

A background image showing various industrial components, including what appears to be a large cylindrical machine part and several smaller precision parts, all in a light blue and white color scheme. The Ferro Tec logo is faintly visible in the upper left corner of this image.

Ferro Tec Corporation

Results for the 1st half of the fiscal year ending March 31, 2016

November 26, 2015

(JASDAQ 6890)

<http://www.ferrotec.co.jp/>

1. This 1st half results cover six months period from April to September of Ferrotec, and six months period from Jan. to June of consolidated subsidiaries and affiliated companies included in investment profit loss in equity method.
2. These materials were prepared for the purpose of providing information regarding the company's results of operations for the 1st half of the fiscal year ending March 31, 2016.
3. These materials were prepared based on information available as of Sep. 30, 2015. All opinions, forecasts and other forward-looking statements are based on management's judgments in accordance with materials available at that time and may be changed without prior notice.



First Half of FY March 2016 Financial Results

Consolidated Financial Summary



¥ in millions	FY March 2015 1 st half		FY March 2016 1 st half		YOY	
	Amount	Pct. of sales(%)	Amount	Pct. of sales(%)	Amount	Pct. of sales(%)
Net sales	29,238	100.0	33,615	100.0	4,377	15.0
Cost of sales	22,561	77.2	25,067	74.6	2,506	11.1
Gross profit	6,677	22.8	8,548	25.4	1,871	28.0
SG&A expenses	5,477	18.7	6,605	19.6	1,128	20.6
Operating profit	1,199	4.1	1,942	5.8	743	62.0
Non-operating income	236	0.8	415	1.2	179	75.8
Non-operating expense	602	2.1	469	1.4	△ 133	△ 22.1
Ordinary profit	834	2.9	1,888	5.6	1,054	126.4
Extraordinary income	2	0.0	29	0.1	27	1,350.0
Extraordinary loss	56	0.2	54	0.2	△ 2	△ 3.6
Net profit	354	1.2	1,202	3.6	848	239.1
Capital investment	1,314	-	1,936	-	622	47.3
Depreciation	1,899	-	2,119	-	220	11.6

Consolidated Financial Summary



¥ in millions	FY March 2016 1 st half	
	Amount	Pct. of sales(%)
Net sales	33,615	100.0
Cost of sales	25,067	74.6
Gross profit	8,548	25.4
SG&A expenses	6,605	19.6
Operating profit	1,942	5.8
Non-operating income	415	1.2
Non-operating expense	469	1.4
Ordinary profit	1,888	5.6
Extraordinary income	29	0.1
Extraordinary loss	54	0.2
Income before income tax	1,864	5.5
Income taxes	681	2.0
Net profit	1,202	3.6

Big increase in sales from one year earlier due to higher sales in the equipment-related business and electronic device business

Small increase as a pct. of sales because of foreign exchange rate changes and addition to allowance for doubtful accounts

Exchange gain ¥ 243 million

Mainly loss on disposal of equipment associated with the renovation of head office factory

Net Sales and Operating Profits by Segment



Net sales (¥ in millions)	FY March 2015 1 st half		FY March 2016 1 st half		YOY	
	Amount	Pct. Of Sales(%)	Amount	Pct. Of Sales(%)	Difference	Pct. change
Equipment-related	12,948	44.3	15,491	46.1	2,543	19.6
Electronic device	4,164	14.2	6,466	19.2	2,302	55.3
Photovoltaic-related	10,153	34.7	8,741	26.0	△ 1,412	△ 13.9
Others	1,973	6.8	2,917	8.7	944	47.8
Total	29,238	100.0	33,615	100.0	4,377	15.0

Operating income (¥ in millions)	FY March 2015 1 st half		FY March 2016 1 st half		YOY	
	Amount	Pct. Of Sales(%)	Amount	Pct. Of Sales(%)	Difference	Pct. change
Equipment-related	918	7.1	1,436	9.3	518	56.4
Electronic device	604	14.5	1,218	18.8	614	101.7
Photovoltaic-related	△247	-	△ 737	-	△ 490	-
Others	△52	-	63	2.2	115	-
Corporate & elimination	△24	-	△ 38	-	△ 14	-
Total	1,199	4.1	1,942	5.8	743	62.0

Consolidated Balance Sheet ~Assets~



(¥ in millions)	FY3/15	FY3/16 1H	Difference
Current assets	44,418	51,597	7,179
Cash & deposits	10,517	13,072	2,555
Note & accounts receivable	16,971	19,127	2,156
Inventory	14,135	17,120	2,985
Fixed assets	34,992	35,363	371
Tangible fixed assets	27,739	27,945	206
Building	7,287	7,096	△ 191
Equipment & machinery	9,995	10,833	838
Tools, furniture, and fixture	6,394	6,337	△ 57
Land	638	634	△ 4
Intangible fixed assets	1,875	2,169	294
Goodwill	530	760	230
Investments & other assets	5,377	5,248	△ 129
Total assets	79,410	86,960	7,550

【Current assets】

Cash and deposits increased as cash used in investing activities was less than operating cash flows and there was an increase in loans. Receivables and inventories increased because of the acquisition of ADMAP and the growth in sales.

【Main reason for increase in tangible fixed assets】

Mainly assets of ADMAP and the result of capital investment in subsidiaries in China

【Intangible fixed assets】

ADMAP goodwill amortisation amount

: ¥ 295 million

Goodwill amortisation amount :

1st half(actual) : ¥ 70 million

2nd half(plan): ¥ 85 million

Consolidated Balance Sheet

~Liabilities and net worth~



(¥ in millions)	FY3/15	FY3/16 1H	Difference
Current liabilities	31,535	34,670	3,135
Notes and accounts payable	13,241	16,107	2,866
Short-term debt	8,352	7,320	Δ 1,032
Current portion of long-term borrowings	3,321	3,779	458
Fixed liabilities	8,443	11,109	2,666
Long-term debt	5,239	7,572	2,333
Total liabilities	39,979	45,779	5,800
Net Assets	39,431	41,181	1,750
Shareholder's equity	28,286	29,242	956
Total adjustment	10,559	11,055	496
Minority interests	575	866	291
Total liabilities & shareholder's equity	79,410	86,960	7,550

【 Major reason for increase in current liabilities 】

Mainly due to increase in payables, but also the result of the inclusion of ADMAP and more purchases of materials along with the growth in sales

【 Interest-being debt 】

Short-term debt +Current portion of long-term borrowings	11,101 million(11,674*)
Long-term debt	7,572 million(5,240)

Total 18,673 million(16,914)

【 Net interest-being debt 5,600 million(6,396)】

*Parentheses represent the figures as of end-FY3/15

【Net assets】

Shareholders' equity:

