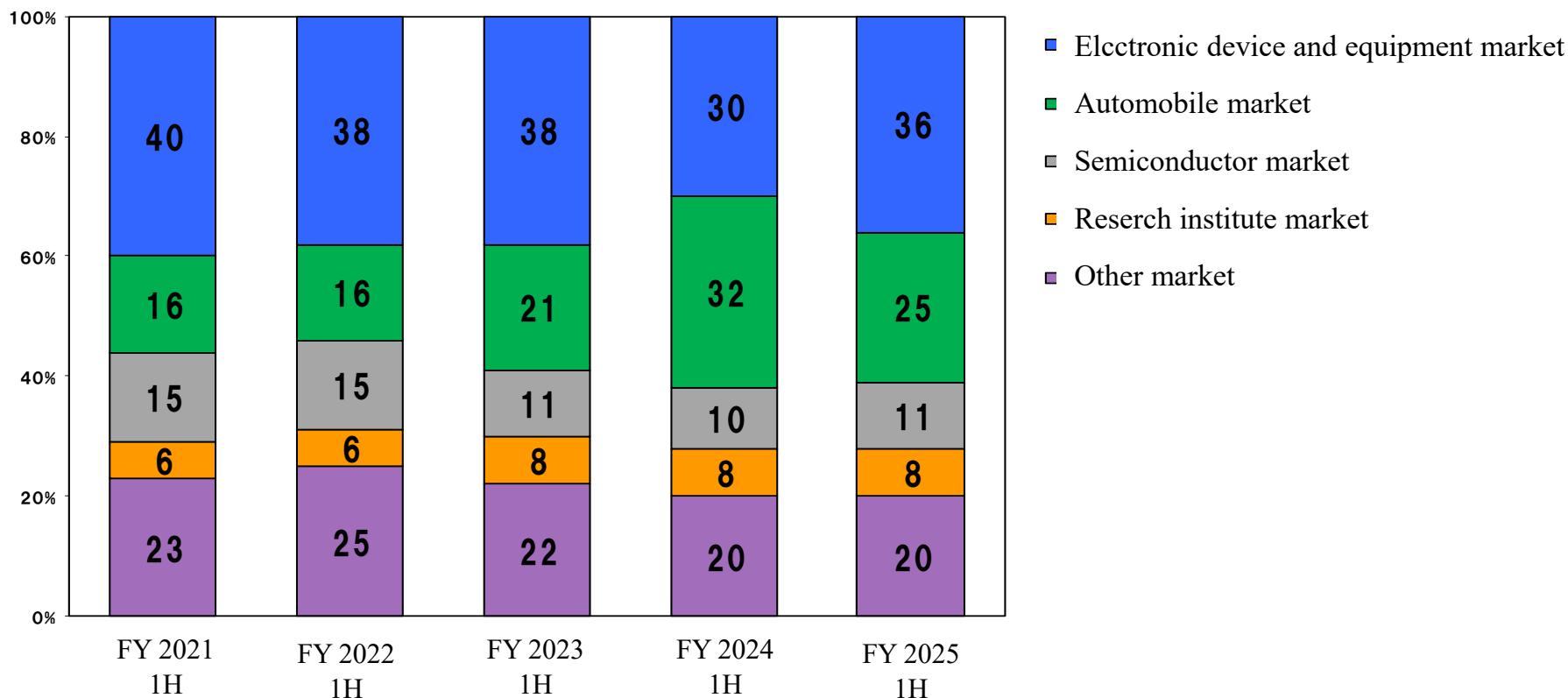
## Environmental Conservation, Plant Production Systems

- We secured a large plant factory project, and plant research equipment and forest development projects also remained strong.

# Sales by Market

In the electronic device and equipment market, and semiconductor market, testing demand related to AI semiconductors increased, raising the sales share. In the automobile market, investment related to EVs and batteries has paused, resulting in a lower sales share.

## Non-Consolidated (Equipment Business)



# Sales by Region

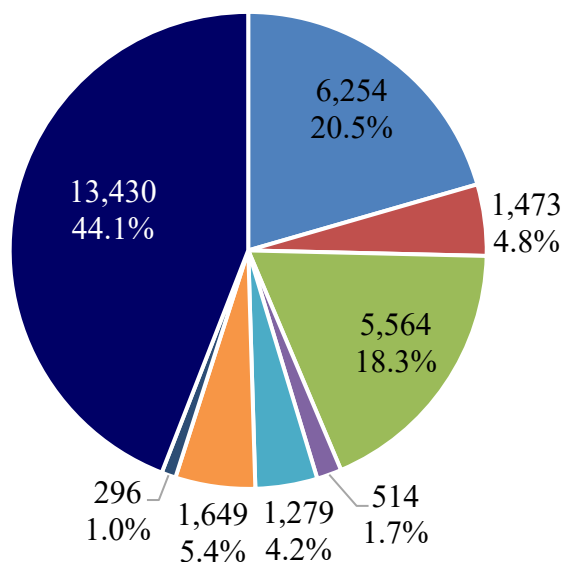
Net sales increased in Japan, Southeast Asia and India, Taiwan, and South Korea.

In North America, despite strong orders, net sales declined due to many long delivery lead-time projects.

In China, net sales were roughly unchanged.

1H FY 2024

Overseas sales ratio: 55.9%

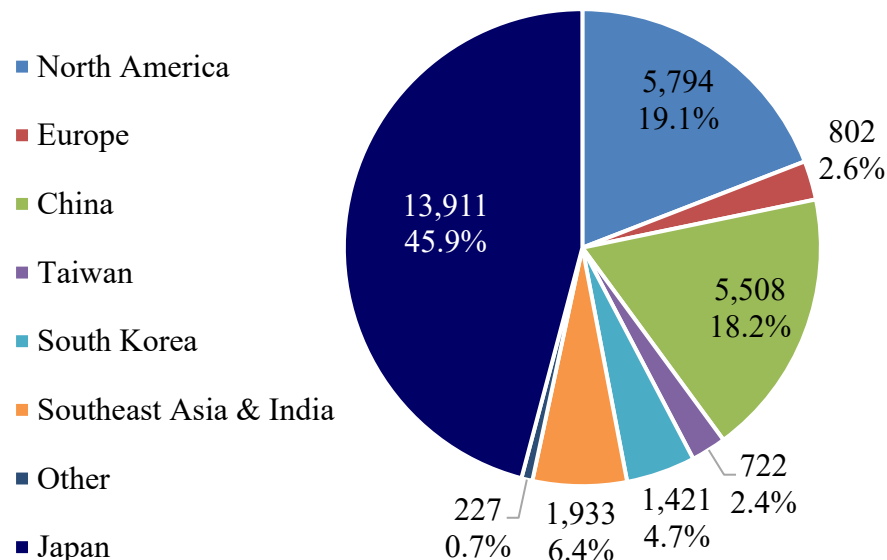


Total: 30,464 million yen

Overseas sales: 17,033 million yen

1H FY 2025

Overseas sales ratio: 54.1%



Total: 30,322 million yen

Overseas sales: 16,410 million yen

- In the first year of the medium-term management plan PROGRESSIVE PLUS 2027 (FY2025 to FY2027), market development in target fields, Formulation of Investment plan for more efficient manufacturing, and new product development are progressing as planned.
- In line with our shareholder return policy, we announced a share repurchase on November 13.
- Through steady execution of our growth strategy and continued strengthening of profitability initiatives, we aim to achieve our basic policy of establishing a lean, sustainable, and highly profitable earnings model.

■ Medium-term target for FY2027

Net sales: ¥70.0 billion

Operating profit: ¥10.5 billion

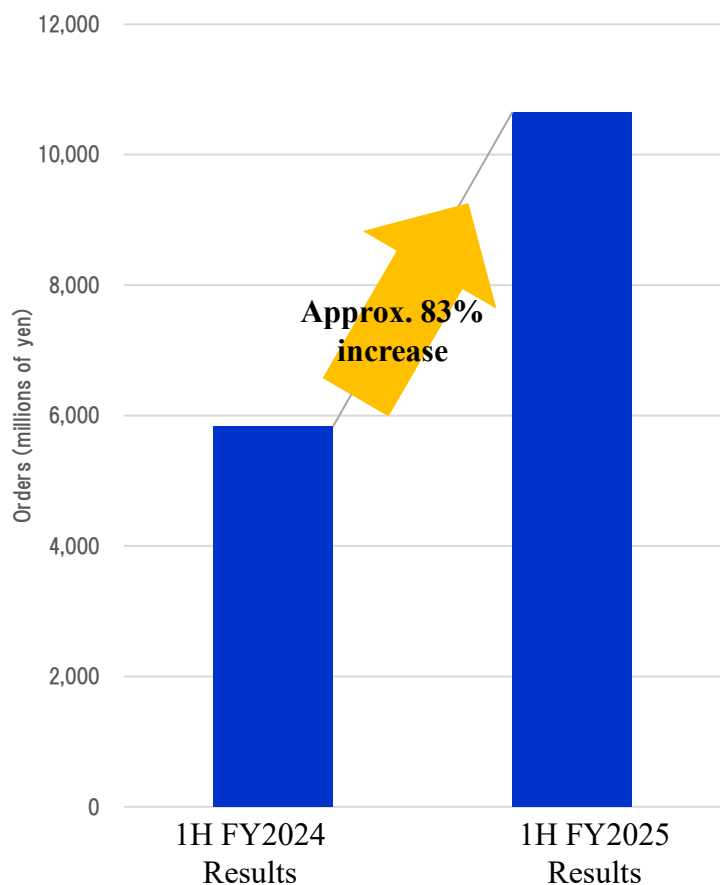
Operating profit ratio: 15.0%

Profit: ¥7.6 billion

ROE: 12.0% or more

# Test Demand and Market Development in Medium-Term Management Plan Target Markets

Orders received in target markets (AI semiconductors, autonomous driving services, satellite communications), increased approximately 83% year on year. AI semiconductor performed well in Japan and Southeast Asia, while satellite communications expanded in North America.



