

A large background image showing various industrial components and machinery, including what appears to be a large cylindrical component and various smaller parts, all in a light blue and white color scheme. The Ferro Tec logo is overlaid on the left side of this image.

Ferro Tec

## Ferrotec Corporation

Results for the fiscal year ended March 31, 2015

May 26, 2015

( JASDAQ 6890 )

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

- 1.This fiscal year results cover twelve months period from April to March of Ferrotec, and twelve months period from Jan. to Dec. of consolidated subsidiaries and affiliated companies included in investment profit loss in equity method.
- 2.This presentation was prepared for the purpose of providing information regarding the company's results of operations for the fiscal year ended March 31, 2015 and is not a solicitation to purchase securities issued by the Company. Please ensure that the decision on whether to make an investment in our Company is made at your own risk.
- 3.These materials were prepared based on information available as of March 31, 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.



## FY March 2015 Financial Results

# Financial highlights



¥ in millions	FY3/14		FY3/15		YoY	
	Amount	Pct. of sales(%)	Amount	Pct. of sales(%)	Amount	Pct. Change(%)
<b>Net sales</b>	44,745	100.0	59,078	100.0	14,333	32.0
Cost of sales	33,925	75.8	45,594	77.2	11,669	34.4
<b>Gross income</b>	10,820	24.2	13,484	22.8	2,664	24.6
SG&A expenses	10,021	22.4	11,813	20.0	1,792	17.9
<b>Operating income</b>	798	1.8	1,671	2.8	873	109.4
Non-operating income	1,924	4.3	1,334	2.3	△590	△30.7
Non-operating expense	1,460	3.3	974	1.6	△486	△33.3
<b>Ordinary income</b>	1,262	2.8	2,030	3.4	768	60.9
Extraordinary income	1,378	3.1	7	0.0	△1,371	△99.5
Extraordinary loss	573	1.3	3,362	5.7	2,789	486.7
<b>Net income</b>	1,391	3.1	△2,132	-	△3,523	-
<b>Capital Investment</b>	3,825	-	3,375	-	△450	△11.8
<b>Depreciation</b>	3,941	-	3,964	-	23	0.6

Note: exchange rate FY3/14⇒FY3/15 : US\$ ¥ 97.99→ ¥ 106.46 RMB ¥15.97→ ¥ 17.26 (Avg. during period)

# Financial highlights



¥ in millions	FY3/15	
	Amount	Pct. of sales(%)
Net sales	59,078	100.0
Cost of sales	45,594	77.2
Gross income	13,484	22.8
SG&A expenses	11,813	20.0
Operating income	1,671	2.8
Non-operating income	1,334	2.3
Non-operating expense	974	1.6
Ordinary income	2,030	3.4
Extraordinary income	7	0.0
Extraordinary loss	3,362	5.7
Income before income tax	△1,324	-
Corporate tax, etc.	879	1.5
Net income	△2,132	-

Sales increased but the cost of sales ratio increased slightly as segment sales composition changed

Up about ¥1,100 million, excluding the increase from foreign exchange, but decreased as a pct. of sales

Equity-accounted investment income :  
¥176 million  
Exchange gain : ¥855 million

Impairment loss in photovoltaic-related business : ¥3,263 million

# Segment Sales and Operating income



<b>Net sales</b> (¥ in millions)	FY3/14		FY3/15		YOY	
	Amount	Pct. Of Sales(%)	Amount	Pct. Of Sales(%)	Amount	Pct. change(%)
Equipment-related	21,628	48.3	26,566	45.0	4,938	22.8
Electronic device	6,609	14.8	9,679	16.4	3,070	46.5
Photovoltaic-related	13,203	29.5	17,948	30.4	4,745	35.9
Others	3,304	7.4	4,884	8.3	1,580	47.8
<b>Total</b>	<b>44,745</b>	<b>100.0</b>	<b>59,078</b>	<b>100.0</b>	<b>14,333</b>	<b>32.0</b>

<b>Operating income</b> (¥ in millions)	FY3/14		FY3/15		YOY	
	Amount	Pct. Of Sales(%)	Amount	Pct. Of Sales(%)	Amount	Pct. change(%)
Equipment-related	504	2.3	1,523	5.7	1,019	202.2
Electronic device	733	11.0	1,459	15.1	726	99.0
Photovoltaic-related	△386	-	△1,272	-	△886	-
Others	8	0.2	10	0.2	2	0.0
Corporate & elimination	△61	-	△50	-	11	-
<b>Total</b>	<b>798</b>	<b>1.8</b>	<b>1,671</b>	<b>2.8</b>	<b>873</b>	<b>109.4</b>