Net income : 1,202 million

Dividends : Δ246 million

Foreign currency translation adjustments : 610 million

Consolidated Cash Flow



(¥ in million)	FY3/15 1H	FY3/16 1H
Cash flow from operating activities	4,373	3,596
Income before income taxes	780	1,864
Depreciation	1,899	2,119
Exchange gain & loss (Δ : gain)	111	Δ90
Changes in notes & accounts receivable (Δ : increase)	Δ1,067	Δ941
Changes in inventories (Δ : increase)	Δ83	Δ2,390
Changes in accounts payable (Δ : decrease)	2,585	1,713
Others	177	1,313
Cash flow from investing activities	Δ1,123	Δ2,316
Payments for purchase of tangible fixed assets	Δ1,314	Δ1,936
Proceeds from sales of tangible fixed assets	327	196
Payments for purchase of marketable securities	Δ92	Δ0
Payments for purchase of shares of subsidiaries accompanying changes in the scope of consolidation	-	Δ221
Others	Δ44	Δ355
Cash flow from financing activities	Δ2,513	1,164
Changes in short-term borrowing	Δ960	Δ1,314
Proceeds from long-term debt	200	4,500
Payments of long-term debt	Δ1,531	Δ1,723
Payments for dividend	Δ184	Δ248
Others	Δ38	Δ51
Changes in cash & cash equivalents	467	2,554
Cash and cash equivalents, beginning of year	7,550	10,517
Cash and cash equivalents, end of year	8,018	13,072

【Operating CF】	
Income before income tax + Depreciation :	3,984million
Decrease in operating CF due to increased accounts receivable :	Δ941million
Decrease in operating CF due to increased inventories :	Δ2,390million
Increase in operating CF due to increased accounts payable :	1,713million

【Investing CF】	
Main content of payments for tangible fixed assets acquired	
• Shanghai subsidiary :	85million
• Hangzhou subsidiary :	561million
• Yinchuan subsidiary :	946million

【Financing CF】	
• Increase/decrease in short-term debt :	Δ1,314million
• Increase/decrease in long-term debt :	2,777million

Full-Year Forecast



(¥ in millions)	FY3/15	FY3/16(E)	YoY(%)
Net sales	59,078	66,000	11.7
Operating profit	1,671	3,400	103.5
Ordinary profit	2,030	3,000	47.8
Net profit	△ 2,132	1,900	-
Capital investment	3,375	3,300	△ 2.2
Depreciation	3,964	4,200	6.0

Note: Exchange rate FY3/15⇒FY3/16(assumed rate) : ¥ 106.46 ⇒ ¥ 120.00 / US dollar ¥ 17.26 ⇒ ¥ 19.50 / RMB
 Capital investment is based on cash flow considering unprojected large-scale capital investment and accounts payable facilities at the end of previous year.

Business Forecast (sales by segment)



(¥ in millions)	FY3/15	FY3/16(E)	YOY(%)
Equipment-related	26,566	30,000	12.9
Vacuum Feedthroughs	7,519	6,857	Δ 8.8
Quartz	5,169	7,085	37.1
Ceramics	5,182	5,800	11.9
CVD-SiC	-	1,524	-
EB-Gun, LED	3,905	3,971	1.7
Semiconductor wafer	4,791	4,763	Δ 0.6
Electronic device	9,679	12,500	29.1
Thermo-electric module	8,932	11,708	31.1
Ferrofluid, others	748	792	5.9
Photovoltaic-related	17,948	17,400	Δ 3.1
Quartz crucibles	3,365	3,314	Δ 1.5
Solar silicon	11,458	9,641	Δ 15.9
PV manufacturing Equip.	452	353	Δ 21.9
Solar cell, Others	2,674	4,092	53.0
Others	4,884	6,100	24.9
Total	59,078	66,000	11.7



Status by Segment and Outlook

Segment



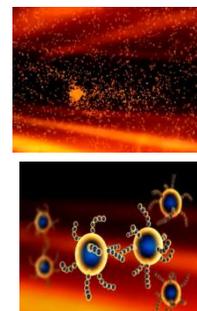
Vacuum feedthroughs



Quartz



Ferrofluid



PV silicon (Ingot) [OEM]