Orders Received in Target Markets

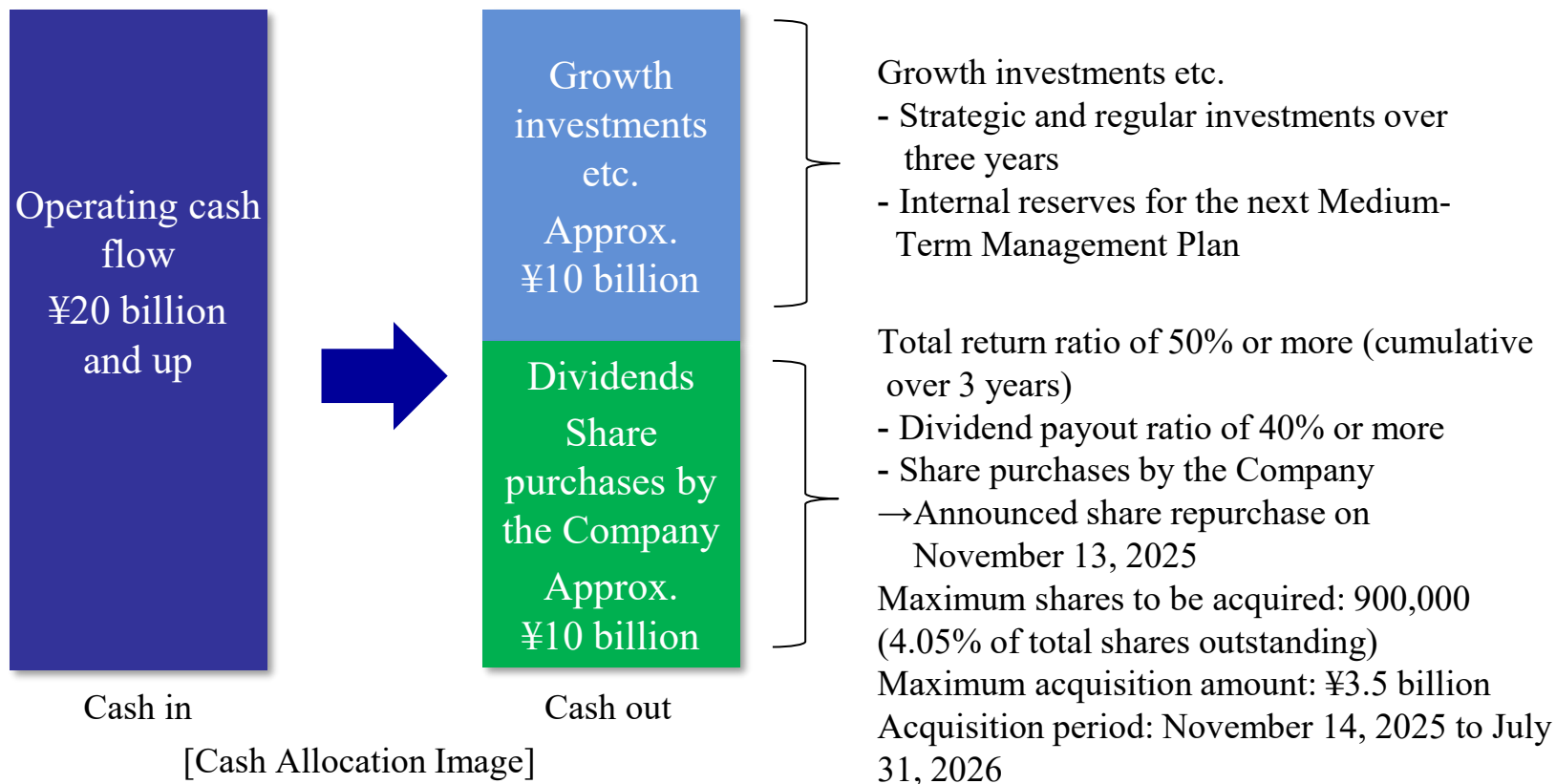
Market	Test Targets	Products Provided
AI semiconductors	AI servers Semiconductors Electronic components and materials HDDs and SSDs	High-power temperature & humidity chambers Rapid-rate thermal cycle chambers Temperature & humidity chambers Thermal shock chambers Highly accelerated stress test systems HDD inspection systems Measurement systems
Autonomous driving	Integrated ECUs Sensing devices	High-power temperature & humidity chambers Temperature & humidity chambers Bench-top type temperature (& humidity) chambers Thermal shock chambers
Satellite communications	Small satellites Satellite on-board components	HALT test systems High-power temperature & humidity chambers Thermal shock chambers Constant-pressure temperature & humidity chambers

# Financial Capital Strategy (FY2025~FY2027)

## Cash Allocation Policy

Proactively allocate cash generated over three years to growth investments and shareholder returns

- Implement shareholder returns with a total return ratio of 50% (cumulative over 3 years) or more through dividends and share purchases by the Company



# Shareholder Return Policy and FY2025 Dividend Forecast

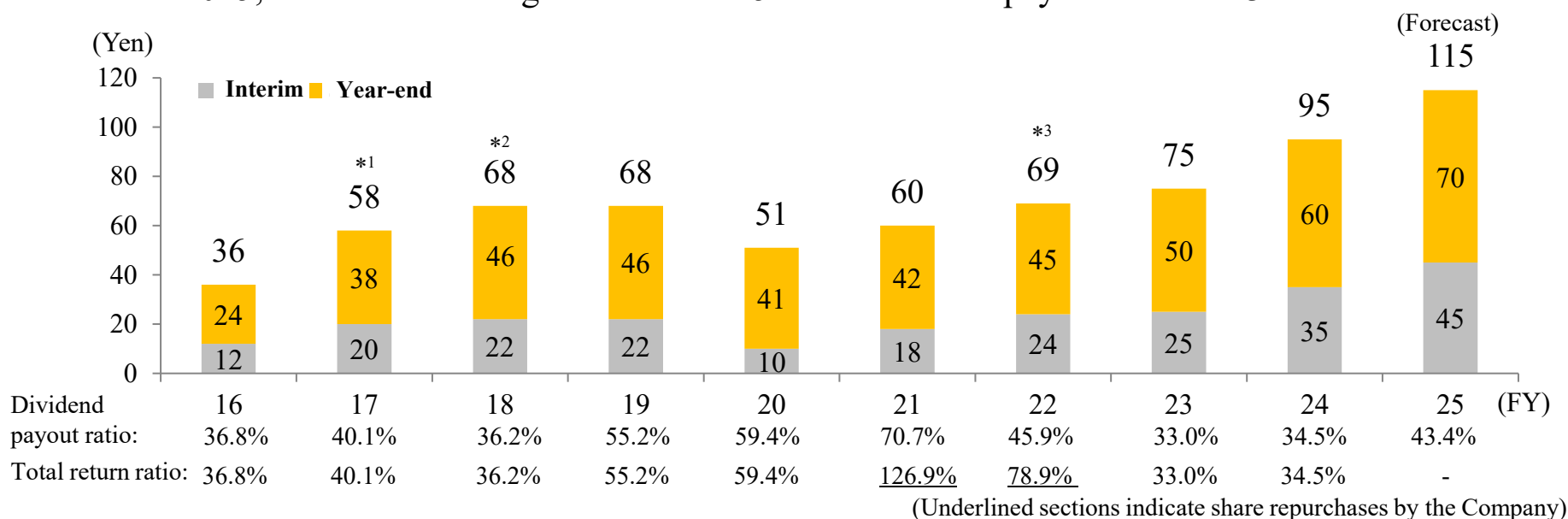
## Shareholder Return Policy

Set the consolidated dividend payout ratio at 40% or more, and flexibly carry out acquisition of treasury shares.

During the period of the Medium-Term Management Plan PROGRESSIVE PLUS 2027 (FY2025–2027), the total return ratio cumulative over the three-year period will be 50% or more, and no dividend reductions will be made.

## Dividend per Share and Dividend Payout Ratio/Total Return Ratio

For FY2025, we are forecasting an annual ¥115 and a dividend payout ratio of 43.4%.



\*1. Includes a dividend of ¥2 (interim dividend of ¥1 and year-end dividend of ¥1) to commemorate the 70th anniversary of our foundation in FY2017.

\*2. FY2018 was an irregular 15-month fiscal period for overseas consolidated subsidiaries. The dividend payout ratio for a 12-month period is 39% (reference).

\*3. Includes a dividend of ¥4 (interim dividend of ¥2 and year-end dividend of ¥2) to commemorate the 75th anniversary of our foundation in FY2022.

# FY2025 Recognition of the Operating Environment

We aim to secure orders globally, focusing on AI semiconductors and satellite communications, the target markets of the medium-term management plan.

Equipment Business	Environmental Test Chambers	<p>Japan: Investment for EV and battery use (mainly production-related) is declining, while AI semiconductor-related investment remains firm.</p> <p>China: Automotive-related demand remains sluggish, while semiconductors and electronics remain firm.</p> <p>ASEAN: Semiconductors and electronics are performing well.</p> <p>India: Semiconductor-related demand is strong, and four-wheel and two-wheel automotive markets are also solid.</p> <p>North America: Strong demand, centered on satellite communications.</p> <p>Europe: Sluggish due to economic slowdown.</p>
	Energy Device Equipment	Sluggish due to EV battery-related investment having peaked.
	Semiconductor Equipment	Demand for memory remains soft, while burn-in systems and measurement systems for AI servers remain strong.
Service Business	After-Sales Service Laboratory Testing Services and Facility Rentals	<p>After-Sales Support: Strong performance driven by expansion of maintenance contracts.</p> <p>Laboratory Testing Services: EV battery-related testing has leveled off, while environmental testing for electrification and autonomous driving modules outside the battery field remains firm.</p>
Other Business	Environmental Conservation Plant Production Systems	Plant cultivation equipment, including plant factories and plant research systems, remains firm.

# Segment Financial Forecasts

(Millions of yen)

		FY 2024	FY 2025	FY 2025			
		Full Year Results	Full Year Initial Forecasts	1H Results	Forecasts (revised 11/13)		
					2H	Full Year	Year on Year
Equipment Business	Orders-Received	57,283	55,500	33,127	25,513	58,640	+2.4%
	Net sales	57,507	57,600	25,887	31,672	57,560	+0.1%
	Operating profit	6,610	7,340	2,551	4,428	6,980	+5.6%
	Profit Ratio	11.5%	12.7%	9.9%	14.0%	12.1%	+0.6pt
Service Business	Orders-Received	8,532	9,200	4,224	4,295	8,520	-0.2%
	Net sales	8,425	9,200	3,780	4,859	8,640	+2.5%
	Operating profit	793	1,080	56	443	500	-37.0%
	Profit Ratio	9.4%	11.7%	1.5%	9.1%	5.8%	-3.6pt
Other Business	Orders-Received	2,170	1,800	1,500	840	2,340	+7.8%
	Net sales	1,758	1,700	880	1,419	2,300	+30.8%
	Operating profit	126	80	-2	123	120	-5.5%
	Profit Ratio	7.2%	4.7%	-0.3%	8.6%	5.2%	-2.0pt
Elimination	Orders-Received	-472	-500	-215	-285	-500	-
	Net sales	-403	-500	-226	-273	-500	-
	Operating profit	-4	0	1	-2	0	-
Total	Orders-Received	67,514	66,000	38,636	30,364	69,000	+2.2%
	Net sales	67,288	68,000	30,322	37,678	68,000	+1.1%
	Operating profit	7,526	8,500	2,607	4,993	7,600	+1.0%
	Profit Ratio	11.2%	12.5%	8.6%	13.3%	11.2%	±0pt

# FY2025 Investment Plans

The medium-term management plan allocations remain unchanged, with ¥9.5 billion for growth investments and ¥4.8 billion for R&D over the three-year period. (Millions of yen)

	FY2024	FY2025 Forecasts			
	Full Year Results	1H Results	Forecast (no revisions)		
			2H	Full Year	Year on Year
Capital Expenditures	3,690	719	1,871	2,590	-29.8%
Depreciation	1,716	927	1,063	1,990	+15.9%
R&D Expenses	1,343	730	1,100	1,830	+36.2%

## FY2025

### Main investments

- Enhancement of production facilities at the Fukuchiyama Plant
- Increased production capacity at domestic subsidiaries (Office relocation)

### Main R&D activities

- Expand product lineup in advanced technology fields (Model changes and additions for mainstay products)
- Expand environmentally friendly products such as low-GWP refrigerant

# FY2025 Assumed Exchange Rate

## Assumed Exchange Rate

	FY2024		FY2025	
	1H Results	Full Year Results	1H Results	Full Year Assumption
U.S. dollar (yen)	152.77	152.62	146.03	145
Euro (yen)	166.05	163.87	168.05	160
Yuan (yen)	21.16	21.11	20.29	20

## FY2025 exchange rate sensitivity

(Millions of yen)

	Net sales	Operating profit
U.S. dollar	+74	+11
Euro	+15	+10
Yuan	+51	+9

\* Impact of a 1-yen depreciation of the Japanese yen (0.1-yen for the Chinese yuan)

# Main Initiatives in FY2025

## Equipment Business

- Converting order backlog into sales, strengthening sales of standard products, and continuing to improve profitability for custom products.
- Development and expanded sales of high value-added products that meet testing needs in target markets

## Service Business

After-sales service: Reviewing service fees and reducing costs through improved utilization.