# Consolidated Balance Sheet ~Assets~



(¥ in millions)	FY3/14	FY3/15	Difference
<b>Current assets</b>	<b>39,835</b>	<b>44,418</b>	4,583
Cash & deposits	7,550	10,517	2,967
Note & accounts receivable	16,946	16,971	25
Inventory	12,406	14,135	1,729
<b>Fixed assets</b>	<b>34,887</b>	<b>34,992</b>	105
<b>Tangible fixed assets</b>	<b>29,041</b>	<b>27,739</b>	Δ1,302
Building	6,466	7,287	821
Equipment & machinery	11,809	9,995	Δ1,814
Tools, furniture, and fixture	6,593	6,394	Δ199
Land	708	638	Δ70
<b>Intangible fixed assets</b>	<b>1,613</b>	<b>1,875</b>	262
Goodwill	602	530	Δ72
Investments & other assets	4,232	5,377	1,145
<b>Total assets</b>	<b>74,723</b>	<b>79,410</b>	4,687

## [Major factors for increase in current assets]

Increased about ¥1,500 million YoY, excluding the increase from foreign exchange

### Major factors :

Increase in cash & deposits ¥2,000 million

Increase in inventory ¥600 million

Decrease in note & accounts receivable ¥1,200 million

\* The effect of foreign exchange are excluded from the figure above.

## [Major factors for decrease in tangible fixed assets]

Decreased about ¥4,200 million YoY, excluding the increase from foreign exchange

Main factor is a photovoltaic-related business impairment loss of about ¥3,300 million

## [Intangible fixed assets]

Amortization of goodwill : ¥149 million

# Consolidated Balance Sheet

~Liabilities and  
Net assets~



(¥ in millions)	FY3/14	FY3/15	Difference
Current liabilities	28,522	31,535	3,013
Notes and accounts payable	10,474	13,241	2,767
Shot-term debt	9,386	8,352	△1,034
Current portion of long-term borrowings.	3,037	3,321	284
Fixed liabilities	8,140	8,443	303
CB	-	-	-
Long-term debt	5,673	5,239	△434
Total liabilities	36,662	39,979	3,317
Net Assets	38,060	39,431	1,371
Shareholder's equity	30,604	28,286	△2,318
Total adjustment	6,884	10,559	3,675
Minority interests	571	575	4
Total liabilities & shareholder's equity	74,723	79,410	4,687

**[Major factors for increase in current liabilities]**  
Increased about ¥800 million YoY, excluding the increase from foreign exchange

**Major factors :**

Increase in Notes and accounts payable      ¥2,000 million  
Decrease in Shot-term debt                      ¥1,500 million  
Provision for bonuses                              ¥ 2,000 million

\* The effect of foreign exchange are excluded from the figure above.

**【 Interest-being debt 】**

Short-term debt +Current portion of long-term borrowings      11,673 million      ( 12,423 )

Long-term debt + bond etc.                      5,239 million      ( 5,673 )

**Total**    16,912 million      ( 18,096 )

**【 Net interest-being debt 6,395million ( 10,546 ) 】**

\*Parentheses represent the figures as of end-FY3/14

**[Net assets]**

**Major factors :**

Net income                      : △¥2,132 million

Dividends                      : △¥184 million

Foreign currency translation adjustments : ¥3,720 million

# Consolidated Cash Flow



(¥ in millions)	FY3/14	FY3/15
<b>Cash flow from operating activities</b>	<b>3,927</b>	<b>7,829</b>
Income before income taxes	2,067	Δ1,324
Depreciation	3,941	3,964
Exchange gain & loss (Δ : gain)	Δ1,022	Δ273
Changes in cost of structural reform (Δ : decrease)	Δ1,579	-
Changes in notes & accounts receivable	3,463	1,569
Changes in inventories (Δ : increase)	Δ1,059	Δ469
Changes in accounts payable (Δ : decrease)	Δ962	773
Others	Δ922	3,589
<b>Cash flow from investing activities</b>	<b>Δ2,813</b>	<b>Δ3,552</b>
Payments for purchase of tangible fixed assets	Δ3,825	Δ3,375
Proceeds from sales of tangible fixed assets	108	368
Payments for purchase of marketable securities	Δ101	Δ192
Proceeds from sales of marketable securities	1,507	-
Others	Δ502	Δ353
<b>Cash flow from financing activities</b>	<b>Δ1,861</b>	<b>Δ2,111</b>
Changes in short-term borrowing	Δ1,529	Δ1,658
Proceeds from long-term debt	2,900	2,872
Payments of long-term debt	Δ3,013	Δ3,075
Proceeds from issuance of common stock	-	-
Payments for dividend	Δ155	Δ185
Others	Δ64	Δ65
<b>Changes in cash &amp; cash equivalents</b>	<b>177</b>	<b>2,966</b>
<b>Cash and cash equivalents, beginning of year</b>	<b>7,373</b>	<b>7,550</b>
<b>Cash and cash equivalents, end of year</b>	<b>7,550</b>	<b>10,517</b>