Single crystal ingot



Multi-crystal ingot



PV wafer



Ceramics



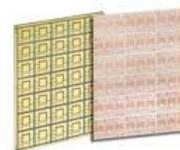
CVD-SiC



Thermo-electric module



Substrates for power semiconductor



Consumable

Quartz crucible



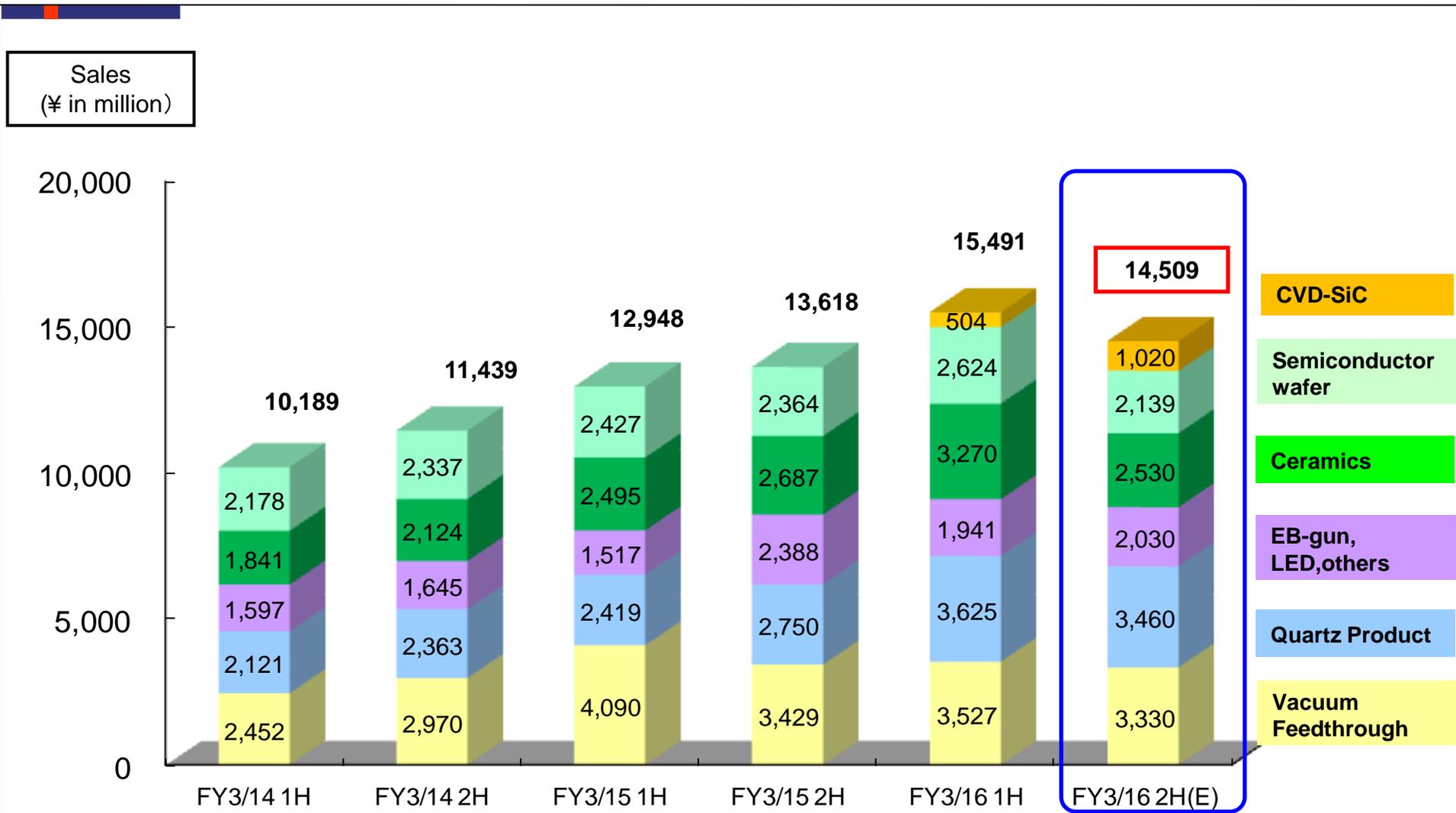
Hot zone

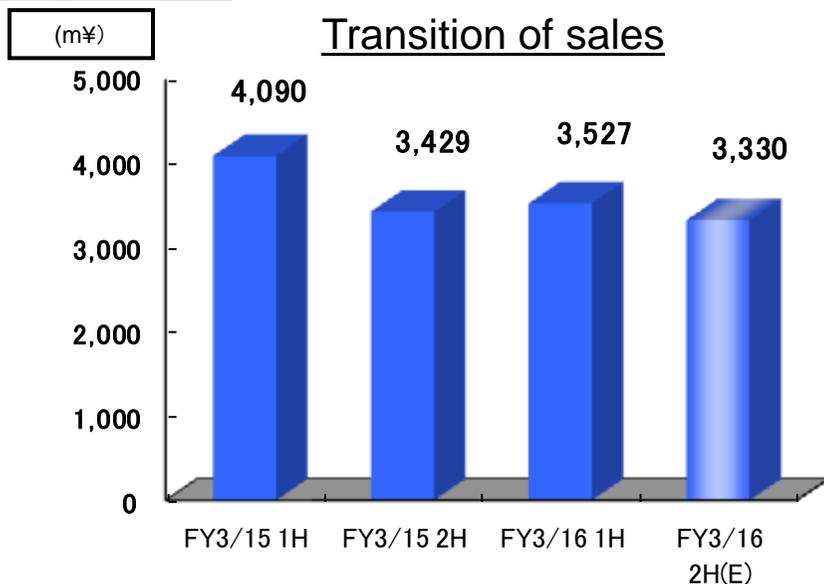


Vessel

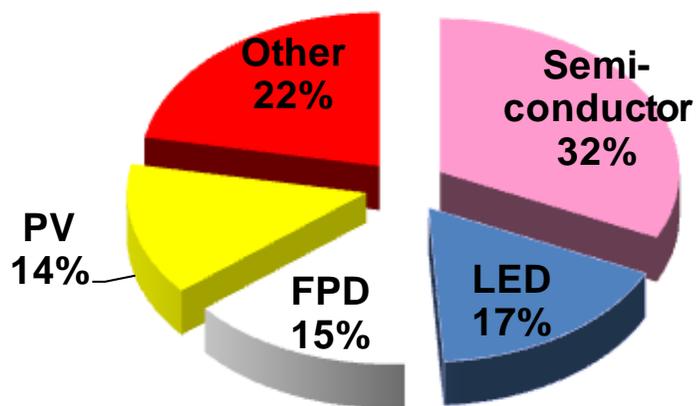


Equipment-related Segment





Sales by category



Note) Other: Vacuum feedthrough equipment for industrial use, aviation, medical care, science, etc.

1. Status of 1st half of FY3/16

- The semiconductor market continued to expand gently as companies made investments.
- In the FPD market, Japanese and Chinese companies started to make investments in production equipment for small and midsize panels.
- Short-term capital investment in the European solar power market

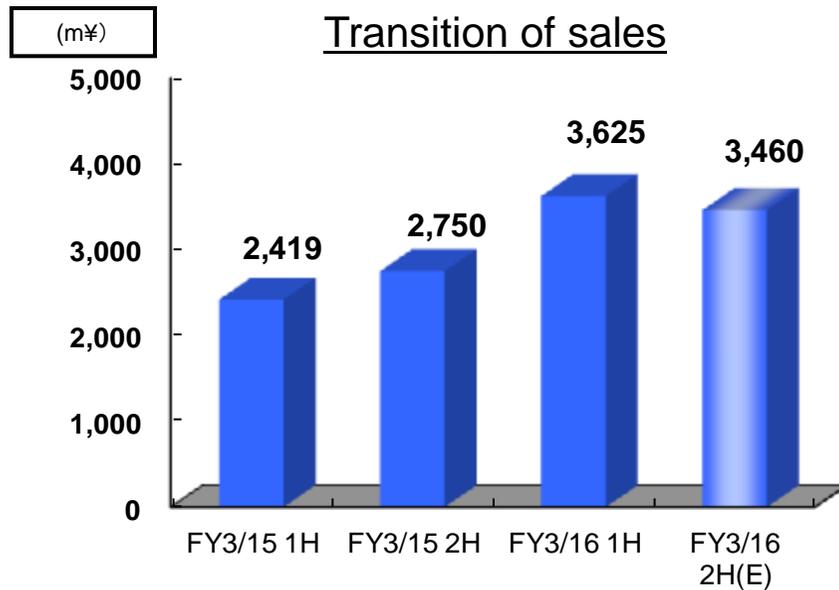
2. Outlook for 2nd half of FY3/16

- Outlook for semiconductor capital investment is unclear
- In the FPD market, Japanese and Chinese companies continue to make investments and investments by Korean companies are also expected.
- Expect strong demand for robots used in FPD applications

[Measures]

