

<Abridged Version>

ESPEC

**Securities ID code:6859**

**ESPEC CORP.**

**Results Briefings for  
Fiscal Ending March 2011**

May 25, 2011

[www.espec.co.jp](http://www.espec.co.jp)

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**Summary of ESPEC Business**

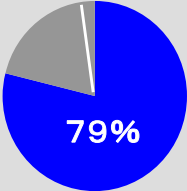
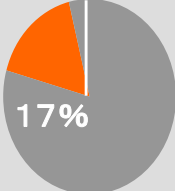
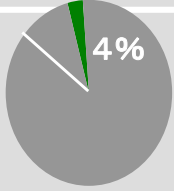
**Business Result for Fiscal Ending March 2011**

**Analysis per Segment for Fiscal Ending March 2011**

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**Reference**

# Individual Business Market / Use

		Main Products	Market	Use	Sales composition (2011/3)
Equipment Business	Environmental Test Chambers	<ul style="list-style-type: none"> <li>Temperature &amp; humidity chamber</li> <li>Walk-in type temperature &amp; humidity chamber</li> <li>Thermal shock chamber</li> <li>Vibration combined environmental test system</li> <li>HAST chamber</li> </ul>	<ul style="list-style-type: none"> <li>Electronic component and equipment market</li> <li>Automobile market</li> <li>Semiconductor market</li> <li>Communication market and others</li> </ul>	<ul style="list-style-type: none"> <li>For R &amp; D</li> <li>For credibility and evaluation</li> <li>※ Partially used for production and inspection</li> </ul>	 <p>79%</p>
	Semiconductor Equipment	<ul style="list-style-type: none"> <li>Burn-in system</li> <li>Semiconductor evaluation system</li> <li>Instrumentation 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 (inspection)</li> <li>※ Instrumentation system is for development and evaluation</li> </ul>	
	FPD Equipment	<ul style="list-style-type: none"> <li>Single processing system vertical clean oven</li> <li>Equipment for inspecting recharge batteries</li> </ul>	<ul style="list-style-type: none"> <li>LCD market</li> <li>PDP market</li> </ul>	<ul style="list-style-type: none"> <li>For production (Annealing, baking, drying)</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>Semiconductor market</li> <li>FPD market</li> <li>Automobile market</li> <li>Communication market and others</li> </ul>	—	 <p>17%</p>
	Commissioned Tests and Facility Rentals	<ul style="list-style-type: none"> <li>Commissioned tests</li> <li>Resale</li> <li>Equipment rental</li> <li>Calibration</li> </ul>		<ul style="list-style-type: none"> <li>For R &amp; D</li> <li>For credibility and evaluation</li> <li>※ Partially used for production and inspection</li> </ul>	
Other Business	Environmental Protection Business	Growth of forest, creation of waterfront, urban greening			 <p>4%</p>
	New Business	Vegetation factories, developing and creating new businesses as a major source of profit			

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*Business Result for Fiscal Ending March 2011*



# Consequences of the Great East Japan Earthquake

## Damage and impact of the earthquake on the ESPEC Group

■ **No loss of life/injury** was sustained by any of the employees of the ESPEC Group or their family members.

■ The Sendai Sales Office and the Utsunomiya Technocomplex have both already **recovered from the physical damage caused by the disaster and resumed operation.**

The disaster caused **no direct damage to the ESPEC production activities**, as its major production facilities are located outside of the affected areas.

■ ESPEC personnel **assisted customers in ensuring their business continuity** by taking prompt action to cope with the damage incurred to ESPEC products owned by customers and by quickly responding to customer needs for the relocation, replacement, and installation of ESPEC products.

■ Though some customers requested that the delivery of their ESPEC products be postponed, the **disaster caused only limited impact on business performance during the period under review.**

## Expected impact during the next period

■ While the potential impact of the earthquake and the nuclear power plant accident remain uncertain, the company has formulated a business plan for the next fiscal year **on the assumption that the affected areas and companies will recover from the damage and that the nuclear power plant problem will be settled as scheduled at present.**

■ **Currently, no serious impact is being felt by the company in terms of production and material procurement activities.**

# Financial Highlights

Backed by improvement in capital spending among major customers, the company posted an increase in income and restored profitability

## Profit (Loss)

- The company posted a sharp increase in both the sales and amount of orders received, and restored profitability against the backdrop of the improvement in capital spending in the semiconductor/battery industries and in the recovery in R&D investment by manufacturers of electronic components, electronic equipment, and automobiles.
- A drastic decline in extraordinary loss, coupled with the favorable tax effects, led to a sharp increase in net income during the period under review.

## Balance Sheet and Cash Flow

- Total assets increased by approx. 3 billion yen, reflecting the increase in notes and accounts receivable-trade, as well as deferred tax assets.
- While the company also registered an increase in net assets, the equity rate dropped by 3.7 percentage points because of the drastic increase in total assets.
- Cash rose by approx. 440 million yen due to the increase in operating cash flow.

## Dividends

- The annual dividend is expected to be 15 yen per share, with an interim dividend of 5 yen and a year-end dividend of 10 yen (scheduled).

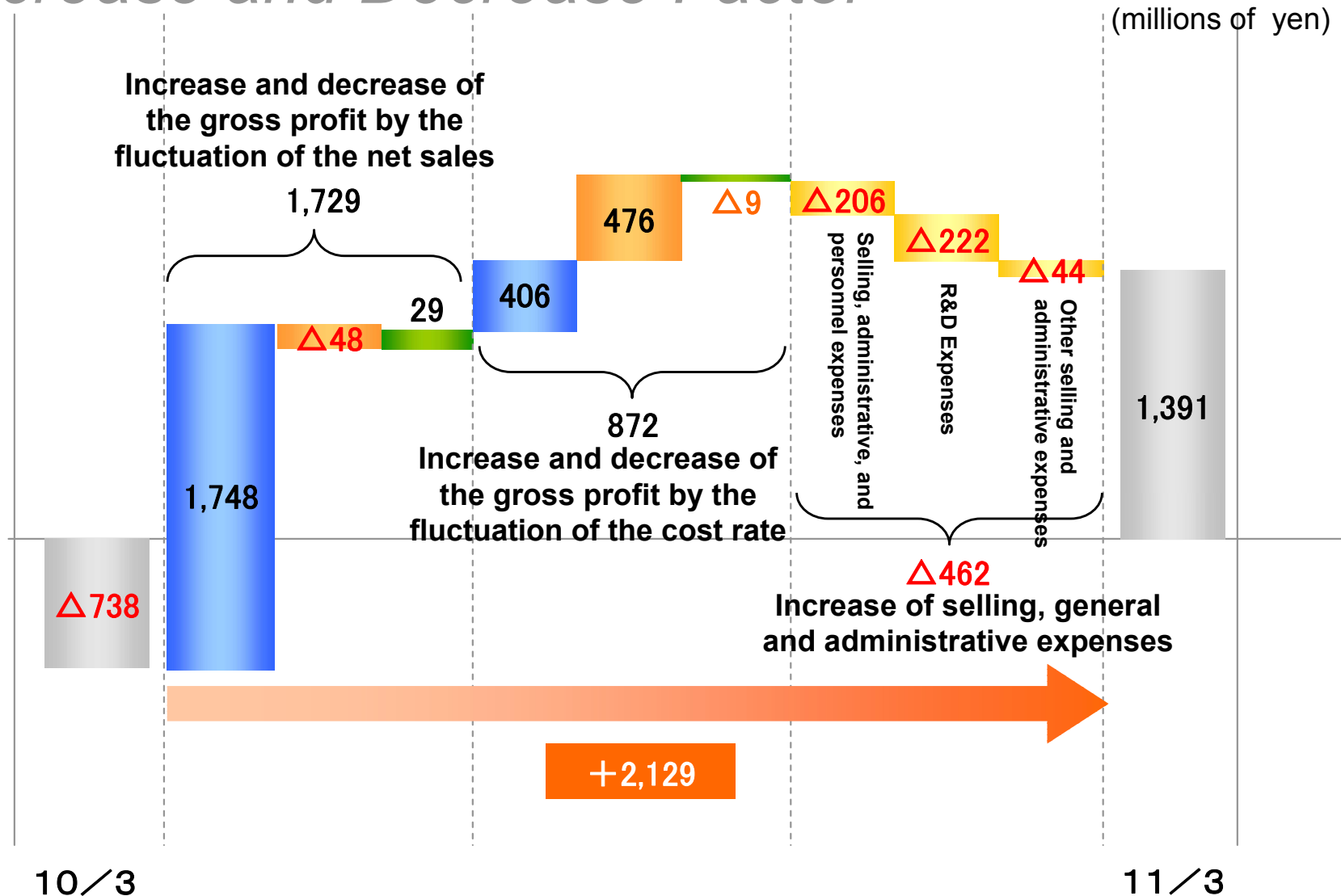
## Summary of Profits and Losses

(millions of yen, %)	2010/3		2011/3		Rate of Change
		Composition		Composition	
Net sales	23,775	100.0	29,589	100.0	24.5%
Cost of Sales	17,148	72.1	20,370	68.8	18.8%
Gross profit	6,626	27.9	9,219	31.2	39.1%
Selling, general and administrative expenses	7,365	31.0	7,827	26.5	6.3%
Operating income (loss)	△738	△3.1	1,391	4.7	—%
Non-operating income	270	1.1	357	1.2	32.1%
Non-operating expenses	97	0.4	64	0.2	△33.6%
Ordinary income (loss)	△565	△2.4	1,683	5.7	—%
Extraordinary income	1	0.0	63	0.2	6,300.0%
Extraordinary expenses	953	4.0	85	0.3	△91.0%
Loss before income taxes and minority interests	△1,517	△6.4	1,661	5.6	—%
Net Income (loss)	△2,630	△11.1	1,654	5.6	—%