Laboratory testing services: Expanding orders for electrification and autonomous driving modules, as well as aerospace-related equipment.

## Area Strategy

- Japan: Strengthen sales activities in the AI semiconductor and autonomous driving fields, acquisition of replacement demand
- U.S.: Strengthening sales in satellite communications and increasing production capacity to translate strong orders into revenue.
- China: Improving profit levels through competitive product launches and stronger sales efforts in semiconductor and communications fields.

# Main ESG Initiatives in FY2025

## ■ E for Environment

- Advancing the 8<sup>th</sup> Mid-Term Plan on the Environment (FY2022 to FY2025)
- Global warming measures:
  - Transitioning to low-GWP refrigerants and reducing CO<sub>2</sub> emissions from manufacturing and other operations.
- Biodiversity conservation activities:
  - Contributing through environmental preservation projects and promoting conservation initiatives such as the ESPEC's 50-Year Forest.
  - Disclosure of natural capital-related information based on TNFD recommendations.

## ■ S for Society

- Advancing human capital strategies and implementing a new personnel evaluation system.
- Strengthening internal communication, establishing a health-management declaration and policy, and conducting engagement surveys.
- Developing women leaders (female manager ratio at 9.8% in April 2025) and promoting and supporting stable employment of persons with disabilities.
- Introduction of a trust-based employee stock ownership incentive plan.

## ■ G for Governance

- Rebuilding the Business Continuity Plan (BCP).
- Establishing a human rights policy.

# TOPICS 1

## New Products for the AI Server Markets

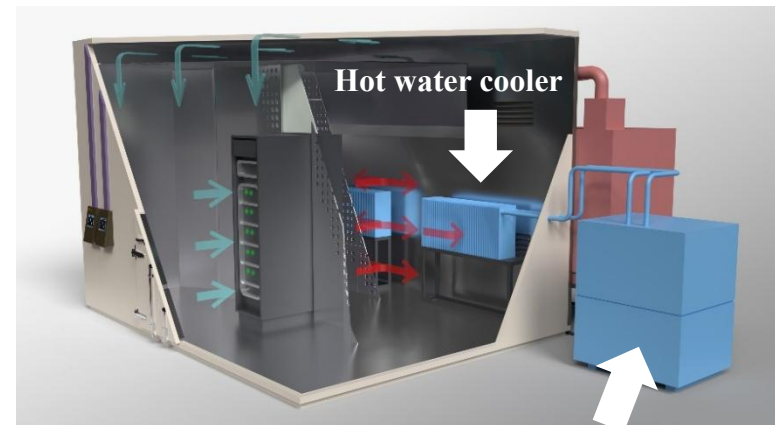
### ■ Walk-in Temperature & Humidity Chamber for High Heat-generation Loads

- In October 2025, we launched two models designed to handle high heat-generation loads for AI server reliability testing.
- Our proprietary control system provides precise temperature and humidity control to support heat-generation loads of 30 kW and 60 kW generated by servers.
- Enables testing compliant with ASHRAE standards used for server reliability evaluation.



Walk-In Temperature & Humidity Chamber

<A look inside the test area>



Chiller for hot water cooler

By combining a conventional air-conditioning system with a hot-water cooler, the system handles heat-generation loads over 60 kW even in humid conditions.

# TOPICS 2

## New Products for AI Semiconductor and Autonomous Driving Markets

### Highly Accelerated Stress Test System (HAST Chamber) EHS-222M-L

- In October 2025, we added the EHS-222M-L model, which supports testing of large substrates, to the Highly Accelerated Stress Test System (HAST Chamber) lineup.
- Capable of evaluating a large number of samples in a single test.
- Contributes to shorter development cycles and higher reliability for electronic components.



Highly Accelerated Stress Test System  
EHS-222M-L

### Rapid-Rate Thermal Cycle Chamber TCC-151W-20

- In April 2025, a high-performance model capable of controlling specimen temperature at 20 K/min was added to the lineup of rapid-rate thermal cycle chambers
- Complies with international standards such as semiconductor package reliability test standards and standards for electronics and automotive markets, and comes standard with low-GWP\* refrigerant “R-449A”



Rapid-Rate Thermal Cycle Chamber TCC-151W-20

\* Metric for expressing the warming potential of greenhouse gases relative to carbon dioxide. The smaller the value, the lower the environmental impact.

## Start of “Aichi Next-Generation Mobility Test Lab” service Responding to testing demand for automotive batteries and EV/automation modules

### ■ Aichi xEV Battery Safety Test & Certification Center

- Opened in February 2025 as one of Japan’s largest dedicated automotive battery testing facilities
- Equipped with state-of-the-art testing systems to support larger and higher-capacity automotive batteries
- Supports various testing standards such as the UN ECE-R100 regulation for safety testing



Aichi xEV Battery Safety Test & Certification Center

### ■ Toyota Test Center

- Expanded functions of the Toyota Testing Center, the Company’s largest integrated test center (service began in April 2025)
- Supports the larger size of test samples such as e-Axles, PCUs, and ECUs
- Newly enhanced services to recreate usage environments for EV/automation modules under operating conditions for evaluation and measurement



Toyota Test Center

# External Recognition

## ■ ESG-Related Evaluations

- Included in the ESG index “FTSE Blossom Japan Sector Relative Index”  
Included in the ESG index “S&P/JPX Carbon Efficient Index”
- Rated “B” score for the fifth consecutive year in the CDP Climate Change Survey, “B-” score for Water Security  
Selected as Supplier Engagement Leader for three consecutive years, the Top Rank in the Supplier Engagement Ratings
- Selected for the second consecutive year as an Asia-Pacific Climate Leader by the Financial Times in the UK and German data provider Statista
- Received a 3.5-star rating in the NIKKEI Sustainable Management Survey, SDGs Edition
- Received a 3-star rating in the NIKKEI Sustainable Management Survey, Smart Work Edition
- The Kobe R&D Center received the Minister of Economy, Trade and Industry’s Award as the National Award for Greenery Factory
- Received the Platinum Kurumin certification from the Minister of Health, Labour and Welfare as a company supporting child-raising.
- Earned the “Three Star Certification” under the “Osaka City Leading Company in Women’s Participation” and also certified as a “Company Promoting Ikumen”

## ■ IR Website Evaluations

- Selected as a Commendation Award of the Internet IR Award of Daiwa IR
- Selected as a “GRADE AAA” company website in the Nikko Investor Relations’ All-Japanese Listed Companies’ Website Ranking
- Awarded a Bronze Prize in the Gomez IR Website Ranking (17<sup>th</sup> in its industry)
- Awarded as an excellent company in the Gomez ESG Website Ranking



FTSE Blossom  
Japan Sector  
Relative Index



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Securities ID code:6859

Reference

# Company Presentation and Business Overview

ESPEC CORP.  
November 21, 2025

# Company Profile

## Industry-leading manufacturer of environmental test chambers

Name	ESPEC CORP.
Head Office	3-5-6, Tenjinbashi, Kita-ku, Osaka
Representative	Representative Director and President Satoshi Arata
Established	July 25, 1947
Incorporated	January 13, 1954
Paid-up Capital	¥6,895 million
Issued shares	23,781,394 Shares
Employees	1,860 (consolidated)
Main Business	Manufacture and Sales of Environmental Test Chambers, Energy Device Equipment, Semiconductor Equipment and Plant Factory. After-sales Service, Laboratory Testing Services and others.



Head Office

Share of Environmental  
Test Chambers

Over 30% worldwide, Over 60% domestic

\* Market shares are ESPEC estimates

(As of March 31, 2025)

# Global Network

Consolidated Subsidiaries  
13 companies  
(Global 9 companies,  
Domestic 4 companies)

Global Network  
50 locations  
44 companies

Business Facilities in Japan:  
16  
Domestic Agencies in  
Japan: 46

## EUROPE

● ESPEC EUROPE GmbH  
- ESPEC IKLİM KABINLERİ  
SATIS VE MUHENDISLIK  
LIMITED SİRKETİ

## U.S.A.

● ESPEC NORTH AMERICA, INC \*

## ASIA

● SHANGHAI ESPEC ENVIRONMENTAL  
EQUIPMENT CORP. \*  
● ESPEC ENVIRONMENTAL EQUIPMENT  
(SHANGHAI) CO., LTD.  
● ESPEC TEST EQUIPMENT (GUANGDONG) CO., LTD. \*  
● ESPEC TEST TECHNOLOGY (SHANGHAI) CO., LTD.  
● ESPEC (CHINA) LIMITED  
● ESPEC KOREA CORP. \*  
● ESPEC ENGINEERING (THAILAND) CO., LTD  
- ESPEC ENGINEERING VIETNAM CO., LTD.

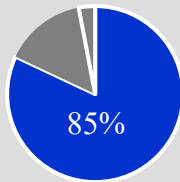
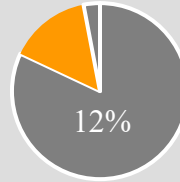
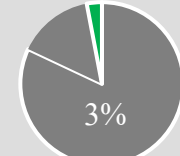
## JAPAN

ESPEC CORP. \*  
● ESPEC ASSIST CORP.  
● ESPEC MIC CORP.  
● ESPEC THERMAL TECH  
SYSTEM CORP. \*  
● COSMOPIA HIGHTECH CORP. \*

● : Consolidated Subsidiaries  
- : Non-consolidated Subsidiaries

\*Denotes company with production functions.

# Summary of ESPEC Business (Per Market / Use)

		Main Products	Market	Use	Sales Composition (FY2024)
Equipment Business	Environmental Test Chambers	<ul style="list-style-type: none"><li>•Temperature &amp; humidity chamber</li><li>•Thermal shock chamber</li><li>•Bench-top type temperature &amp; humidity chamber</li><li>•HAST chamber</li><li>•Walk-in type temperature &amp; humidity chamber</li><li>•Combined temperature &amp; humidity chamber</li><li>•HALT &amp; HASS test chamber</li><li>•FPD equipment</li></ul>	<ul style="list-style-type: none"><li>•Electronic component and equipment market</li><li>•Automobile market</li><li>•Semiconductor market</li><li>•Pharmaceuticals and Foods market</li><li>•LCD and Organic Electro-Luminescence market</li></ul>	<ul style="list-style-type: none"><li>•For R &amp; D</li><li>•For credibility and evaluation</li><li>•For production and inspection</li></ul>	
	Energy Device Equipment	<ul style="list-style-type: none"><li>•LIB charge-discharge cycle evaluation equipment</li><li>•LIB safety evaluation system</li><li>•Fuel cells evaluation system</li></ul>	<ul style="list-style-type: none"><li>•Next generation automobile market</li><li>•Secondary batteries market</li><li>•Fuel cells market</li></ul>	<ul style="list-style-type: none"><li>•For R &amp; D</li><li>•For credibility and evaluation</li><li>•For safety evaluation</li><li>•For production</li></ul>	
	Semiconductor Equipment	<ul style="list-style-type: none"><li>•Burn-in system</li><li>•Semiconductor evaluation system</li></ul>	<ul style="list-style-type: none"><li>•Semiconductor market</li><li>•Automobile market</li></ul>	<ul style="list-style-type: none"><li>•For production and inspection</li><li>•For development and evaluation</li></ul>	
Service Business	After-sales Service and Engineering	<ul style="list-style-type: none"><li>•After-sales service</li><li>•Construction around equipment</li></ul>	<ul style="list-style-type: none"><li>•Electronic component and equipment market</li><li>•Automobile market</li><li>•Semiconductor market</li></ul>	—	
	Laboratory Testing Services and Facility Rentals	<ul style="list-style-type: none"><li>•Laboratory testing services</li><li>•Equipment rental</li></ul> <div>•Resale</div> <div>•Calibration</div>		<ul style="list-style-type: none"><li>•For R &amp; D</li><li>•For credibility and evaluation</li></ul>	
Other Business	Environmental Conservation	Reforestation (Tree planting), Waterfront biotope restoration, Urban greening			
	Plant Production Systems	Plant factory, Equipment for growing plants			

# History of Environmental Test

## What is Environmental Test

Test to analyze and evaluate effects of environmental factors such as temperature, humidity, pressure, and vibration on various industrial products like electronic components in order to ensure product quality.