- Continue strengthening relationship with manufacturers of semiconductor production equipment
- Reinforce activities involving production for other companies and subassembly products
- Bolstering of sales activities in China, Korea and Taiwan; strengthen after-sales services in these countries

Status and Outlook for Quartz Products

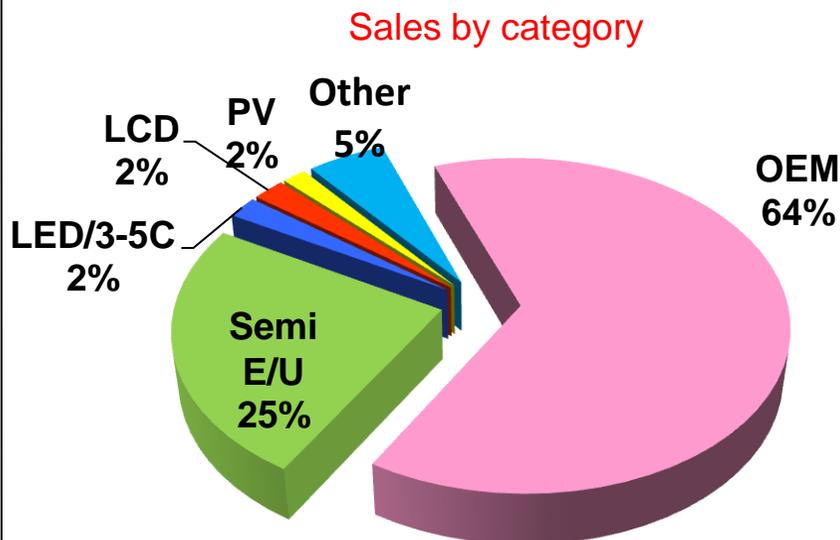


1. Status of 1st half of FY3/16

- Continuation of orders from a major US OEM customer(SWP)
- Growth of major OEM in Japan slowly peaked out
- Capacity utilization rates remained high at Japanese and Asian companies
- Increased production capacity and met customers' demands for quick deliveries

2. Outlook for 2nd half of FY3/16

- Expect no change in orders from a major US OEM customer (SWP)
- Decline in orders at large OEM in Japan in third quarter but anticipate a recovery in the fourth quarter
- Decline in capacity utilization rates at Japanese and Asian companies
- Manufacturers in Taiwan starting to use silicon wafers of the company
- Supply-demand dynamics in the semiconductor industry are strong in some product sectors and weak in others

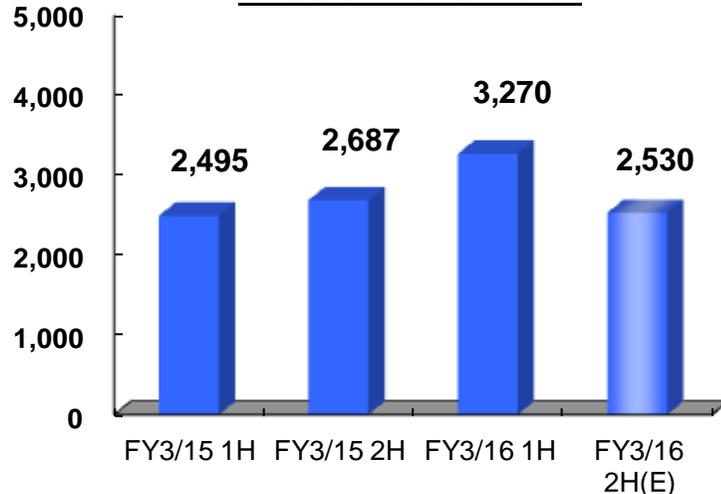


[Measures]

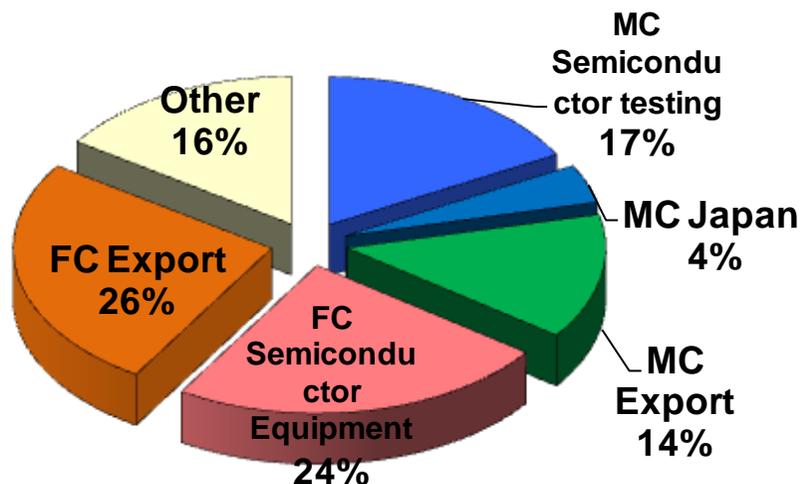
- Make investments for more people and equipment at factories
- Start volume production of next-generation silicon wafers
- Continue to meet demand in Taiwan for customization

(m¥)

Transition of sales



Sales by category



FC (Fine Ceramics), MC (Machinable Ceramics "Photoveel")

1. Status of 1st half (Jan-Jun) of FY 3/16

Machinable ceramics "Photoveel"

- Much higher sales early in the first half backed by strong demand associated with NAND/Flash memories in Japan. For logic devices, strong orders overseas associated with new smartphone models; automotive sector orders were supported by steady demand for automobiles.

Fine ceramics

- Very strong demand from certain customers for components used in new equipment due to semiconductor industry progress with miniaturisation and growth in production

2. Outlook for 2nd half (Jul-Dec) of FY 3/16

Machinable ceramics "Photoveel"

- Demand in Japan involving memories is declining but expect logic sector sales growth starting in the fourth quarter to large overseas foundries associated with next-generation smartphones.