- **Sales grew drastically** due mainly to the increased earnings from environmental test chambers and semiconductor equipment in the equipment business segment.
- **The cost-to-sales ratio fell by 3.3 percentage points**, reflecting successful cost improvement measures and expenditure reduction efforts.
- **Net income for the period under review increased sharply**, backed by the drastic decline in extraordinary loss, as well as by the effect of the income tax and other adjustment.

# Analysis of Operating Income Increase and Decrease Factor

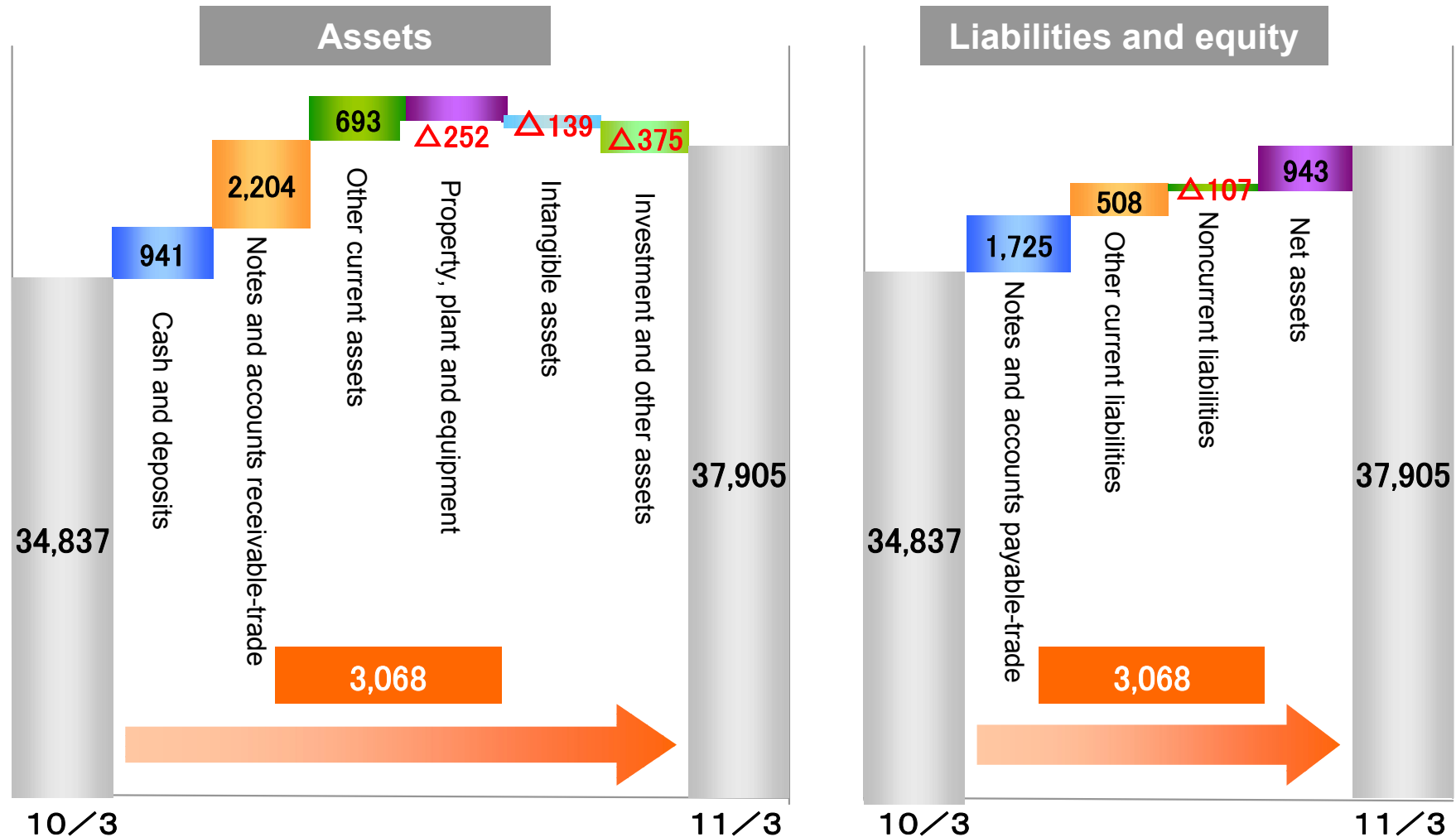
- Equipment Business
- Service Business
- Other Business+ Elimination





# Changes in Balance Sheets

(millions of yen)

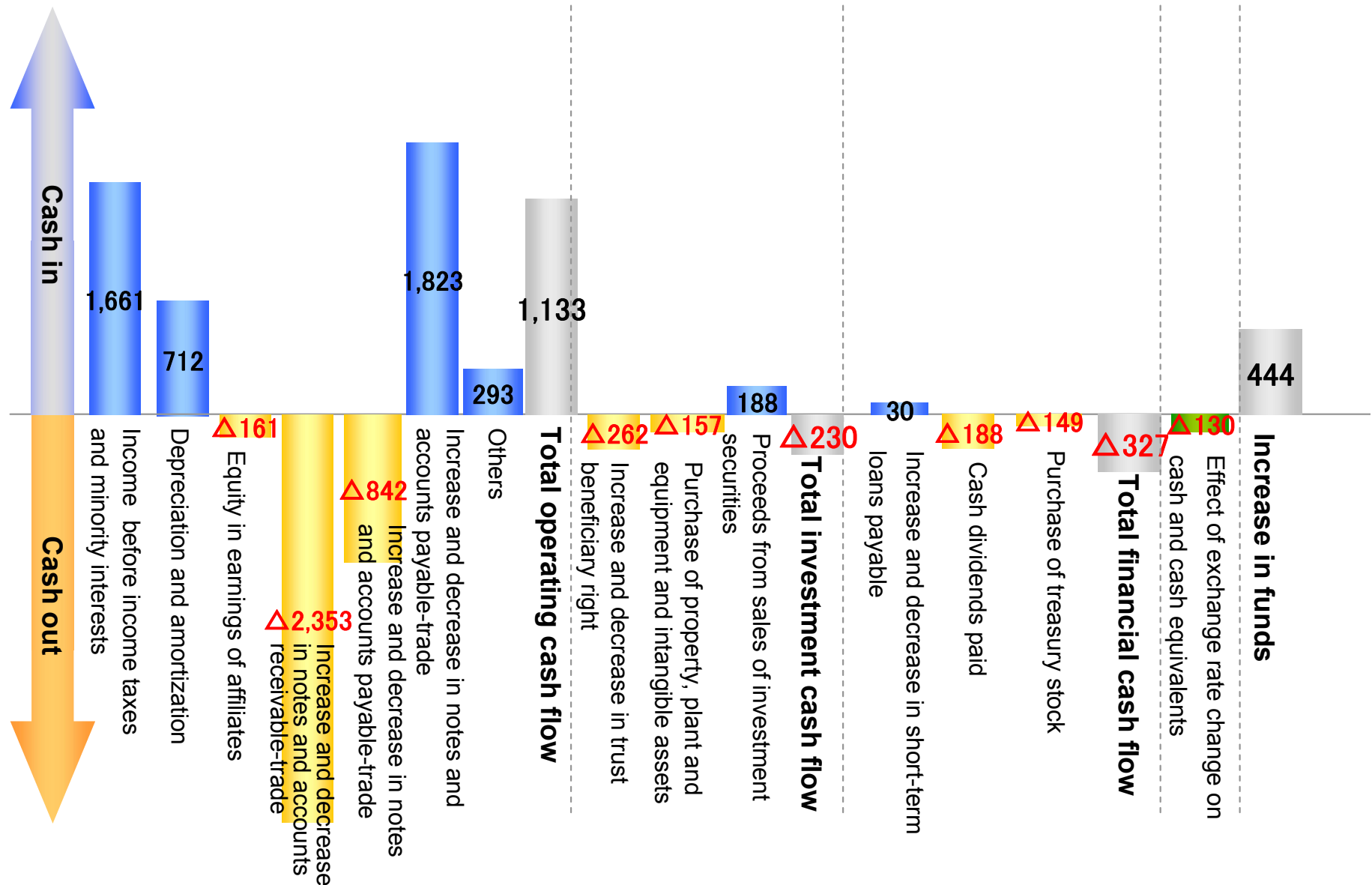


■ **Total assets grew by approx. 3.1 billion yen** due to the increase in notes and accounts receivable-trade, products, raw materials, and goods in process.