1950s

The environmental test was JIS-standardized in Japan for consumer products.



1970s–1990s

“Reliability” and “quality control” became important issues in product development. Demand increased dramatically due to a rapid shift toward computerization and the use of electronic components.



Present

Demand is expanding in the development fields of AI/IoT and next-generation automobiles against the backdrop of digitalization and decarbonization.



### 1961 Japan's First Environmental Test Chamber



Low Temperature & Humidity Chamber  
"Lucifer"

### Worldwide Market Share No.1



Over 60%  
domestic

Over 30%  
worldwide

\* Market shares are ESPEC estimates

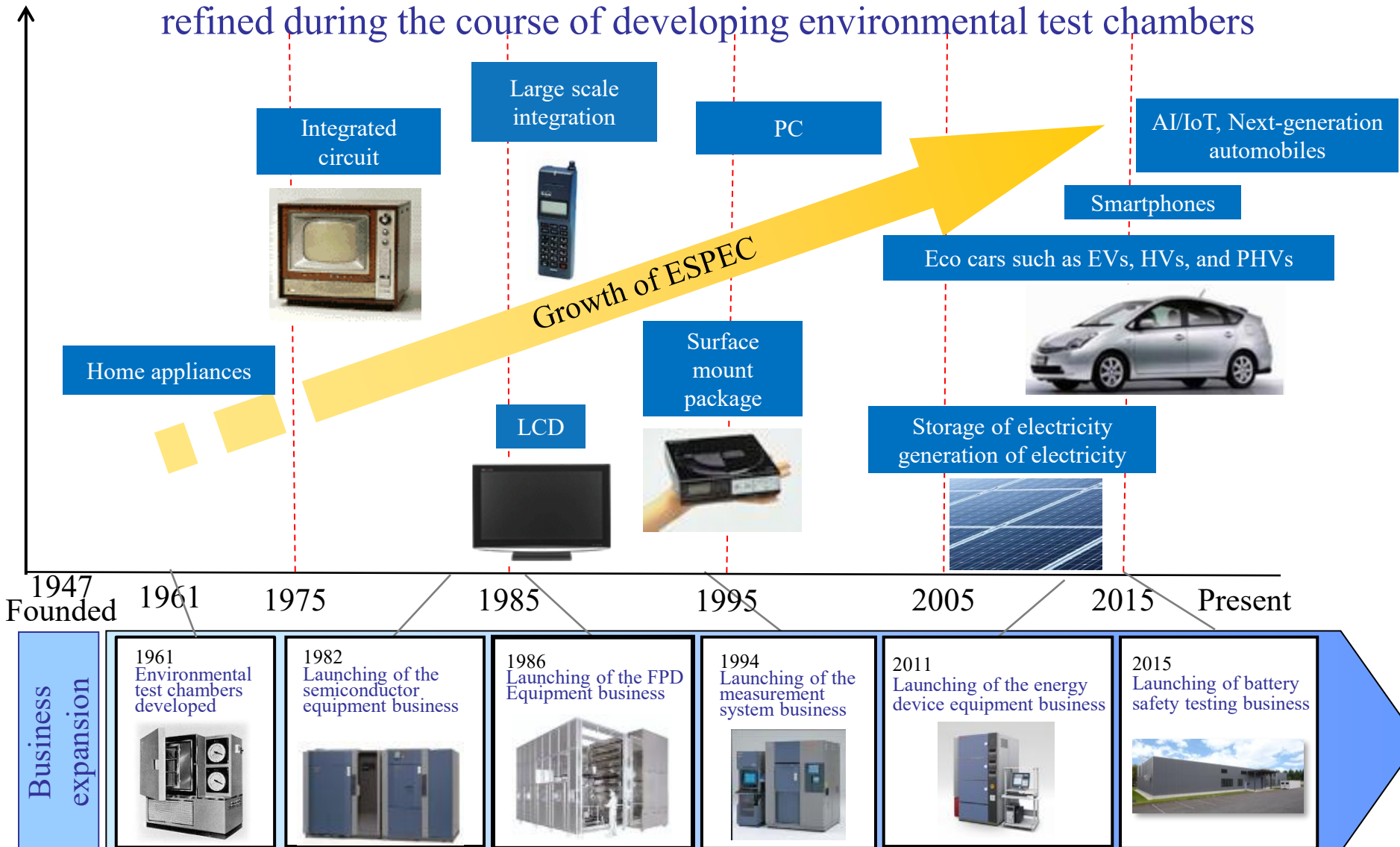
Consecutively selected as a winner of  
Ministry of Economy, Trade and Industry (METI)  
“Global Niche Top Companies Selection 100”  
(FY 2013, FY 2020)



Temperature & Humidity Chamber  
“Platinous J series”

# Transition in Business

Expanding business based on the “environmental creation technology” refined during the course of developing environmental test chambers



# ESPEC's Strengths

## Top Market Share

Share of Environmental Test Chambers:

Over 30% worldwide, Over 60% domestic (ESPEC estimates)

First in Japan to develop environmental test chambers, rapidly established a brand in Japan and overseas and have held the top market share for many years

## Technological Capabilities Product and Service Capabilities

- Developed a variety of products with high quality and meeting customer requirements
- Production technology capabilities that enable high-mix, low-volume production
- Total solutions for environmental tests, including products, laboratory testing services and technical support, and after-sales service capabilities

## Global Structure

Provide products globally that comply with the needs of respective countries through an extensive global network

- Consolidated subsidiaries: 13 (9 overseas, 4 domestic)
- Overseas production bases: North America 1 company,  
China 2 companies, South Korea 1 company
- Overseas network: 50 locations (countries or territories), 44 companies

# Equipment Business: Usage Case with Environmental Test Chambers

Ensure reliability of new technologies and new products  
by repeatedly testing each component, module and finished product

In-vehicle parts/electrical components

- ECU
- Inverter
- Converter
- Sensor
- Motor
- etc.






Automotive Batteries

- Lithium-ion battery
- All solid-state battery
- etc.

Representative Examples for  
Environmental Testing

## Electric Vehicle (EV) image

Device	Process/Test Condition		Our Products
<b>【Power Device】</b> 	Inspection	■ Thermal shock test: $-40^{\circ}\text{C} \rightleftharpoons +125^{\circ}\text{C}$	Thermal shock chamber
		■ High temperature exposure: $+175^{\circ}\text{C}$ , $+85^{\circ}\text{C}$	(Compact size) Oven
		■ Burn-in test	Burn-in chamber
<b>【In-vehicle Sensor】</b> 	Inspection	■ Temperature cycle test of printed circuit board: $-40^{\circ}\text{C} \rightleftharpoons +110^{\circ}\text{C}$	Temperature & humidity chamber (Platinous) / Oven
		■ Temperature characteristic test after soldering: Linear change between $-30^{\circ}\text{C}$ and $+85^{\circ}\text{C}$	Burn-in chamber, Rapid-rate thermal cycle chamber
	Evaluation	■ Thermal shock test: $-30^{\circ}\text{C} \rightleftharpoons \text{RT} \rightleftharpoons +80^{\circ}\text{C}$ , $-55^{\circ}\text{C} \rightleftharpoons +155^{\circ}\text{C}$	Thermal shock chamber
<b>【CCD/CMOS】</b> 	Production	■ Diffusion Test: $+150^{\circ}\text{C}$	Compact size Oven
		■ Drying after cleaning: $+85^{\circ}\text{C}$	Clean Oven
	Evaluation	■ Screening: $+85^{\circ}\text{C}$	Temperature chamber (Platinous) / Burn-in chamber
	Inspection	■ Temperature and humidity test: $+85^{\circ}\text{C} / +85\%\text{rh}$ , $+60^{\circ}\text{C} / 90\%\text{rh}$	Temperature & humidity chamber (Platinous)
		■ Acceleration test: $+120^{\circ}\text{C} / 100\%\text{rh}$	HAST chamber
		■ Thermal shock test: $-40^{\circ}\text{C} \rightleftharpoons +125^{\circ}\text{C}$ , $-20^{\circ}\text{C} \rightleftharpoons +85^{\circ}\text{C}$	Thermal shock chamber

# Equipment Business: Main New Products

Release Date	Name of product	Features
Oct. 2025	Walk-in Temperature & Humidity Chamber for High Heat-generation Loads	<ul style="list-style-type: none"> <li>-Handling high heat-generation loads for AI server reliability testing.</li> <li>-Enables testing compliant with ASHRAE standards used for server reliability evaluation.</li> </ul>
Oct. 2025	Highly Accelerated Stress Test System (HAST Chamber) Model supporting large substrates	<ul style="list-style-type: none"> <li>-Meeting testing demands in the AI semiconductor and autonomous driving markets.</li> <li>-Capable of evaluating a large number of samples in a single test, and improving testing efficiency</li> </ul>
Apr. 2025	Ultra-Low-Temperature Shock Freezer	<ul style="list-style-type: none"> <li>-Preservation of perishable food freshness through rapid freezing to an ultra-low temperature of -70° C</li> <li>-Automatically completes the entire process of food freezing, storing, defrosting and reheating</li> </ul>
Apr. 2025	Rapid-Rate Thermal Cycle Chamber High-Performance Model	<ul style="list-style-type: none"> <li>-Capable of specimen temperature ramp control at a rate of 20K/min</li> <li>-Complies with semiconductor package reliability test standards and international standards for electronics and automotive markets, among others</li> </ul>
Jan. 2025	Expansion of Commissioned Measurement Services (Thermal Dependent Warpage Measurement Service / Thermal Image Analysis Service )	<ul style="list-style-type: none"> <li>-Thermal Dependent Warpage Measurement System: Supports reflow oven temperature environment (up to 260°C) and large substrate sizes</li> <li>-Thermal Image Analysis System: High-speed, high-precision thermal image analysis</li> </ul>
Nov. 2024	Low Temperature (& Humidity) Chamber Featuring R-449A low GWP* refrigerant Platinous J Series ECO Type	<ul style="list-style-type: none"> <li>-Offers up to a 70% reduction in power consumption compared to current models through proprietary refrigeration technology.</li> </ul>
Oct. 2024	Rapid-Rate Thermal Cycle Chamber Premium Excellent Series (EC-28PXHH) Featuring R-473A, R449A Low GWP* Refrigerant	<ul style="list-style-type: none"> <li>-Launched by COSMOPIA HIGHTECH CORP., a group company.</li> <li>-Capable of rapid temperature change testing in compliance with international testing standards.</li> </ul>

\*GWP:Global Warming Potential. The smaller the value, the less environmental impact.