Fine ceramics

- Orders started declining in the fall of 2015 as large semiconductor manufacturers postponed investments for miniaturisation and higher capacity.
- Foresee no change in sales growth despite a temporary downturn in demand in the United States

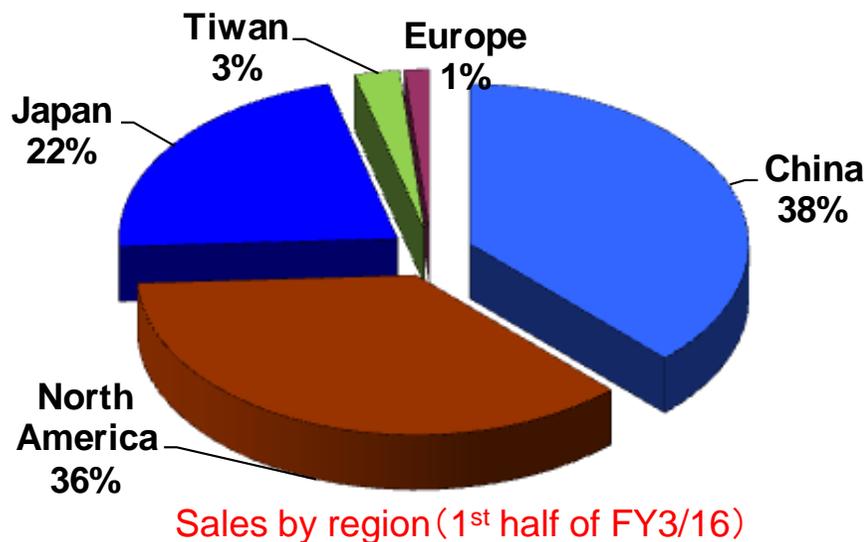
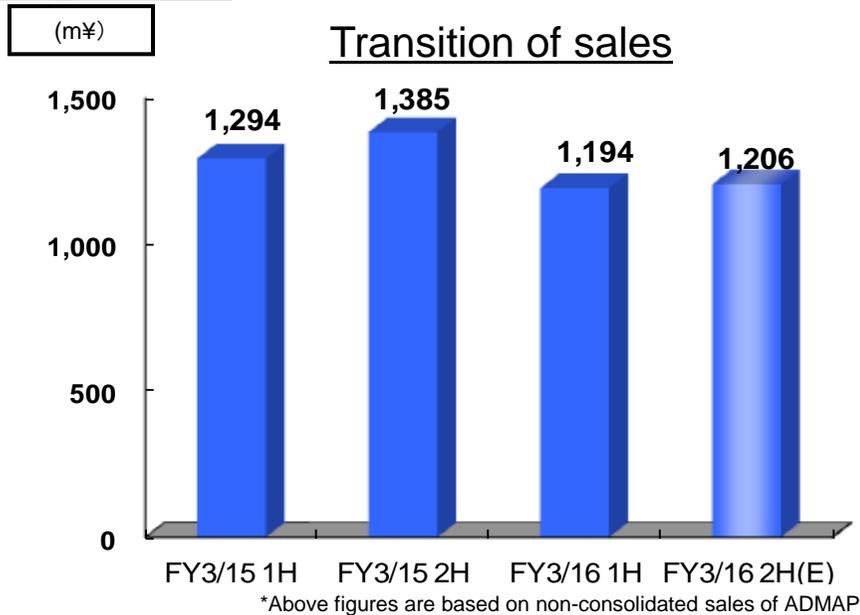
3. Continuous sales policy

<Machinable ceramics >

- Develop and sell a next-generation high-precision production technology to meet changing requirements for wafer circuit inspection equipment.

< Fine ceramics >

- Plan to raise production capacity to meet expected growth in demand for parts used in new equipment needed as companies make more progress with miniaturisation.



1. Status of 1st half of FY3/16

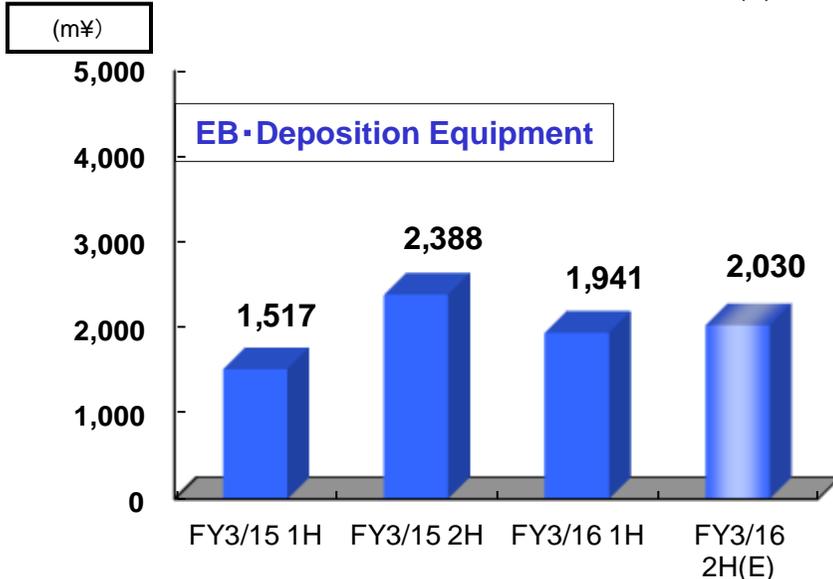
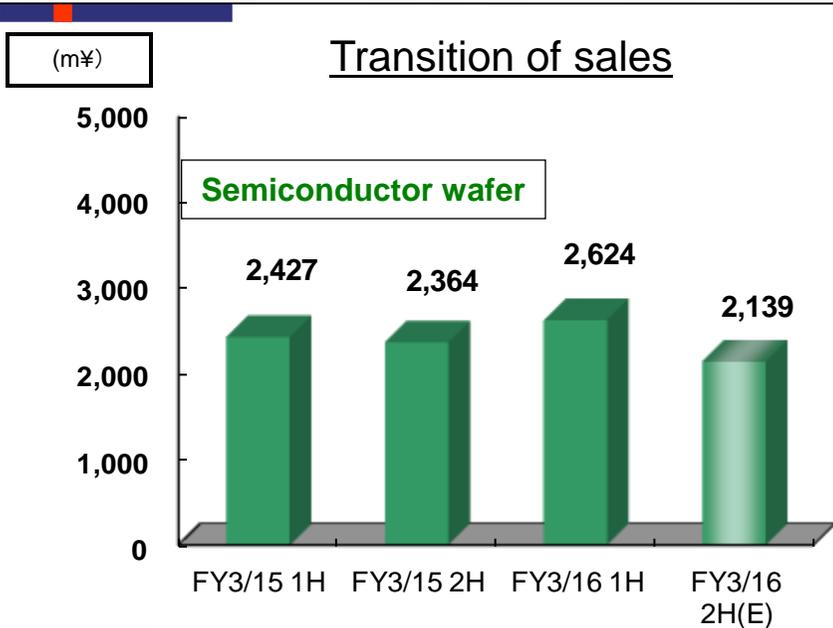
- Firm sales to large US companies despite inventory reductions at some companies
- Sales to large Japanese companies started declining in the second quarter
- Sales to large Asian companies were down as they postponed investments
- Received order from a large equipment manufacturer for a prototype OEM component; may result in second half sales

2. Outlook for 2nd half of FY3/16

- Expect sales to large US companies to remain firm.
- Signs are emerging of a recovery in Japan and Asia starting in the fourth quarter
- Expect a full-scale rebound in semiconductor industry investments as companies end their wait-and-see stance

[Measures]

- Capture more synergies with the involvement of group companies.
- Build a framework for quickly performing development and prototype activities.
- Establish a manufacturing infrastructure capable of meeting the rapid growth in demand for OEM parts from major equipment manufacturers.
- Aggressively pursue opportunities outside the semiconductor market.