■ While the company also registered an increase in net assets, the equity rate **dropped by 3.6 percentage points to 72.4%** because of the increase in total assets.

# Statement of Cash Flow

(millions of yen)



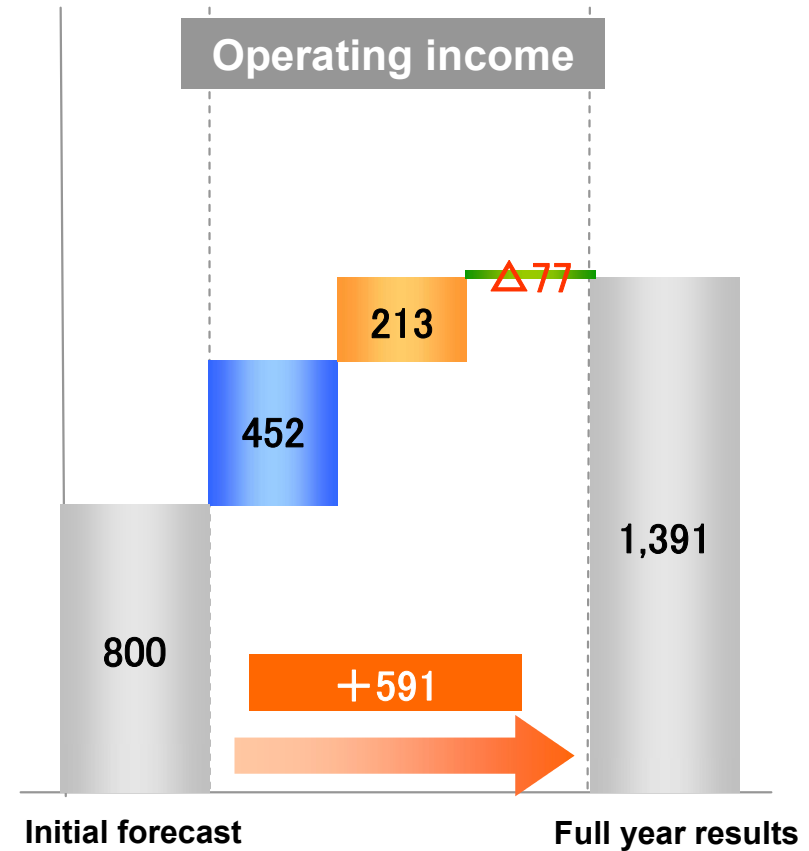
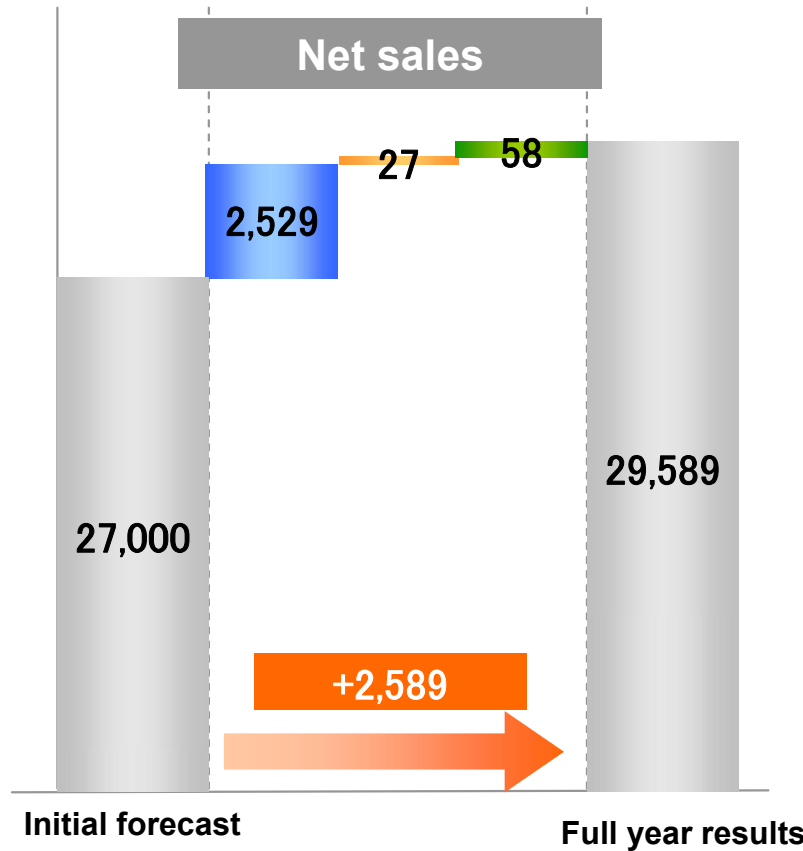
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*Analysis per Segment  
for Fiscal Ending March 2011*



# Analysis of Variance between Planned and Actual Results

■ Equipment Business  
■ Service Business  
■ Other Business+Elimination  
 (millions of yen)



■ The company posted an increase in sales against the backdrop of the continued improvement in capital spending in the semiconductor/battery markets and in the recovery in R&D investment by major customers.

■ The increased income, reduced fixed cost (which exceeded the initially projected figures), and improved cost-to-sales ratio led to a drastic growth of operating income.

# Equipment Business

## Environmental Test Chambers

- Energy-saving models of major products, such as thermal shock chambers and temperature and humidity chambers, were developed. Battery production equipment and other products were newly developed and launched in the market.
- Customer contact channels in the domestic market were enhanced through the consolidation of two subsidiary companies. The sales force was reinforced to better meet R&D needs in the battery industry.
- New customer bases were developed in the Korean and Taiwanese markets. Intensive sales promotional measures were taken in China and other emerging countries in Asia.
- Both the sales and amount of orders received exceeded the initially projected figures, increasing largely from the previous period.
- Operating income exceeded the initially projected figure, allowing the company to return to the black.

## Semiconductor Equipment

- Burn-in systems posted a sharp increase from the previous period in both the sales and amount of orders received.
- Profitability was restored thanks to the increased sales of burn-in systems.

## FPD Equipment

- Both the sales and amount of orders received declined from the previous period, due to profitability-oriented sales efforts.
- While the reduction of fixed cost led to the improvement in operating income, the company still posted an operating loss due to sluggish sales.

# Equipment Business

(millions of yen)	2010/3	2011/3		Initial forecast
			The Initial forecast ratio	
Orders- Received	17, 066	24, 557	115. 8%	21, 200
Net Sales	18, 215	23, 529	112. 0%	21, 000
Operating Income [Profit ratio (%)]	Δ1, 320 [-%]	1, 202 [5. 1%]	160. 3%	750 [3. 6%]

## Service Business

(millions of yen)	2010/3	2011/3		Initial forecast
			The Initial forecast ratio	
Orders- Received	5, 189	5, 320	106. 4%	5, 000
Net Sales	5, 057	5, 027	100. 5%	5, 000
Operating Income [Profit ratio (%)]	314 [6. 2%]	263 [5. 2%]	526. 0%	50 [1. 0%]

### After-sales Service and Engineering

- The amount of orders received increased from the previous period backed by the successful after-sales service campaign and by the offering of communication network systems, while sales remained almost unchanged from the previous period.
- Though the successful reduction of the stock of parts allowed the company to meet the target of the first plan, the hiring of additional service personnel resulted in an increase in personnel cost and eventually a fall of income.

### Commissioned Tests and Facility Rentals

- New test menus were developed and intensive sales promotional activities were carried out in cooperation with product sales personnel.
- Both the sales and amount of orders received fell from the previous period, though the target of the first plan was met. Operating income largely increased due to the reduction of fixed cost, allowing the company to restore profitability.

## Other Business

(millions of yen)	2010/3	2011/3		Initial forecast
			The Initial forecast ratio	
Orders- Received	942	1, 170	130. 0%	900
Net Sales	1, 051	1, 158	105. 3%	1, 100
Operating Income [Profit ratio (%)]	15 [1. 4%]	△77 [-%]	—%	0 [-%]

### Environmental Engineering, New Business

- The vegetation factory business remained solid, and both the sales and amount of orders received increased from the previous period, exceeding the target of the first plan.
- The company posted an operating loss due mainly to the increase in the cost incurred in promoting the sales of vegetation factories.