# Equipment Business: New Product Introduction 1

( Released in Nov. 2024 )

## **Launched low temperature (& humidity) chambers Platinous J Series ECO Type with low-GWP refrigerant**

- In November 2024, launched the ECO Type in the Platinous J Series, the global standard model for environmental test chambers
- Proprietary refrigeration technology reduces power consumption by up to 70% compared to conventional models, contributing to the reduction of greenhouse gas emissions by adopting low-GWP\* refrigerant “R-449A”



low temperature (& humidity) chambers  
Platinous J Series ECO Type

( Released in Oct. 2024 )

## **First domestic launch by COSMOPIA HIGHTECH of a rapid temperature change device using low-GWP refrigerant**

- In October 2024, COSMOPIA HIGHTECH, part of our Group, launched the first domestic rapid temperature change device equipped with low-GWP\* refrigerant “R-473A”
- Complies with international test standards and contributes to the reduction of greenhouse gas emissions



Rapid Temperature Change Device Premium Excellent Series  
(EC-28PXHH)

\* Metric for expressing the warming potential of greenhouse gases relative to carbon dioxide. The smaller the value, the lower the environmental impact.

# Equipment Business: New Product Introduction 2

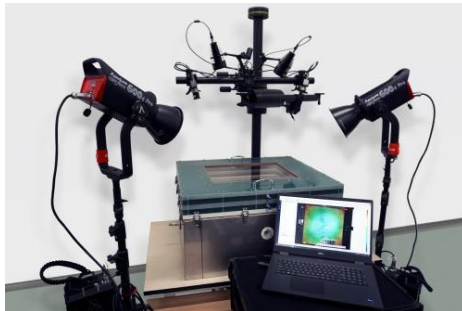
(Expansion in Jan. 2025)

( Released in Apr. 2025 )

## Commissioned Measurement Services

Contribute to improving the accuracy of thermal analysis CAE and heat dissipation design of semiconductor packages, mounting substrates, etc.

- Thermal Dependent Warpage Measurement Service
  - Visualize the warpage deformation of semiconductor packages and mounting substrates
  - Supports reflow oven temperature environment (-40°C to +260 °C)
  - Supports large substrate sizes up to 300 mm
- Thermal Image Analysis Service
  - Visualize the temperature distribution of specimens under constant temperature environment (-40 °C to +100 °C)



Thermal Dependent Warpage  
Measurement Service

## -70°C Ultra-Low Temperature Shock Freezer for delicious rapid freezing

- In April 2025, launched the “Ultra-Low Temperature Shock Freezer” capable of freezing food rapidly at -70°C, preserving freshness even for perishable items
- Enables freezing in a low airflow environment, preventing food from drying out, and allows a seamless process from freezing to thawing and reheating in a single unit



Ultra-Low Temperature Shock Freezer

# Equipment Business: Examples of Products Delivered 1

(Delivered in Jul. 2018)

## Walk-in Type Temperature (& Humidity) Chamber, for building materials

### Uses:

Reproduce the environment inside apartments (temperature and humidity) and outdoors (weather such as rain, snow, and sunlight), conduct performance evaluations and durability tests of building materials for sash, balcony, etc.



Walk-in Type Temperature (& Humidity) Chambers,  
for use for building materials



Temperature (& Humidity) Chambers are movable so that building materials for testing can be easily changed



Furnished with irradiation equipment and watering (rain) equipment, to reproduce an outdoor weather environment

# Equipment Business: Examples of Products Delivered 2

(Delivered in Mar. 2016)

## **Smart System Research Facility, Fukushima Renewable Energy Institute, AIST (Koriyama city, Fukushima)**

Product delivered:

Large Walk-in Type Temperature & Humidity Chamber

Uses:

Performance and safety evaluation for large power conditioners for solar power generation

Supports heat generation loads of 100 kw and large weights (21 tons)



Large Walk-in Type Temperature & Humidity Chamber

## **National Laboratory for advanced energy storage technologies (NLAB), National Institute of Technology and Evaluation (Nanko, Osaka City)**

Product delivered:

1. Walk-in Type Temperature & Humidity Chamber for charge-discharge testing
2. External short-circuit testing equipment (energy devices equipment)

Uses:

1. Evaluate the performance of storage batteries by repeatedly charging and discharging them
2. Evaluate safety by confirming that storage batteries will not catch fire or rupture if they short circuit



Walk-in Type Temperature & Humidity Chamber  
for charge-discharge testing

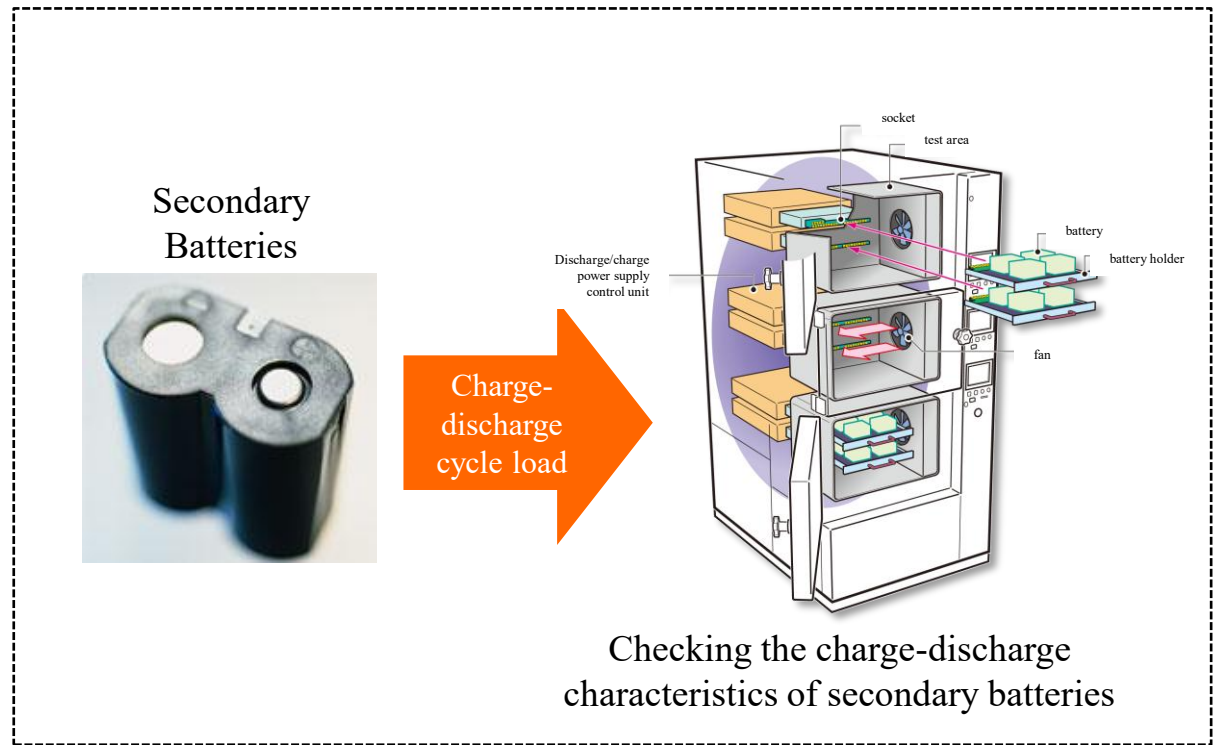
# Equipment Business: Usage Case with Energy Device Equipment

## Charge-discharge Cycle Evaluation Equipment

Equipment for ensuring the reliability and safety of lithium-ion secondary batteries for next-generation vehicles (e.g., hybrid and electric vehicles)



Secondary Battery Charge-Discharge Evaluation System



Evaluating the performance and life of secondary batteries

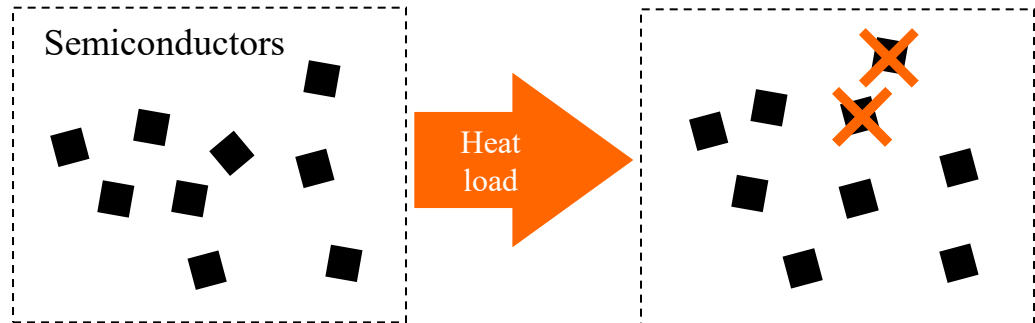
# Equipment Business: Usage Case with Semiconductor Equipment

## Screening

Eliminate defective products to maintain initial-period quality at the final inspection stage of semiconductor device manufacturing



Burn-In Chamber



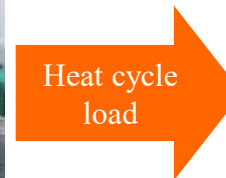
Elimination of latent early failures

## Reliability Evaluation

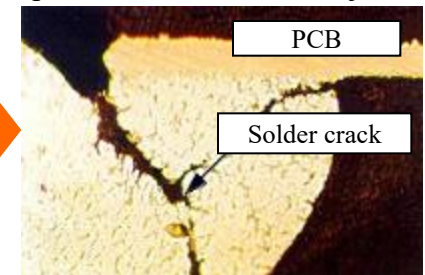
Used to evaluate basic failure patterns to ensure reliability in the development of new technologies



Conductor Resistance Evaluation System



Example of defect in soldered joint



Electrical evaluation of reliability of joints in electronic parts

# Service Business

## After-Sales Service and Engineering

Preventive maintenance of products, maintenance service, and the upgrading/improvement and installation/relocation of products

- Speedy response via one of the most extensive networks in Japan
- Providing “network services” utilizing mobile device (SIM) communications and cloud computing

## Laboratory Testing Services and Facility Rentals

Laboratory testing, analysis, and evaluation; consulting; equipment rental; sales of used products; calibration of test equipment, etc.

- The company has Five laboratory testing centers in Japan, one in Thailand, two in China.

(Japan: Utsunomiya, Toyota, Kariya, Tokoname and Kobe, Thailand, China: Shanghai, Suzhou)

- The centers in Japan are also recognized as official calibration facilities under the Japan Calibration Service System (JCSS).

- xEV Battery Safety Test & Certification Center provides one-stop testing and certification service for automotive secondary battery safety compliant with United Nations regulations

- In October 2014, entered into business alliance with TÜV SÜD Japan Ltd., a third-party certification agency

- In September 2015, opened in Utsunomiya City, Tochigi Prefecture, and in February 2025, opened in Tokoname City, Aichi Prefecture.

- Acquire ISO/IEC 17025\* test facility certification in the three fields of automobiles, trains and airplanes.

- **First in Japan** The Toyota Test Center addressing all test items set forth by the LV124 German Automotive Manufacturer Testing Standards.