Semiconductor wafer:

1. Status of 1st half of FY 3/16

- Firm sales of the company’s own brand products due to favorable market conditions
- Sales of OEM products decreased

2. Outlook for 2nd half of FY 3/16

- Sales of the company’s own brand products are strong but demands for discounts are increasing.
- Started production for OEM customers in Europe
- Increasingly broader minor slowdown in sales of OEM products

[Measures]

- Building frameworks for technology, product quality and other services

EB gun and Deposition equipment:

1. Status of 1st half of FY 3/16

- Solid orders for applications involving wireless communication chips
- Weaker corporate customers continue to disappear as stronger companies remain

2. Outlook for 2nd half of FY 3/16

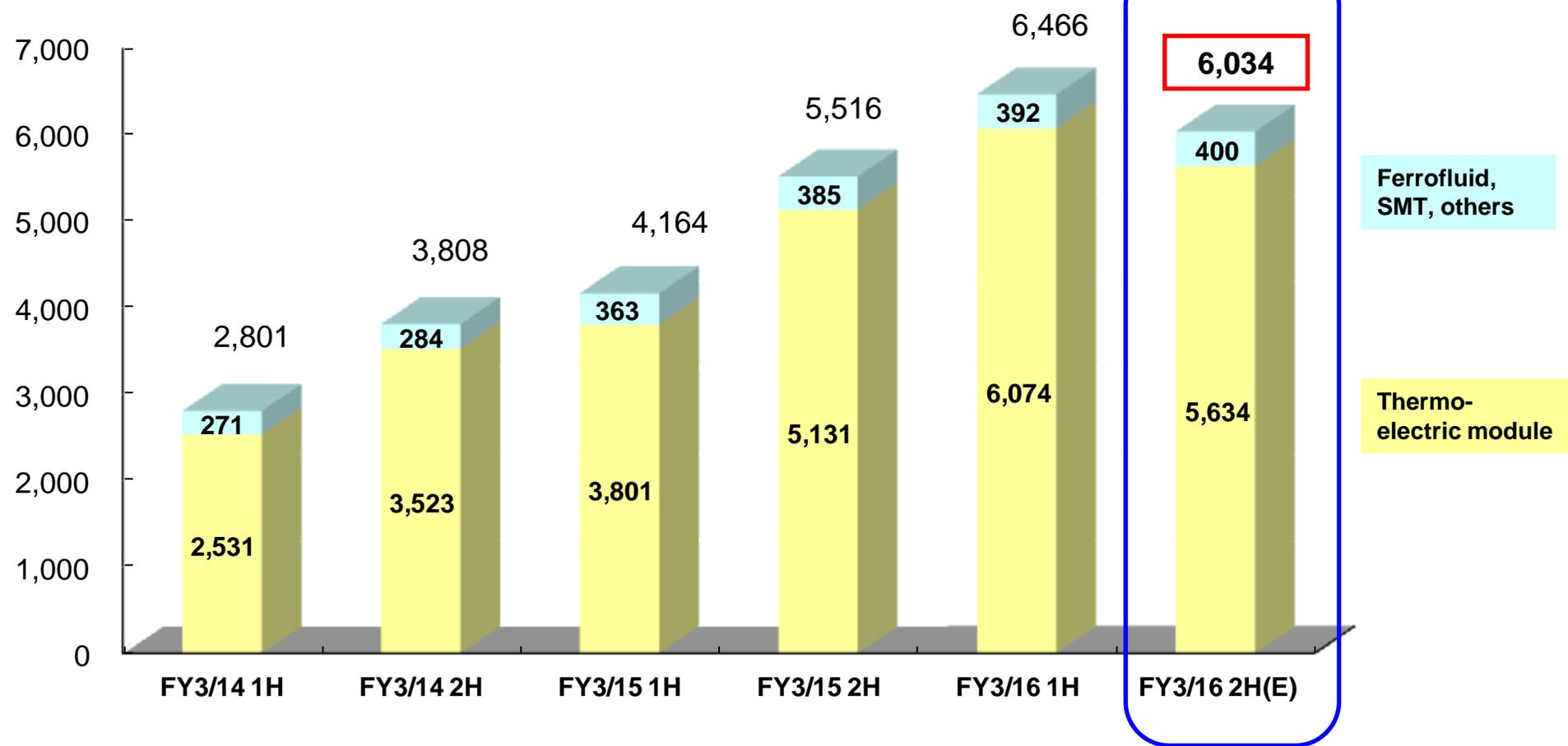
- Expect no growth in markets for wireless communication chips and LEDs
- Anticipate strong demand in the market for optical EB guns