The “PLANTCELLAR” mini plant factory

<Topic>

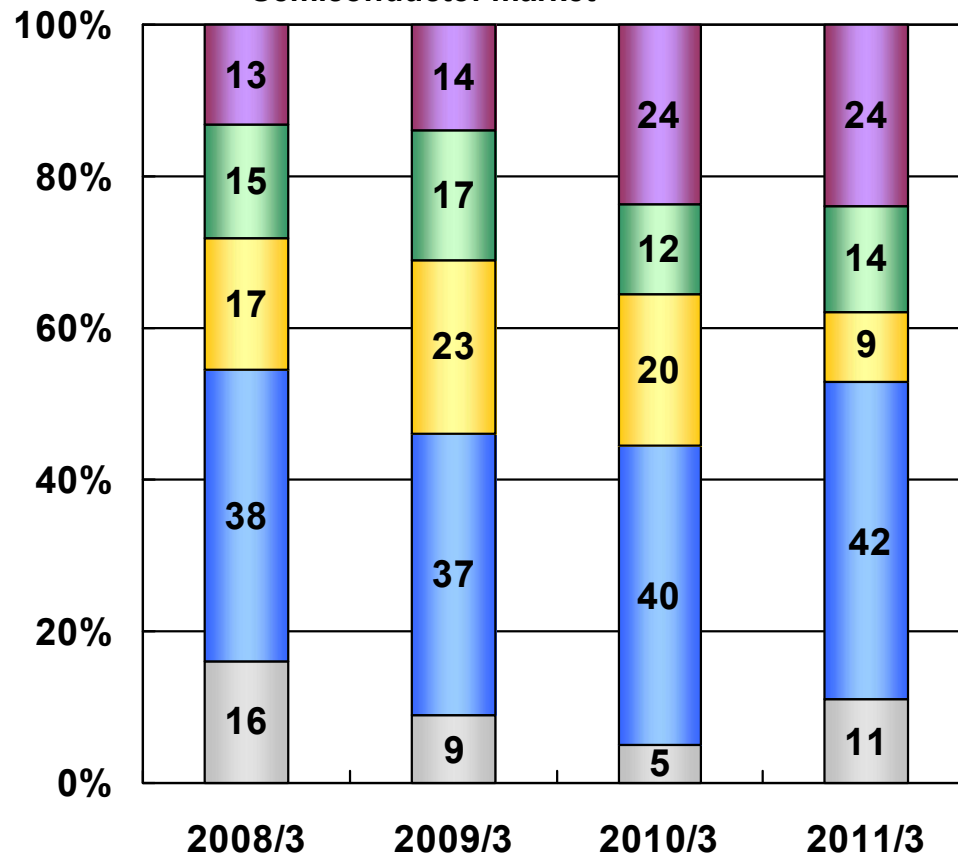
In January and February, the company jointly organized a tasting event with Teppan Dining Takitei—a restaurant that had introduced the company’s PLANTCELLAR on a trial basis. The event featured vegetables grown in the PLANTCELLAR, which were received favorably by visitors.



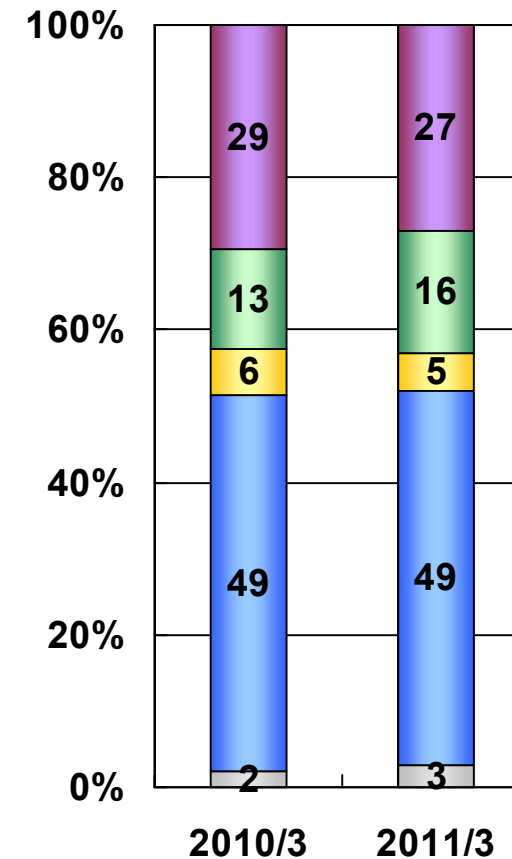
# Breakdown of Sales by Market

## Non-consolidated

- Other markets
- Automobile market
- Flat panel display market
- Electronic device and equipment market
- Semiconductor market



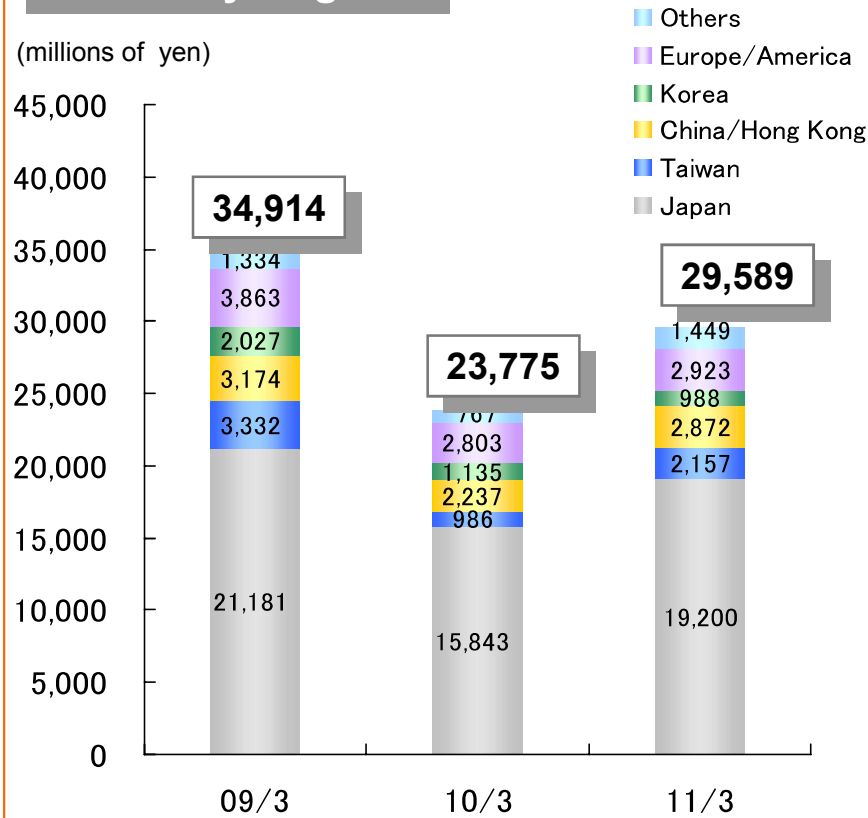
## Breakdown of sales in Environmental Test Chambers by market



# Sales by Region

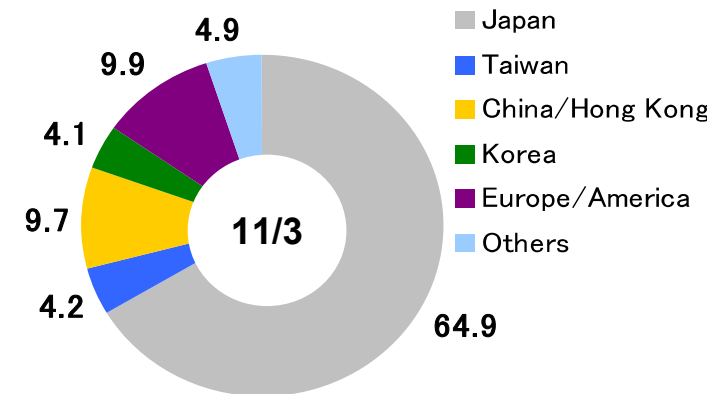
## Sales by Region

(millions of yen)



## Regional sales composition ratio in segment

**Overseas sales ratio: 35.1%**



< Non-consolidated >

	10/3 (yen)	11/3 (yen)
U.S. dollar	93.62	87.83
Euro	13.72	12.99
Won	12.08	11.31
Yen	0.0739	0.0762

	Japan	Taiwan	China/Hong Kong	Korea	Europe / America	Others
11/3	121.2%	218.8%	128.4%	87.0%	104.3%	188.9%
10/3	△25.2%	△70.4%	△29.5%	△44.0%	△27.4%	△42.5%

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*Management policy and Business Plan March 2012*



# *Business Climate Surrounding ESPEC*

**While the Japanese economy is faced with many uncertainties, investment in green innovation is likely to grow.**

## Major changes in the business climate

- The increasing globalization of Japanese manufacturers will accelerate the hollowing out of the Japanese manufacturing industry.
- Emerging countries, especially China, will enjoy further development as a driving force of the global economy.
- Environmental problems (e.g., energy, food, and water) will grow more serious.