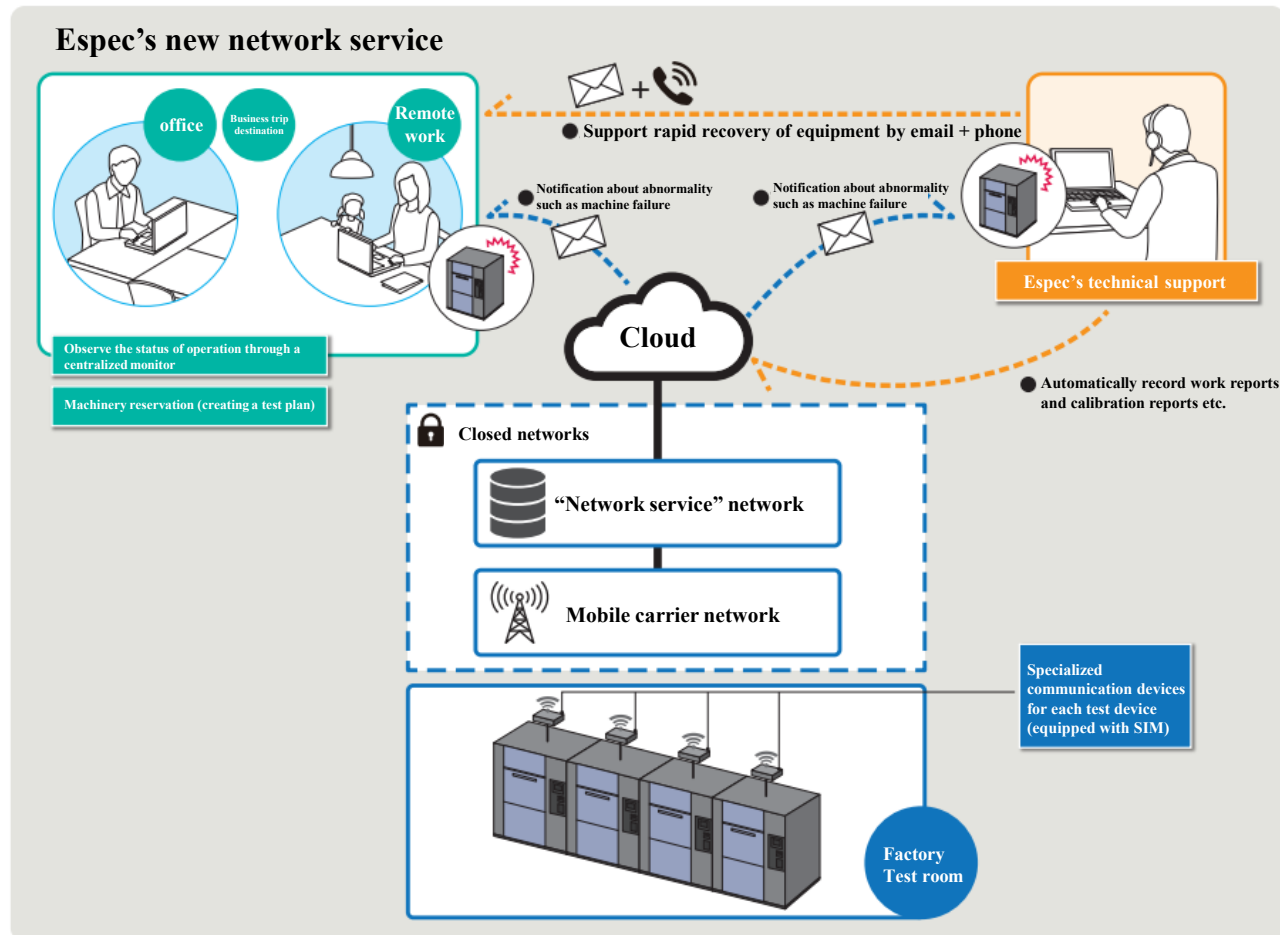
Tochigi xEV Battery Safety Test &  
Certification Center  
(within the Utsunomiya Technocomplex)

\* ISO/IEC 17025: An international standard in which an authoritative third-party organization certifies whether a test facility or calibration organization is capable of producing accurate measurements or calibration results.

# Service Business: After-Sales Service

(Started in Apr. 2022)

“Network service” utilizing mobile communications and cloud computing.  
Eases the burden on customers' tests and machinery management, and reduces equipment downtime.



# Service Business: Laboratory Testing Services

First Compliant with United Nations  
Regulations in the World  
Tochigi xEV Battery Safety Test &  
Certification Center

- In September 2015, opened in Utsunomiya Technocomplex.
- Provide a one-stop service to support the implementation of 9 safety tests and applications for certification by agencies, as stipulated by UN ECE R100-2. Part II, a United Nations regulation.



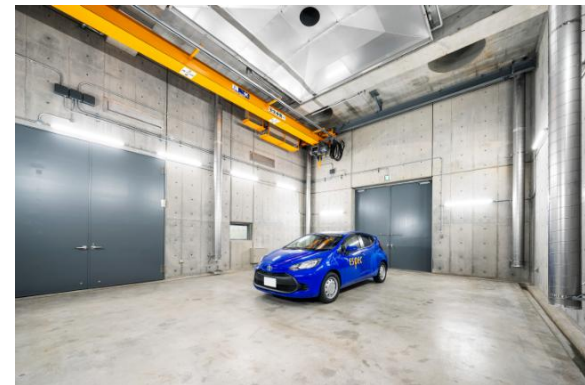
Crush Testing Equipment  
(No. 1 Safety Test Room)



No. 2 Safety  
Test Room

Aichi xEV Battery Safety Test & Certification  
Center, One of Japan's Largest Dedicated  
Automotive Rechargeable Battery Testing Centers

- Opened in February 2025 at the Tokoname site of Aichi Next Generation Mobility Test Lab.
- Supports larger and higher capacity automotive rechargeable batteries with cutting-edge testing facilities.



A safety testing room that  
can accommodate one car

# Service Business: Laboratory Testing Services

Supporting testing of a wide range of  
in-vehicle electrical components  
including automation modules

- In September 2019, Toyota Test Center became compatible with all test items set forth by the LV124 German Automotive Manufacturer Testing Standards.
- In April 2025, functions were expanded to simulate the usage environment while EV and automation modules are in operation, and services were newly enhanced for conducting evaluation and measurement.



Toyota Test Center

First Commissioned Testing Service in Japan  
Powered 100% by Renewable Energies

- Since April 2021, commissioned testing services at five test centers across Japan (Utsunomiya, Toyota, Kariya, Kobe, Tochigi xEV Battery Safety Test & Certification Center and Aichi xEV Battery Safety Test & Certification Center ) have been provided using renewable energies.
- Contributing to the reduction of CO2 emissions in customers' supply chains.



Test reports from tests conducted at ESPEC's testing centers receive the Green Power logo to clearly indicate zero CO2 emissions during testing.

# Other Business

## Environmental Preservation

### ■ Reforestation (Tree planting)

Recovery of local forest by selecting species and planting out seedlings using potential natural vegetation data.

### ■ Waterfront biotope restoration

Reconstruction of natural environment, development of vegetative revetments, and water quality improvement using aquatic plants.

### ■ Urban greening

Provision of roof and wall greening systems that use moss to effectively alleviate heat island effect.



## Plant Production Systems

Plant factories and research seedling cultivation systems that optimally control light, temperature, humidity, nutrients, and other factors necessary for plant growth.



Plant factory



Phyto-toron

# Other Business: Plant Production Systems

## Joint Development with NARO Cultivation Environment Emulator

- Obtained a patent jointly with the National Agriculture and Food Research Organization (NARO) and others in October 2022.
- Precisely reproduces seasonal carbon dioxide concentration, temperature, humidity, etc.
- Contributes to development of crop production technologies adapted to climate change.



Cultivation Environment Emulator

\* ESPEC MIC Corp. jointly obtained the patent with the National Agriculture and Food Research Organization (NARO), Riken and the Agri Open Innovation Institute.

## Produced a high value-added vegetables using deep sea water

- Production and sales of vegetables high in minerals with the use of deep sea water at a plant factory near Haneda Airport.



Interior of the plant factory and factory-produced vegetables “mineraleaf”

# Other Business: Environmental Preservation/ Plant Production Systems

## At Expo 2025 Osaka-Kansai cooperating in venue greening and aquaponics exhibitions

- Provision of planted mats and seedlings at the venue
  - Supplying mats planted with Japanese native cogon grass and seedlings of silver grass for the “Grand Ring”, and wild grasses and aquatic plants to border the pond’s edge in the “Forest of Tranquility”.
  - Also supplying for the EXPO National Day Hall, Hungary Pavilion, Kuwait Pavilion, Signature Pavilions, etc.



The Grand Ring

- Cooperation in exhibitions at the Osaka Healthcare Pavilion
  - Collaboration with the Osaka Metropolitan University R&D Center for the Plant Factory to support aquaponics exhibits.
  - Provision of vegetable cultivation technologies and expertise.

What is aquaponics?

A recycling production system that combines hydroponics and land-based cultivation. Bodily waste from fish is decomposed by microorganisms and used as a source of nutrients needed to grow plants. This enables vegetables to be grown either without using chemical fertilizers or reducing the amount of their use.



Aquaponics “Cradle of Life”

# Other Business: Examples of Products Delivered

## ■ Arid Land Research Center, Tottori University

(Delivered in Mar. 2016)

### Products delivered:

Experimental System for Analyzing Responses of Dryland plants to Climate Changes (2 units)  
(Simulates the climates of arid lands, including high temperature, low humidity, strong sunlight, and high winds)

### Uses:

Plant cultivation experiments and experiments to develop efficient water-usage technologies in arid lands, research to solve issues facing arid lands



Experimental System for Analyzing Responses of  
Dryland plants to Climate Changes



Experiment in progress  
(Testing wheat for drought stress)

# Introduction to ESPEC's All Weather Simulation Chamber (in the Kobe R&D Center)

(Mar. 2021)

Opened the world's first All Weather Simulation Chamber  
Encouraging open innovation and strengthening environmental creation technology

Replicates dynamic climate environments with high-precision control and variation of seven environmental factors (temperature, humidity, snow, fog, rain, sunlight and wind)

## ■ All Weather Simulation Chamber



Test chamber: Width 6 m x Depth 9 m x Height 3 m

A black coating is applied to suppress  
the diffuse reflection of light.

## ■ Examples of tests in dynamic environments



### (1) Tests to replicate the change from sleet to snow

Snow with different amounts of water content can be replicated, including snowfall at temperatures around 0°C, which is close to snowfall in a natural environment. By controlling the snow quality and temperature, the laboratory replicates the change from sleet to snow. The laboratory can confirm the performance of automated driving sensors for which snow accretion has become a problem.



### (2) Experiment to replicate the change from rain to fog

The laboratory controls the thickness, temperature and humidity of fog and replicates the change from rain to fog. The laboratory can confirm the performance of automated driving sensors in response to the effects of fog.

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Securities ID code:6859

Reference

## Sustainability Initiatives

ESPEC CORP.  
November 21, 2025

# About ESPEC's Sustainability

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Guided by our corporate philosophy,  
“THE ESPEC MIND,” ESPEC will help to solve social and  
environmental issues through businesses centered on  
environmental creation technology, with the aim of achieving  
sustainable growth.

# Corporate Philosophy

Our important values that have been passed on since our inception  
“THE ESPEC MIND” (Excerpt)

## The Origin

Aim for better value exchange as a public institution

## Mission

Provide more certain Seikankyo (living environment) via environmental creation technology

## Style

Progressive, Reliable, Open, Fair

## Declaration

What ESPEC promises society

“compliance, ” “ culture, ” “ human rights, ” “ the environment, ”  
“education/enlightenment. ”

# Sustainability Policy and Materiality

Looking toward sustainable growth, we formulated a sustainability policy, and identified materiality (important issues) that must be addressed in order to produce social and economic value.