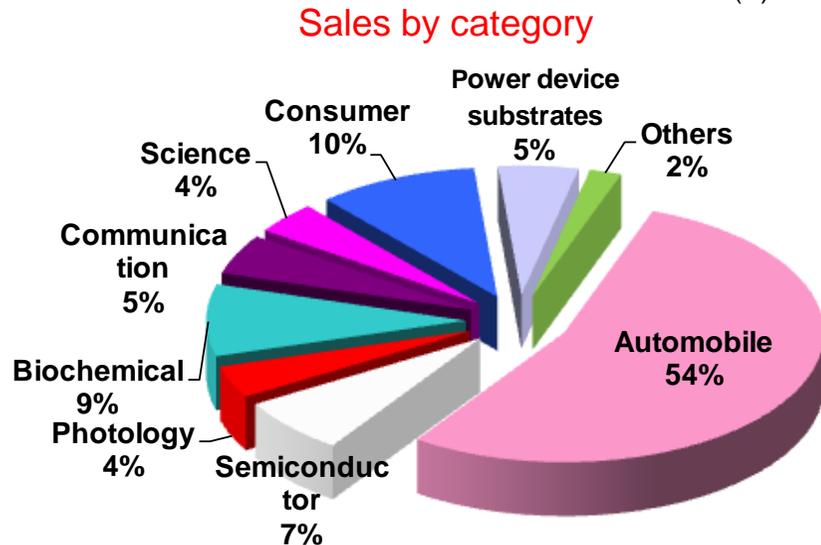
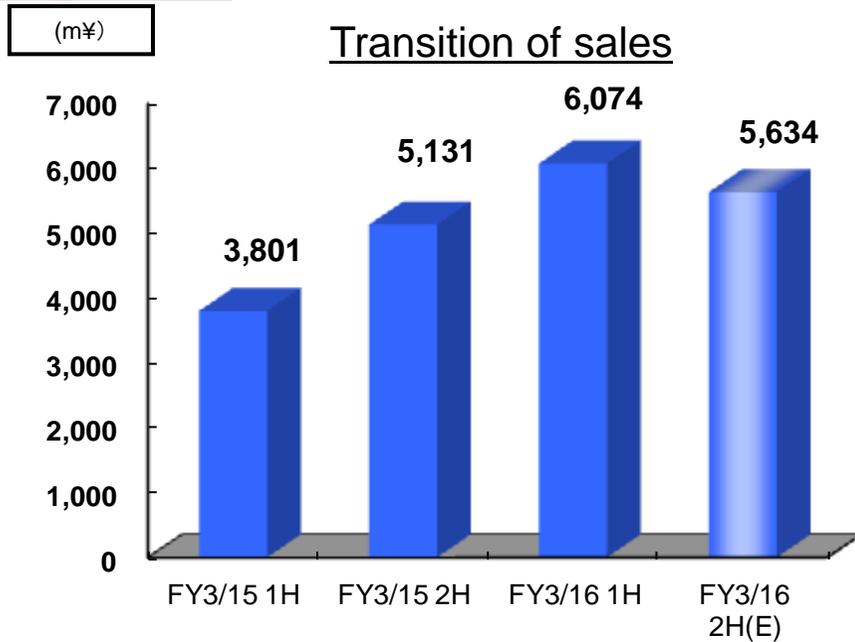
[Measures]

- Deposition equipment: Sales activities focusing on wireless communications and power devices
- EB guns: Concentrating on sales to research facilities

Electronic Device Segment

Sales
(¥ in million)





1. Status of 1st half of FY3/16

Automobile Seat Application

- Strong performance, mainly in North America, and demand increased

Other Applications

- Strong performances by consumer applications and the semiconductor sector
- Sales remained strong for bio/medical and general industrial applications.
- Power device substrate sales have started climbing as the number of models using them increased.

2. Outlook for 2nd half of FY3/16

Automobile Seat Application

- Expect same sales as in first half as North America demand remains solid

Other Applications

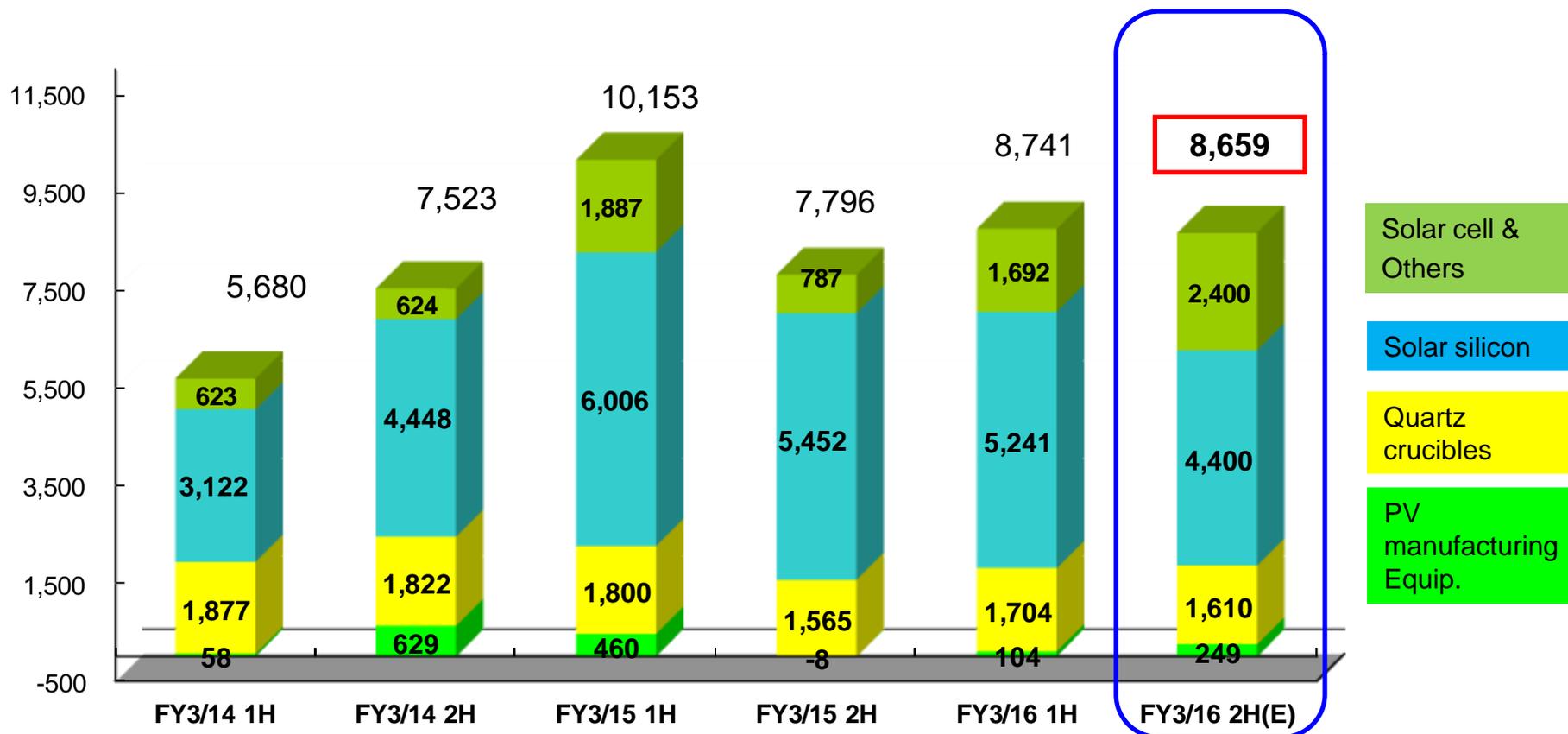
- Consumer product application demand is declining somewhat as one-time increase in demand has ended, but the number of potential orders is increasing
- In China, communication equipment-related demand is benefiting from the switch from G3 to G4.
- Expect steady orders for bio/medical and general industrial applications
- Market for power device substrates is soft but the number of prospective orders is increasing