## Business Environment

- Domestic demand for conventional environmental testing will decrease, while demand for new testing will emerge instead.
- The Japanese market will see huge potential replacement demand.
- Developed countries will accelerate the relocation of their production and R&D bases to China and other parts of Asia.
- There will be a rapid increase in R&D investment among Chinese companies with an aim to develop high-quality products and to export products of their own brands.
- As a global center of industry, Asia will see increasing and more diversified demand for environmental testing.
- Green innovation (technical innovation for transition to a low-carbon society) will be an essential part of the national strategies of each respective country, leading to the emergence of huge investment opportunities.

# Management Policy

## Basic policy

Creation of “Powerful Products” and “Powerful Factories”

## Key Strategies

Promote the sales of products that are better tailored to new customer needs and enhance the ability to meet the increasing need for customized products

Increase sales in the green technology market

Establish the basis of the plant factory business

Improve the ability to meet customer needs by capitalizing on the consolidation of the two subsidiary companies. Meanwhile, increase profit by streamlining the business processes

Increase sales by promoting a business strategy geared toward the growing markets in China and other parts of Asia

## Key Strategies ①

Promote the sales of products that are better tailored to new customer needs and enhance the ability to meet the increasing need for customized products

**The company will promote the sales of the energy-saving models of its thermal shock chambers and temperature and humidity chambers in response to the increasing customer need for higher energy-efficient products, while enhancing the ease of customization to achieve greater efficiency in factory operation.**

- **Stimulate replacement need among existing customers by offering energy-saving models.**
- **Introduce a process for easier customization to enhance manufacturing efficiency at factories.**
- **Build a new system and mechanism covering the entire process of product development, from design and procurement to manufacturing, in order to better meet the increasing demand for customized chamber products.**
- **Launch company-wide efforts involving sales, service, and accounting personnel.**

## Key Strategies ②

### Increase sales in the green technology market

**The company will promote the sales of products and services for development, evaluation, production, and inspection processes in the green technology market, the market for secondary and solar batteries, and power semiconductors.**

- Increase the sales of environmental test chambers in the green technology market.
- Take intensive sales promotional measures for newly developed battery production equipment.

## Key Strategies ③

### Establish the basis of the plant factory business

**The company will work toward the expansion, growth, and development of new business to cultivate the seeds of other new core businesses.**

- Increase the public recognition of the plant factory business and secure a foothold in the market.
- Develop new products and services satisfactory to customers and establish a firm basis of business.

## Key Strategies ④

Improve the ability to meet customer needs by capitalizing on the consolidation of the two subsidiary companies. Meanwhile, increase profit by streamlining the business processes

**The company will maximize the synergies from the consolidation of the two subsidiary companies to better meet customer need.**

- **Simplify the area- and segment-specific revenue management process.**
- **Place greater importance on visits to key customers.**

## Key Strategies ⑤

Increase sales by promoting a business strategy geared toward the growing markets in China and other parts of Asia

- **Strengthen customer contact channels through the effective use of local sales networks.**
- **Intensify promotional activities to increase the sales of new products.**
- **Make greater efforts to sell products in the green technology market.**
- **Make preparations for the renovation of the foreign distributor system to reinforce the sales force.**



# Full Fiscal Year Plan March 2012

(millions of yen)	2011/3 (Results)		2012/3 (Plan)			
	Second Quarter	Fiscal	Second Quarter		Fiscal	
				2Q on 2Q ratio		Year on year ratio
<b>Orders-received</b>	15,101	30,924	15,500	102.6%	31,000	100.2%
<b>Net sales</b>	12,916	29,589	14,500	112.3%	31,500	106.5%
<b>Gross profit</b> [Profit ratio (%)]	4,124 [31.9%]	9,219 [31.2%]	4,610 [31.8%]	111.8%	9,800 [31.1%]	106.3%
<b>Operating income (loss)</b> [Profit ratio (%)]	550 [4.3%]	1,391 [4.7%]	400 [2.8%]	Δ27.3%	1,300 [4.1%]	Δ6.5%
<b>Ordinary income (loss)</b> [Profit ratio (%)]	680 [5.3%]	1,683 [5.7%]	500 [3.4%]	Δ26.5%	1,450 [4.6%]	Δ13.8%
<b>Net Income</b> [Profit ratio (%)]	776 [6.0%]	1,654 [5.6%]	400 [2.8%]	Δ48.5%	1,400 [4.4%]	Δ15.4%
<b>Capital expenditures</b>	114	421	400	350.9%	600	142.5%
<b>Depreciation expenses</b>	371	703	340	Δ8.4%	740	105.3%
<b>R&amp;D expenditures</b>	519	1,092	600	115.6%	1,060	Δ2.9%
<b>Profit Per Share (yen)</b>	32.70	70.03	17.05	Δ47.9%	59.67	Δ14.8%

# *Equipment Business*

## **Environmental Test Chambers**

- Stimulate replacement demand among existing customers by launching the energy-efficient models of major products.
- Enhance the ease of customization and improve the cost-to-sales ratio.
- Put special focus on markets in China and other emerging countries in Asia.

## **Energy Device Equipment**

- Increase the sales of energy devices and continue sales promotional activities.

## **Semiconductor Equipment**

- Promote the sales of measurement evaluation systems by facilitating a more proactive approach to customers in the growing power device and eco device (EV/HEV, LED, PV, and LIB) markets.
- Explore next-generation methods for evaluating flash memories.

## **FPD Equipment**

- Promote the sales of clean ovens in the market for small liquid crystal displays for organic EL devices and smartphones.

## Equipment Business

(millions of yen)	2011/3 (Result)		2012/3 (Plan)			
	Second Quarter	Fiscal	Second Quarter	Fiscal		
				2Q on 2Q ratio	Year on year ratio	
<b>Orders-Received</b>	<b>11, 996</b>	<b>24, 557</b>	<b>12, 400</b>	<b>103. 4%</b>	<b>24, 400</b>	<b>Δ0. 6%</b>
<b>Net sales</b>	<b>10, 284</b>	<b>23, 529</b>	<b>11, 600</b>	<b>112. 8%</b>	<b>25, 000</b>	<b>106. 3%</b>
<b>Operating income</b> [Profit ratio (%)]	<b>433</b> [4. 2%]	<b>1, 202</b> [5. 1%]	<b>350</b> [3. 0%]	<b>Δ19. 2%</b>	<b>1, 100</b> [4. 4%]	<b>Δ8. 5%</b>

# Service Business

(millions of yen)	2011/3 (Result)		2012/3 (Plan)			
	Second Quarter	Fiscal	Second Quarter		Fiscal	
				2Q on 2Q ratio		Year on year ratio
Orders-Received	2,711	5,320	2,650	△2.3%	5,500	103.4%
Net sales	2,322	5,027	2,600	112.0%	5,400	107.4%
Operating income [Profit ratio (%)]	147 [6.3%]	263 [5.2%]	170 [6.5%]	115.6%	350 [6.5%]	133.1%

## After-sales Service and Engineering

- Apply a maintenance contract to new products and enhance the maintenance services offered under the contract.
- Work with sales personnel to propose to customers the upgrading of existing models, in order to reduce energy consumption, and encourage users to sign a new maintenance contract.

## Commissioned Tests and Facility Rentals

- Develop and offer new test menus concerning power devices and eco devices.
- Promote sales by reinforcing testing facilities and use test centers as showrooms.

## Other Business

(millions of yen)	2011/3 (Result)		2012/3 (Plan)			
	Second Quarter	Fiscal	Second Quarter		Fiscal	
				2Q on 2Q ratio		Year on year ratio
Orders-Received	463	1, 170	550	118. 8%	1, 300	111. 1%
Net sales	381	1, 158	400	105. 0%	1, 300	112. 3%
Operating income [Profit ratio (%)]	△32 [-%]	△77 [-%]	△120 [-%]	—%	△150 [-%]	—%

### Environmental Engineering

- Promote sales in the sectors of forest and waterfront recovery and offer rooftop/wall greening systems using moss.

### New Business

- Strengthen the sales of plant factories at home/abroad and establish the business basis.
- Develop new business by leveraging the company's core technologies and strengths.