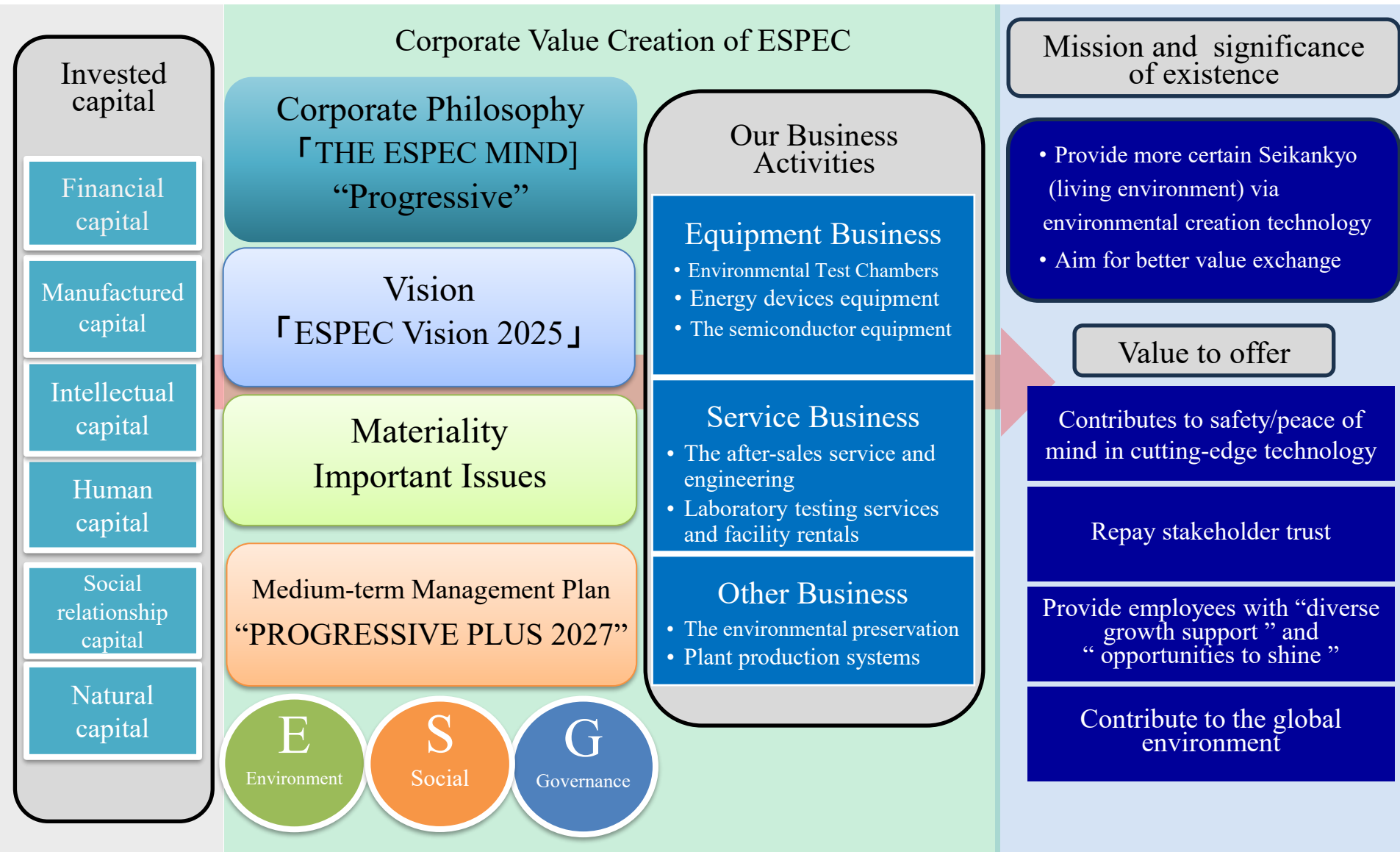
## Sustainability Policy

- By putting our corporate philosophy (THE ESPEC MIND) into practice, we are working to create and improve both social value and economic value.
- By maintaining a good exchange of value with our stakeholders, we are aiming for continuing growth.
- Based on ESPEC Vision 2025, we will contribute to solutions for the global environment and social issues through our business activities, centering on Environmental Creation Technology.
- We will engage in active disclosure of information related to sustainability.

## Materiality

- Solve social challenges through global business
- Provide products and services with responsibility
- Be environmentally friendly
- Securing and cultivating diverse human resources
- Respect for human rights
- Use of digital technologies
- Enhancement of group governance

# Corporate Value Creation Process



# ESPEC's Business

## Equipment Business

Contribute to the development of advanced technologies  
through the supply of products and services leveraging environmental creation technology

- Supply products and services that contribute to the development of advanced technologies to solve social and environmental issues

### ● Environmental Test Chamber

Supply environmental test chambers that artificially replicate environmental factors such as temperature and humidity, thereby ensuring the reliability of products

### ● Energy Device Equipment

Supply evaluation systems for secondary batteries and fuel cells installed in eco cars

### ● Semiconductor Equipment

Supply products such as burn-in chambers and systems for semiconductor inspection and measurement and evaluation systems



Temperature & Humidity Chamber  
"Platinous J series"



Drive-In Chamber for Vehicle Testing



Burn-In chamber  
for semiconductor inspection



Secondary Battery Charge-Discharge  
Evaluation System

# ESPEC's Business

## Service Business

Contribute to the development of advanced technologies through the supply of products and services leveraging environmental creation technology

- Supply products and services that contribute to the development of advanced technologies to solve social and environmental issues

### ● After-sales Service and Engineering

Conduct product maintenance and preventive maintenance so that customers can use systems with peace of mind.

### ● Laboratory Testing Services

Provide laboratory testing services based on technologies and testing expertise developed through environmental tests.



Technical support using IT



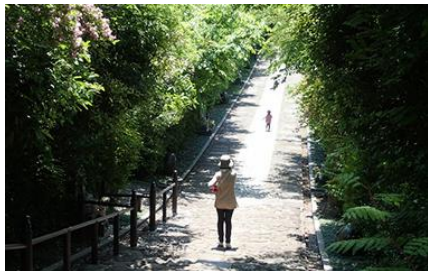
Capable of performing various safety tests for secondary batteries compliant with United Nations regulations and other standards  
Battery Safety Testing Center

# ESPEC's Business

## Environmental Conservation Business

### Contribute to biodiversity conservation

Environmental conservation business to restore the natural environment, including reforestation (tree planting) that contributes to biodiversity and CO2 fixation, waterfront biotope restoration to restore natural rivers, and grassland creation using native species.



A forest restored along the approach to Rinno-ji Temple in Sendai



Waterfront biotope restoration on the Sumida River Terrace in Tokyo

## Plant Production Systems Business

### Contribute to a stable food supply to address global warming and extreme weather

Provide plant factories and research devices that can efficiently produce vegetables by controlling temperature, light, and other factors, as well as systems such as aquaponics that circulate water and nutrients to grow vegetables and fish together.



Plant factory using deep sea water  
Produce and sell vegetables  
high in minerals



Experimental System for Analyzing  
Responses of Dryland Plants to Climate Change  
(Arid Land Research Center, Tottori University)

# Products and Services that Contribute to Resolving Environmental and Energy Issues

- Product lineup to evaluate the performance and durability of secondary batteries, fuel cells, solar batteries and power devices



Secondary Battery Charge-Discharge Evaluation System



Fuel Cells Evaluation System



Temperature Cycle Test System for Solar Battery Modules



Power Cycle Test System for Power Device

- xEV Battery Safety Test & Certification Center compliant with United Nations regulations on the safety of automotive secondary batteries

- In October 2014, entered into business alliance with TÜV SÜD Japan Ltd., a third-party certification agency
- In September 2015, opened in Utsunomiya City, Tochigi Prefecture, and in February 2025, opened in Tokoname City, Aichi Prefecture



Tochigi xEV Battery Safety Test & Certification Center

- Laboratory testing services using 100% renewable energies (domestic)

# Environment Targets / Mid-term Plan on the Environment

## Environment Targets for FY2030

Reduce greenhouse gas emissions

by 60% for SCOPE 1+2, 30% for SCOPE 3 (compared with FY2019 levels)

In July 2023, received Science Based Targets (SBT) certification from the international SBT Initiative\*

\*SBT Initiative

An international initiative that encourages firms to set scientifically-grounded targets for reducing greenhouse gas emissions so that the goals of the Paris Agreement may be achieved. Jointly managed by CDP, which is an NGO involved in environmental information disclosure, UNGC (United Nations Global Compact), WRI (World Resources Institute), and WWF (World Wide Fund for Nature).



## The 8th Mid-Term Plan on the Environment (FY2022-FY2025)

Basic Policy: “Contributing through business with customers involved with developing green technologies”  
Strengthening efforts toward combating global warming and conserving biodiversity

### ■ Environment Targets for FY2025

- Reduce greenhouse gas emissions by 55% for SCOPE 1+2 and 10% for SCOPE 3 (compared with FY2019 levels)
- Contribution of 95t (total) of carbon fixation through 50,000 trees planted by ESPEC MIC Corp.
- Biodiversity conservation activities through the “ESPEC’s 50-Year Forest” in Sanda City, Hyogo Prefecture

# Biodiversity Preservation Initiatives (1)

## Kobe R&D Center, a hub for biodiversity preservation activities ESPEC Bambi-no-Sato Certified as a “Natural Symbiosis Site” by the Ministry of the Environment

The site has a forest of approximately 30,000 trees comprising native plant species, planted and grown by employees; rooftop green space using plant species native to the northern Rokko region on the roof of the technology development building; and a biotope made up of two ponds and a stream. In October 2023, Certified as “Natural Symbiosis Site by the Ministry of the Environment. In August 2024, it was registered as an OECM\* in the international database.



Received 2024 Minister of Economy, Trade and Industry Award, at the National Award for Greenery Factory sponsored by METI.



Renewal of the ABINC Certification of the Association for Business Innovation in harmony with Nature and Community (ABINC) in FY2025.

\*OECM (Other Effective Area-based Conservation Measures): Areas outside protected areas that contribute to biodiversity conservation

# Biodiversity Preservation Initiatives (2)

## Biodiversity conservation activities “ESPEC’s 50-Year Forest”

- In November 2022, started the forest creation for “ESPEC’s 50-Year Forest” using the “corporate forests” system under the Ministry of Agriculture, Forestry and Fisheries in Sanda City, Hyogo Prefecture
- Held a total of three tree-planting festivals by April 2024.
- Approximately 400 employees and others participated in planting a total of 12,000 trees over the past two years



The 3rd Tree-Planting Festival  
Seeds were selected based on carbon fixation and biodiversity functions.

## ESPEC Foundation for Earth Environment Research and Technologies

- Provides funding support every year for research, technology development on global environmental conservation
- Grants totaling ¥173.9 million have been provided to a total of 344 groups over the past 27 years since the Foundation was established in 1977



28th award ceremony

# Initiatives to Maximize Human Resources

## Improving the quality of corporate culture and organizational management

- Round-up Training Course, Direct Communication sessions, Company-wide event, 1 on 1 meetings, address people with “san” rather than their job titles
- Engagement surveys, personnel assessments, and 360° Surveys
- A performance evaluation system that fosters ambition and growth

## Individual growth support

- Career training
- Support for language study
- Recurrent education
- Remote learning

### Company

- Diverse growth support
- Providing opportunities to shine

### Enhancing corporate value

Sharing the joy of growth  
Employees and management joining together in vigorous activity

### Employees

- Independent growth
- Work satisfaction

## Management strategy-linked human resources development

- Training of next-generation management
- Global human resources
- DX personnel and digital personnel

## Diversity and inclusion Ensuring employee health and safety

- Promoting the utilization of women and senior citizen employees
- Health promotion, mental healthcare
- Increasing the rate of disability hires
- Implementation of human rights and harassment education

# Contributions to Society

## ESPEC Smile Club: a donation system featuring employee participation

- Donated to an organization that conducts CSR activities related to children and medical care through the matching gift system in which the Company matches donations made by employees.
- In April 2025, We donated a total of 907,700 yen to Save the Children Japan's "Gaza Strip, Palestinian Authority - Emergency Assistance" and "2024 Noto Peninsula Earthquake Emergency Child Support".