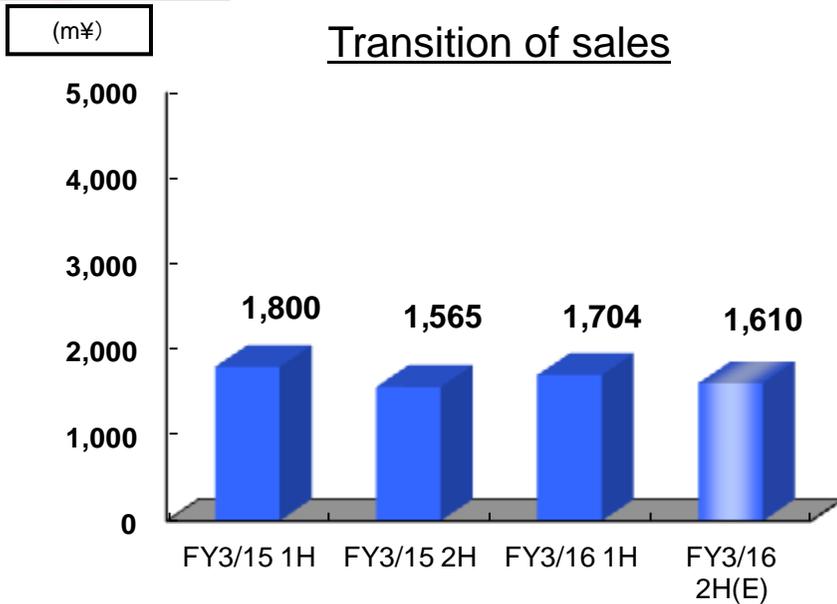
[Measures]

- Continue providing support for products by using customer solution projects.
- Enlarge the lineup of new modules and embedded products.
- Making capital investments to increase production and cut costs
- Continuing to make investments for the volume production of power device substrates

Photovoltaic-related Segment

Sales
(¥ in million)





Single-crystal quartz crucible



Multi-crystal vessel

1. Status of 1st half of FY3/16

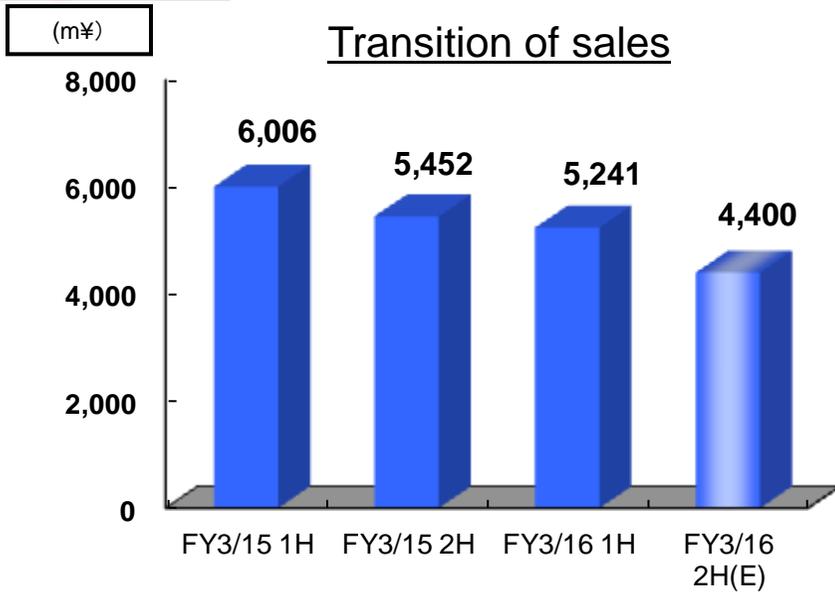
- Demand increased along with the recovery of customers' sales and earnings.
- Recovery in profitability of multi-crystal vessels due to higher multi-crystal silicon demand
- Demand for single-crystal crucibles also increased.
- Basically no change in sales from one year earlier, including in the semiconductor sector

2. Outlook for 2nd half of FY3/16

- Anticipate slow growth in demand as Chinese companies purchase more equipment.
- Strong small-diameter performance due to benefits of the transfer to the Yinchuan plant and launch of an improved semiconductor crucible
- Goal is small-diameter crucible market share of 50%; customers are currently evaluating medium-diameter (24 inch) crucibles
- Expect a slow recovery in sales of multi-crystal vessels
- The multi-crystal market in China is advancing to the large G6 size.
- Foresee gentle growth in sales in the single-crystal crucible, multi-crystal vessel and small-diameter semiconductor wafer categories

[Measures]

- Raise prices of single-crystal crucibles with a longer life to reflect the higher cost.
- Use the full-scale production at the Yinchuan plant to become more cost competitive.
- Continue to supply authorized products to semiconductor manufacturers in Japan.
- Improve quality by automating an automated coating technology.



Single crystal ingot



Multi-crystal ingot



PV wafer

1. Status of 1st half of FY3/16

- OEM demand was steady but demands for cost reductions are still intense.
- Ingots accounted for most sales of multi-crystal products.
- Global solar installations are growing and the Chinese government's goal is to increase solar power significantly.
- Demand is recovering at Chinese solar panel manufacturers but market conditions were challenging in Japan.

2. Outlook for 2nd half of FY3/16

- Expect lower sales to current OEM customers as they reduce output.
- Expect to start supplying a large volume of products to a new OEM customer
- Heated technology competition for making single-crystal wafers thinner, reducing the amount of oxygen and other advances
- Demands for higher conversion efficiency are also increasing for multi-crystal silicon
- With the Chinese government's backing, China's multi-crystal product market continues to grow and prices are stable.
- No change in outlook for annual global solar installations to climb to 53GW
- The number of solar projects planned in emerging countries is increasing.
- Major solar panel manufacturers have announced plans to expand their engineering, procurement and construction (EPC) operations

[Measures]

- Become more profitable by moving crystal production to the Yinchuan plant.
- Use fixed abrasives to upgrade technology for making wafers thinner.
- Improve the performance of N-type single crystals to meet customers' demands.

Corporate Name	Ferrotec Corporation
Date of Foundation	September 27, 1980
Address	Nihonbashi Plaza Building, 2-3-4, Nihonbashi, Chuo-ku, Tokyo Japan
Listed	JASDAQ (Listed Code : 6890)
President	Akira Yamamura
Business Segment	<ul style="list-style-type: none">• Equipment-related business : Vacuum Feedthrough, Quartz, Ceramics, silicon, wafer processing• PV-related business : PV manufacturing equip, Quartz crucibles, solar silicon• Electronic device business : thermo-electric module, Ferrofluid
Capital	13,201,346thousand JPY
Issued Stock	30,903,702
Related Company	[23 Consolidated Subsidiary] [5 Companies Accounted for by the Equity Method]
Employees	[Consolidated]5,729 [Non-consolidated]131