# Dividends

## Dividend policy

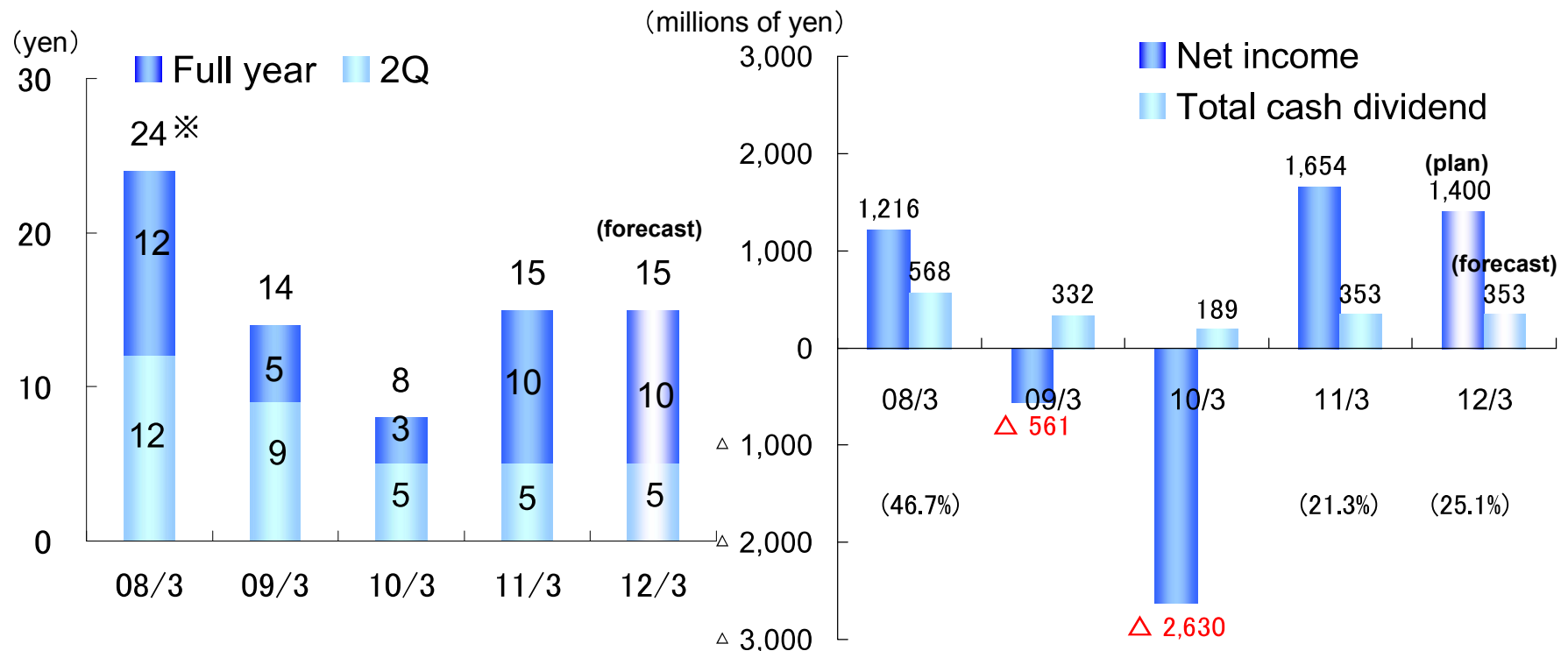
Recognizing that passing on profits to our shareholders is a key priority and that raising corporate value on a lasting basis is fundamental to raising shareholder value, dividends are decided taking into account sustainability and the dividend payout ratio.

## Dividend per share

\*Includes special dividend of 2 yen to commemorate the 60<sup>th</sup> anniversary of ESPEC Corp.

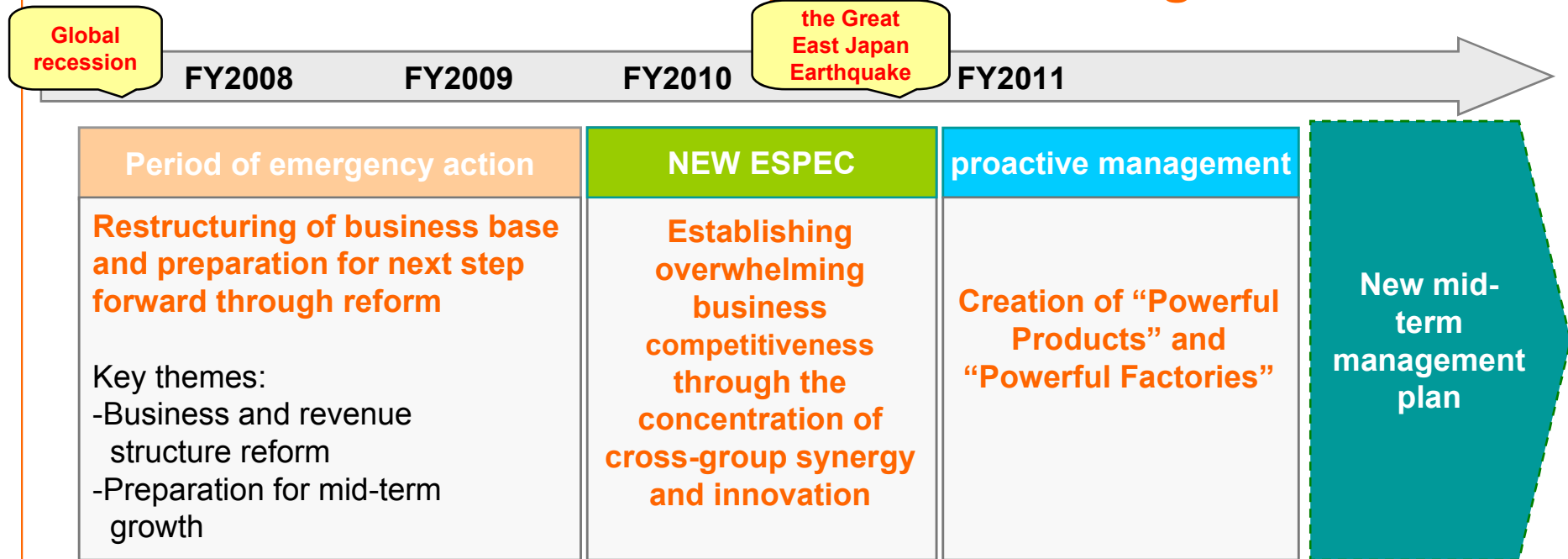
## Net income and total cash dividend

\*Consolidated dividend payout ratio in parentheses.



# Toward Sustained Growth and Development

**Take green innovation as a golden business opportunity to affect a shift to more “proactive management.”**



■ The mid-term management plan will be revised and made public when future prospects become clearer.

**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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**General Affairs & Personnel Department**



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*Reference*



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## *Company and Business Profile*