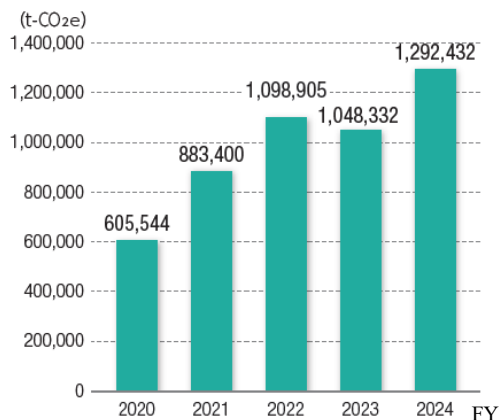
## Vegetables harvested at a plantation staffed by workers with disabilities were donated to children's cafeterias

- Periodically donated vegetables harvested at ESPEC Smile Farm\*, a plantation staffed by workers with disabilities, to local children's cafeterias
- \* Opened in November 2021 in a rental farm operated by a company that supports employment of people with disabilities. 4 individuals were hired to work at ESPEC Smile Farm, specifically 3 staff members with disabilities and 1 farm foreman.



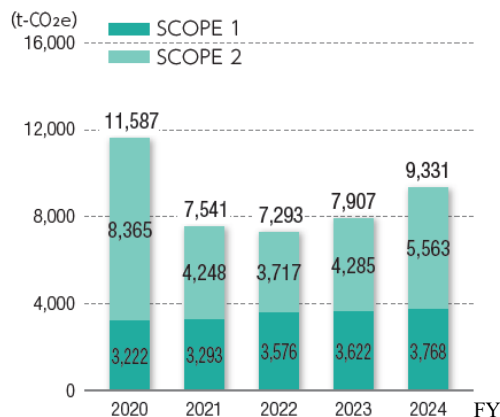
# Non-Financial Data (1)

Greenhouse gas emissions  
Total of SCOPE 1 + 2 + 3 (consolidated)

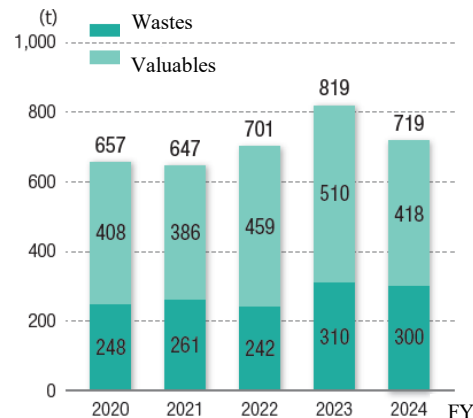


\*Excludes the Cosmopia Hightech Corp., which was made a consolidated company in August 2023.

Greenhouse gas emissions  
Total of SCOPE 1 + 2 (in-house emissions)  
(consolidated)



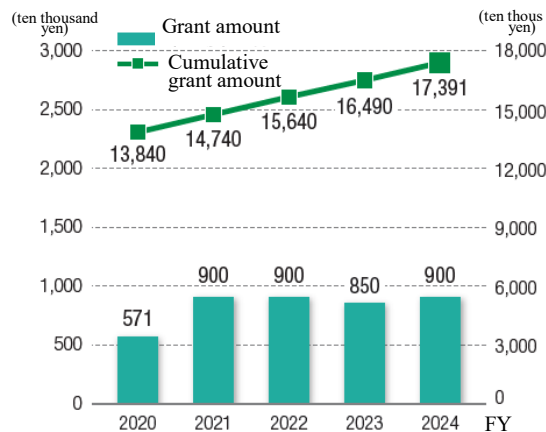
Total amount of Discharge (non-consolidated)



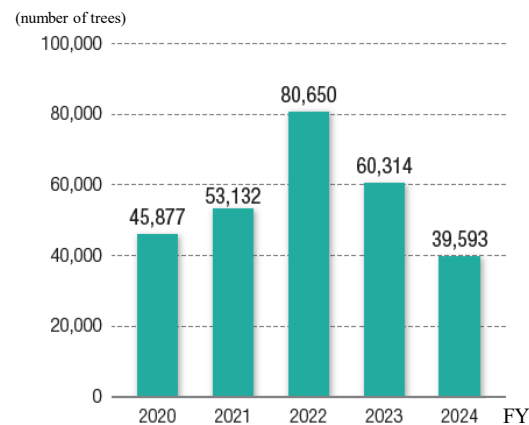
Certification acquisition rate for the  
Certification Test for Environmental  
Specialists (Eco Test) (non-consolidated)



Grants from the ESPEC Foundation for Earth  
Environment Research and Technologies



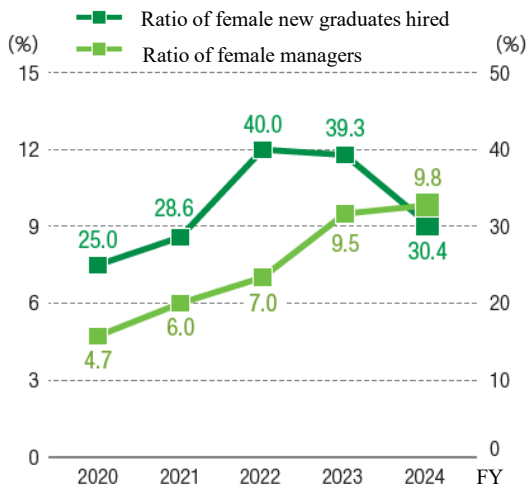
Number of trees planted through  
environmental preservation business



\*Actual results for ESPEC MIC CORP.

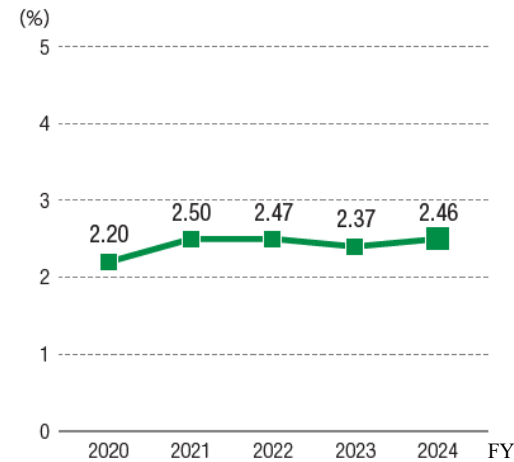
# Non-Financial Data (2)

Ratio of female managers  
Ratio of female new graduates hired  
(non-consolidated)



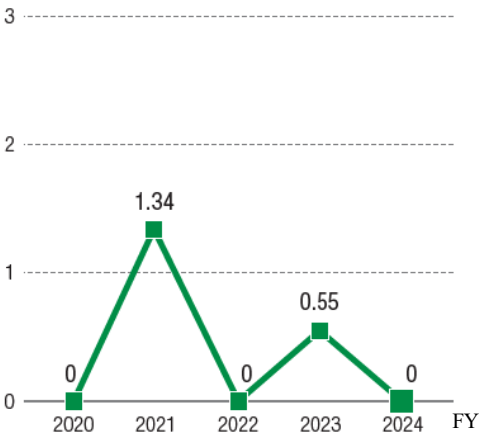
\*As of beginning of each fiscal year

Percentage of employees with disabilities  
(non-consolidated)



\*As of the end of each fiscal year

Frequency rate\* (non-consolidated)



\*Number of accidents with sick leave  
/total number of worked hours × million hours

# Non-Financial Data (3)

		Unit	2021/3	2022/3	2023/3	2024/3	2025/3
Number of Employees*1	(Consolidated total)	Persons	1,526	1,628	1,691	1,775	1,860
Number of Employees*1	Non-consolidated total	Persons	780	770	778	790	663
	Male	Persons	658	643	636	633	175
	Female	Persons	122	127	142	157	838
Average years of service (Non-consolidated)		Years	19.2	19.1	17.2	17.0	15.3
Average age (Non-consolidated)		Years old	43.1	43.0	41.2	41.4	40.3
Turnover rate*2 (Non-consolidated)		%	2.3	1.6	1.4	3.3	2.3
Average overtime hours (Non-consolidated)		Hours	11.0	15.5	22.6	20.1	21.9
Average number of paid holidays taken (Non-consolidated)		%	65.8	69.1	75.1	74.3	77.8
Average wage difference between male and female (Non-consolidated)		%	-	-	70.3	72.5	73.5
Ratio of employees taking childcare leaves (Non-consolidated)	Male	%	12.5	30.8	13.3	52.9	56.0
	Female	%	100	100	100	100	100
Investment in employee education and development (Non-consolidated)		million yen	-	-	101	129	135
Occupational accident (excluding cases without lost workdays) (Non-consolidated)		Cases	0	2	0	1	0
Composition of Board of Directors*3 (Non-consolidated)	Ratio of independent outside*4	%	25	25	40	40	40
	Female ratio*4	%	0	0	20	20	20
Total number of reports to the internal hotlines (Non-consolidated)		Cases	0	0	0	1	0
Number of compliance issues (Non-consolidated)		Cases	2	1	3	2	2

\*1 The number of employees is as of the end of each fiscal year.

\*2 Retirees are excluded.

\*3 The Company has transitioned from a company with an Audit & Supervisory Board to a company with an Audit & Supervisory Committee in June 2022.

\*4 The number of female directors (including executive officers) is as of the end of June of each fiscal year.

# External Recognition

## ■ ESG-Related Evaluations

- Included in the ESG index “FTSE Blossom Japan Sector Relative Index”  
Included in the ESG index “S&P/JPX Carbo Efficient Index”
- Rated “B” score for the fifth consecutive year in the CDP Climate Change Survey, “B-” score for Water Security  
Selected as Supplier Engagement Leader for three consecutive years, the Top Rank in the Supplier Engagement Ratings
- Selected for the second consecutive year as an Asia-Pacific Climate Leader by the Financial Times in the UK and German data provider Statista
- Received a 3.5-star rating in the NIKKEI Sustainable Management Survey, SDGs Edition
- Received a 3-star rating in the NIKKEI Sustainable Management Survey, Smart Work Edition
- The Kobe R&D Center received the Minister of Economy, Trade and Industry’s Award as the National Award for Greenery Factory
- Received the Platinum Kurumin certification from the Minister of Health, Labour and Welfare as a company supporting child-raising.
- Earned the “Three Star Certification” under the “Osaka City Leading Company in Women’s Participation” and also certified as a “Company Promoting Ikumen”

## ■ IR Website Evaluations

- Selected as a Commendation Award of the Internet IR Award of Daiwa IR
- Selected as a “GRADE AAA” company website in the Nikko Investor Relations’ All-Japanese Listed Companies’ Website Ranking
- Awarded a Bronze Prize in the Gomez IR Website Ranking (17<sup>th</sup> in its industry)
- Awarded as an excellent company in the Gomez ESG Website Ranking



FTSE Blossom  
Japan Sector  
Relative Index



These materials contain forward-looking statements, including the Company's present plans and forecasts of performance, that reflect the Company's plans and forecasts based on the information presently available. These forward-looking statements are not guarantees of future performance, and plans, forecasts, and performance are subject to change depending on future conditions and various other factors.

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Quality is more than a word

ESPEC