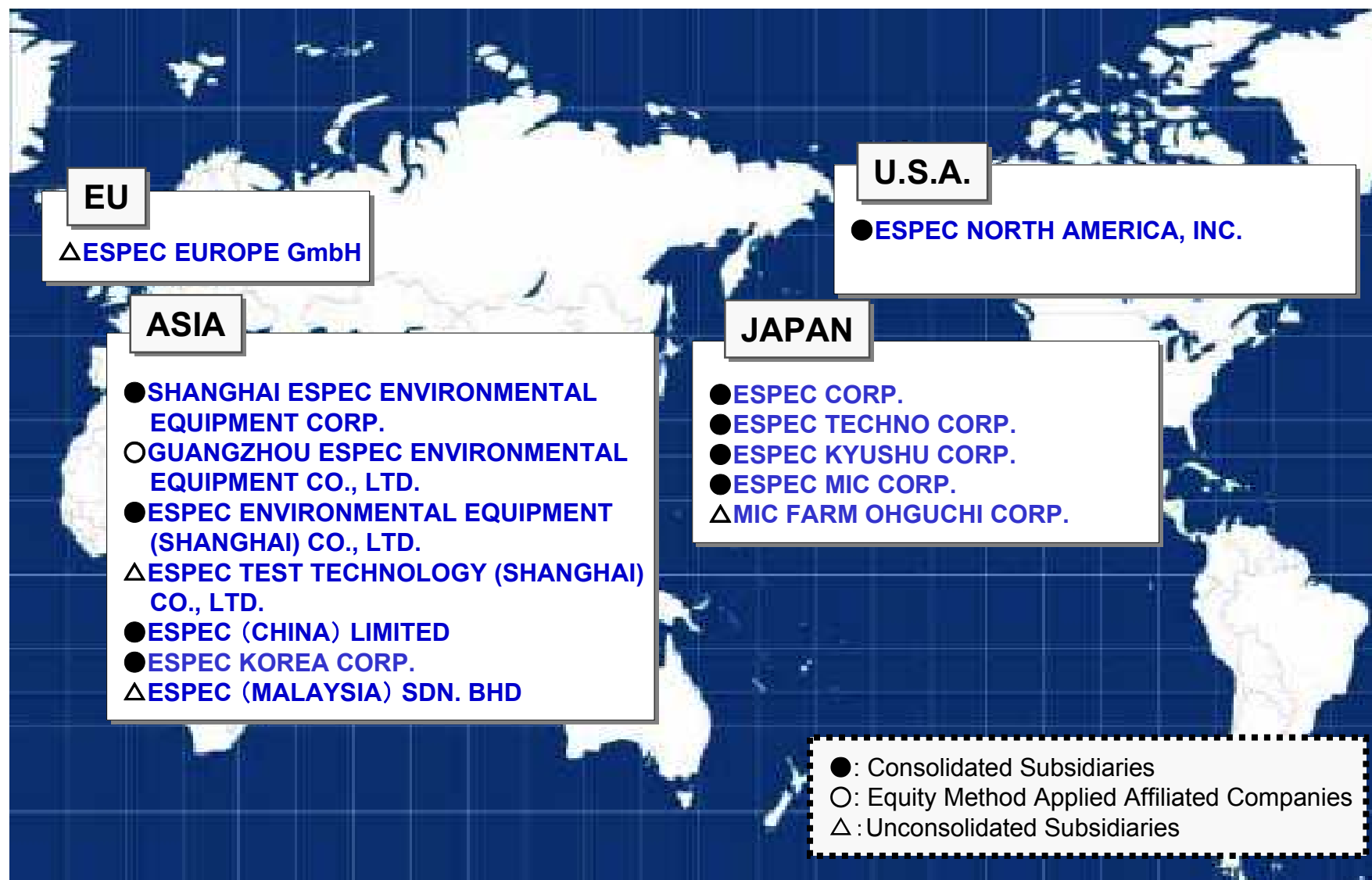


# Company Profile

<b>Name</b>	<b>ESPEC CORP.</b>
<b>Head Office</b>	<b>3-5-6, Tenjinbashi, Kita-ku, Osaka</b>
<b>Represented By</b>	<b>Masaaki Ishida</b>
<b>Established</b>	<b>July 25,1947</b>
<b>Incorporated</b>	<b>January 13,1954</b>
<b>Paid-up Capital</b>	<b>¥6,895Million</b>
<b>Shares Issued</b>	<b>23,781,394 Shares</b>
<b>Employees</b>	<b>1,298 (consolidated)</b>
<b>Main Business</b>	<b>Manufacture and Sales of Environmental Test Chambers, Semiconductor Equipment, FPD Equipment and Vegetation Factories, After-sales Service and Commissioned Tests</b>

**(As of March 31, 2011)**

# Global Network



(As of March 31, 2011)

# History of Environmental Test

## What is Environmental Test

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

### <During the WW II >

Environmental test was standardized in the United States for stabilizing and improving quality of military supplies.



### <Postwar>

Environmental test was JIS standardized in Japan for stabilizing and improving quality of consumer products.



### <Present>

Demand for environmental test has increased due to increased use of electronic parts, shortened development period, and pursuit for lower cost and higher quality.

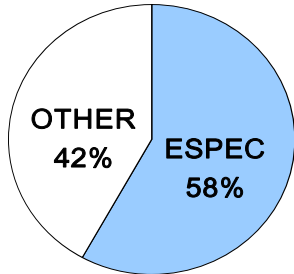


Japan's First Environmental Test Chamber



Low temperature & humidity chamber "Lucifer" (1961)

To domestic market share No. 1



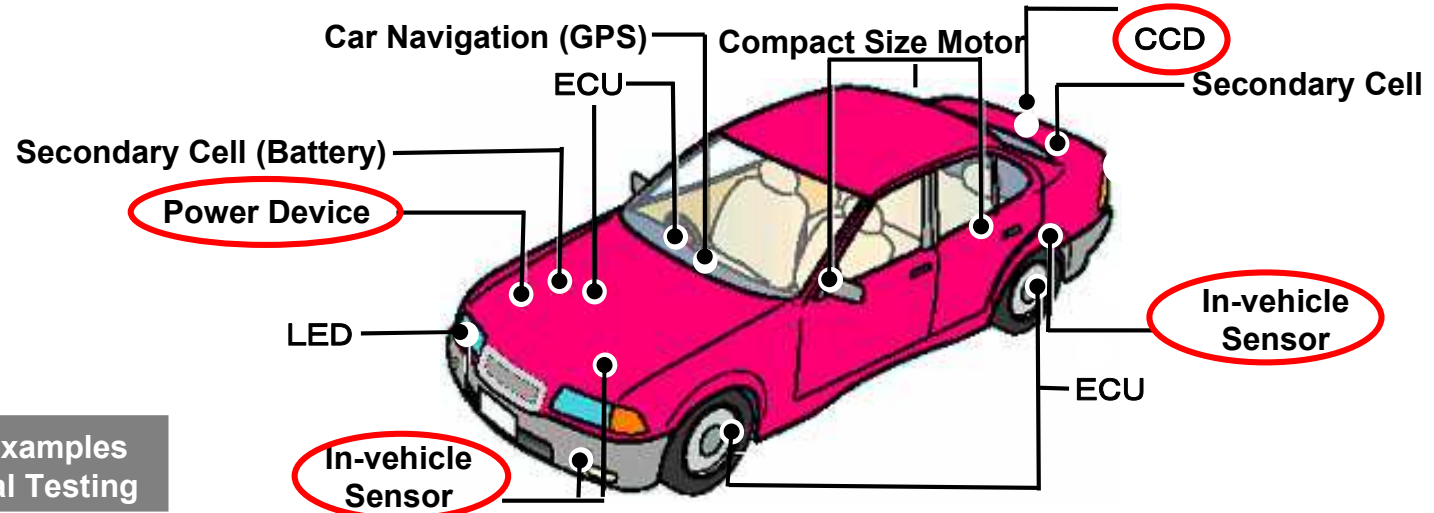
※Based on company estimates (2009)






Temperature & humidity chamber "Platinous K series" (1997)

[Equipment Business]

Usage Case with Environmental Test Chamber



Representative Examples for Environmental Testing

Device	Process/Test Condition		Our Products
<b>【Power Device】</b> 	Inspection	■ Thermal shock test: $-40^{\circ}\text{C} \leftrightarrow +125^{\circ}\text{C}$	Thermal shock chamber
		■ left under high temperature: $+175^{\circ}\text{C}$ , $+85^{\circ}\text{C}$	(Compact size) Oven
		■ Burn-in test	Burn-in chamber
<b>【In-vehicle Sensor】</b> 	Inspection	■ Temperature cycle test of board: $-40^{\circ}\text{C} \leftrightarrow +110^{\circ}\text{C}$	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 : $-30^{\circ}\text{C} \leftrightarrow +80^{\circ}\text{C}$ , $-55^{\circ}\text{C} \leftrightarrow +155^{\circ}\text{C}$	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 : $-40^{\circ}\text{C} \leftrightarrow +125^{\circ}\text{C}$ , $-20^{\circ}\text{C} \leftrightarrow +85^{\circ}\text{C}$	Thermal shock chamber	

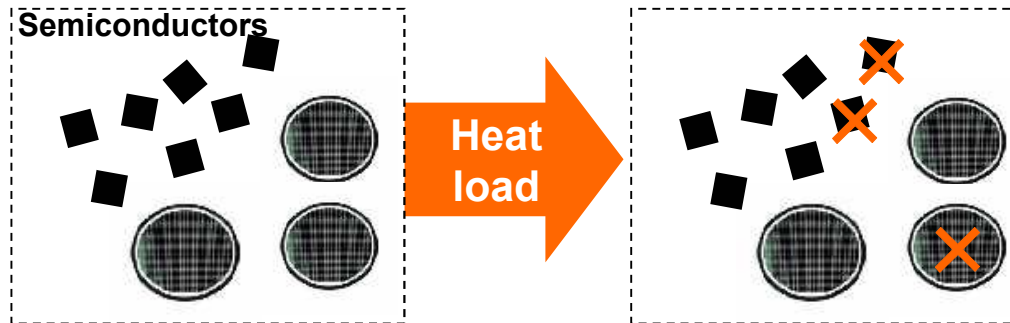
# [Equipment Business] Usage Case with Semiconductor Equipment

## Screening

Used for inspection in the manufacture of semiconductor devices to ensure product reliability suitable for mass production



Burn-in chamber



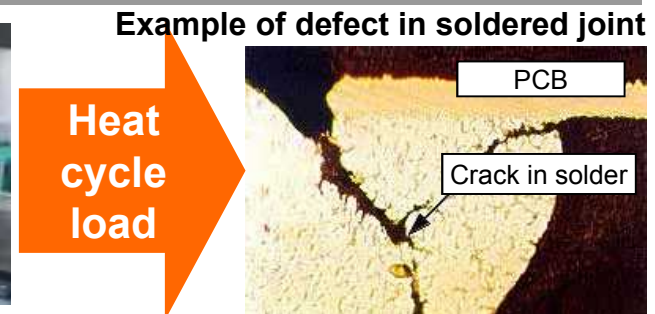
Elimination of latent early failures

## Reliability Evaluation

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

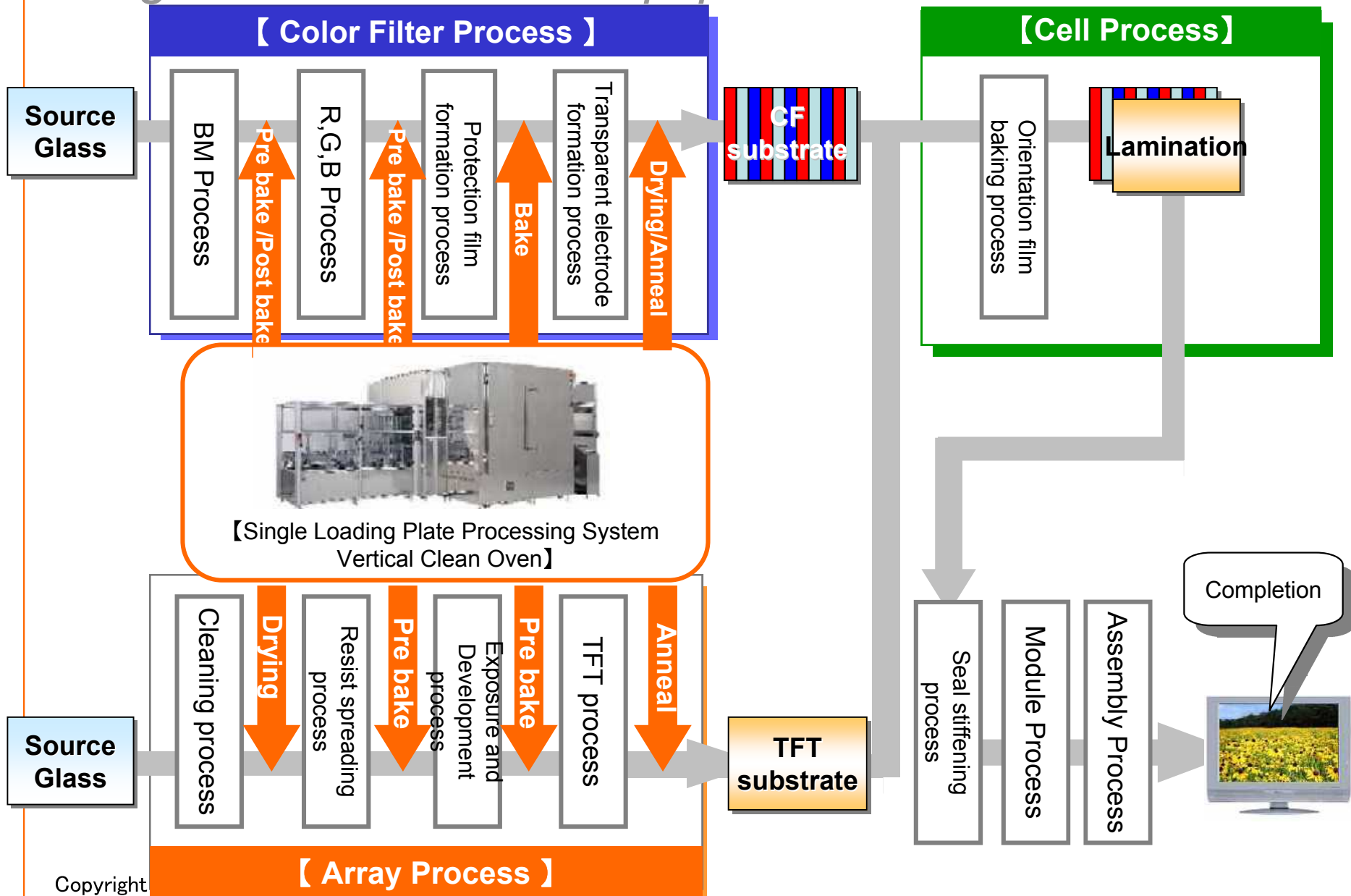


Conductor resistance evaluation system



Electrical evaluation of reliability of joints in electronic parts

# [Equipment Business] Usage Case with FPD Equipment





# [Service Business]

## After Service and Engineering

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

- Well-developed domestic and overseas networks
- Technical service available around-the-clock

## Commissioned Test and Facility Rental

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

- The company has four commissioned test centers in Japan (Utsunomiya, Toyota, Kariya and Kobe).
- These centers are IECQ-approved independent testing laboratories that meet ISO/IEC17025 standards.
- The centers are also recognized as official calibration facilities under the Japan Calibration Service System (JCSS).



**【Commissioned test center in Kobe】**



**【 Test conducted by a staff member】**

## [Other Business]

### Forest Recovery

#### ■ Seedling-based forest recovery technology

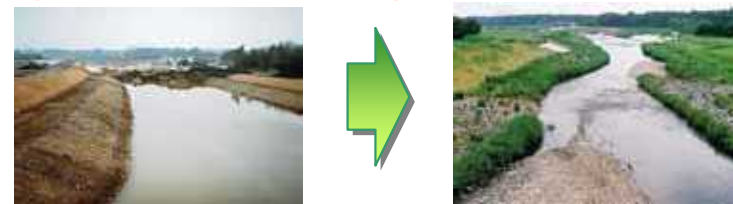
Recovery of local forest by selecting species and planting out seedlings using potential natural vegetation data.



### Waterfront Recovery

#### ■ Bestmann plant-based waterfront recovery system

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



### Urban Greening

#### ■ Unit greening system

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



### Plant Factory

#### ■ Plant production and propagation system

Provision of various cultivation environments employing advanced environmental control technologies to control light, temperature, humidity, carbon dioxide, etc.

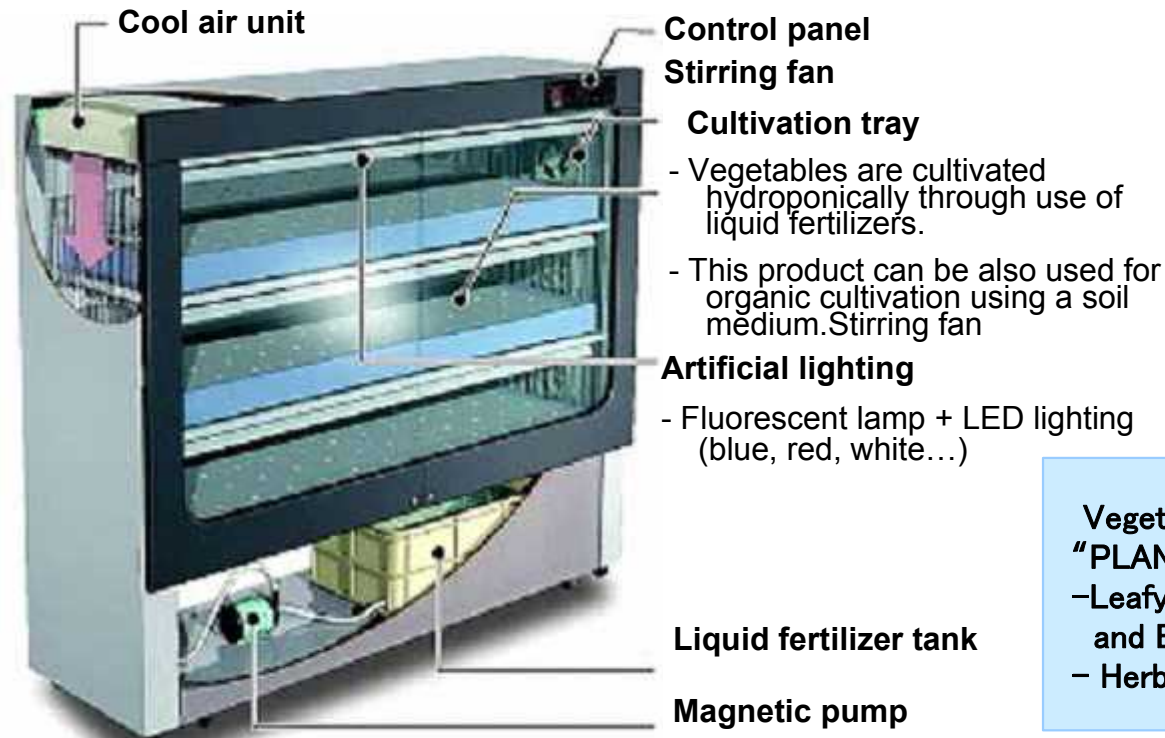


## [Other Business] Usage Case with plant factory

Plant factories are attracting greater attention against the backdrop of the growing awareness of food safety/security among consumers and because of concern over the increase of extreme weather, which is considered a by-product of global warming.

### Vegetable growing system "PLANTCELLAR"

- This product employs a hydroponic culture system that grows vegetables in a cleaner environment without soil.
- Due to its compact size, this product fits comfortably into limited space within a restaurant or store.
- Vegetables of uniform quality can be easily grown even without specialized knowledge.



Artificial lighting: Fluorescent lamp + LED lighting (red)

Vegetables that can be grown using the "PLANTCELLAR"

- Leafy vegetables, such as leaf lettuce and Boston lettuce
- Herbs, such as basil and Italian parsley