[ Operating cash flow]
Income before income tax + Depreciation ¥ 2,640 million
Non-cash impairment loss ¥ 3,302 million
Increase in operating CF due to decrease in notes & accounts receivable ¥ 1,569 million

[Investing cash flow]
Main contents of payments for tangible fixed assets acquired
• Shanghai subsidiary : ¥1,007 million
• Hangzhou subsidiary : ¥1,239 million
• Yinchuan subsidiary: : ¥969 million



(¥ in millions)	FY3/15	FY3/16(Est.)	YoY(%)
Net sales	59,078	65,000	10.0
Operating income	1,671	3,000	79.5
Ordinary income	2,030	2,500	23.2
Net income	△2,132	1,700	-
Capital investment	3,375	3,300	△2.2
Depreciation	3,964	3,600	△9.2

Note: Exchange rate FY3/15⇒FY3/16(assumed rate) : ¥106.46→¥ 118/ US dollar ¥17.26→19.0/RMB (Avg. during period)

Capital investment is based on cash flow considering unprojected large-scale capital investment and accounts payable facilities at the end of previous fiscal year.

# Business forecast

(¥ in millions)	FY3/16 Est.
Net sales	65,000
Operating income	3,000
Ordinary income	2,500
Net income	1,700

Foresee moderate growth in all segments due to more semiconductor miniaturization investments, growth in solar power systems in use and a continuation of strong automobile sales

Expect an improvement in the photovoltaic-related business and higher earnings in all segments

Expect only interest expenses due to the outlook for small foreign exchange rate movements

Assume an effective tax rate of 32%

# Business forecast (sales by segment)



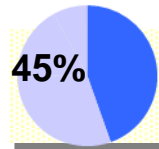
(¥ in millions)	FY3/15	FY3/16(Est.)	YoY(%)
<b>Equipment-related</b>	26,566	28,680	8.0
Vacuum Feedthroughs	7,519	7,600	1.1
Quartz	5,169	5,800	12.2
Ceramics	5,182	6,000	15.8
EB-Gun, LED	3,905	4,180	7.0
Semiconductor Wafer	4,791	5,100	6.4
<b>Electronic device</b>	9,679	11,630	20.2
Thermo-electric module	8,932	10,730	20.1
Ferrofluid, others	748	900	20.3
<b>Photovoltaic-related</b>	17,948	19,800	10.3
Quartz crucibles	3,365	3,900	15.9
Solar silicon	11,458	11,900	3.9
PV manufacturing Equip.	452	300	Δ33.6
Solar cell, Others	2,674	3,700	38.4
<b>Others</b>	4,884	4,884	0.0
<b>Total</b>	<b>59,078</b>	<b>65,000</b>	<b>10.0</b>



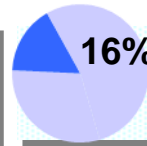
## FY March 2015 Financial Results

### Status by Segment and Outlook

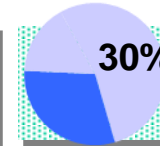
# Segment



**Equipment-related**



**Electronic device**



**Photovoltaic-related**

**Vacuum feedthroughs**



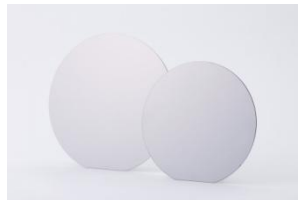
**Quartz**



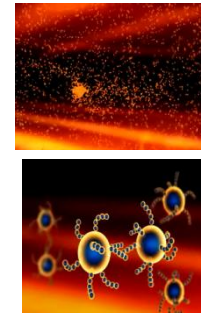
**Ceramics**



**Semiconductor wafer**



**Ferrofluid**



**Thermo-electric module**



**Substrates for power semiconductor**



**PV manufacturing equip. (OEM)**

**Single crystal ingot**



**Multi-crystal ingot**



**PV wafer**



**Consumable**

**Quartz crucible**



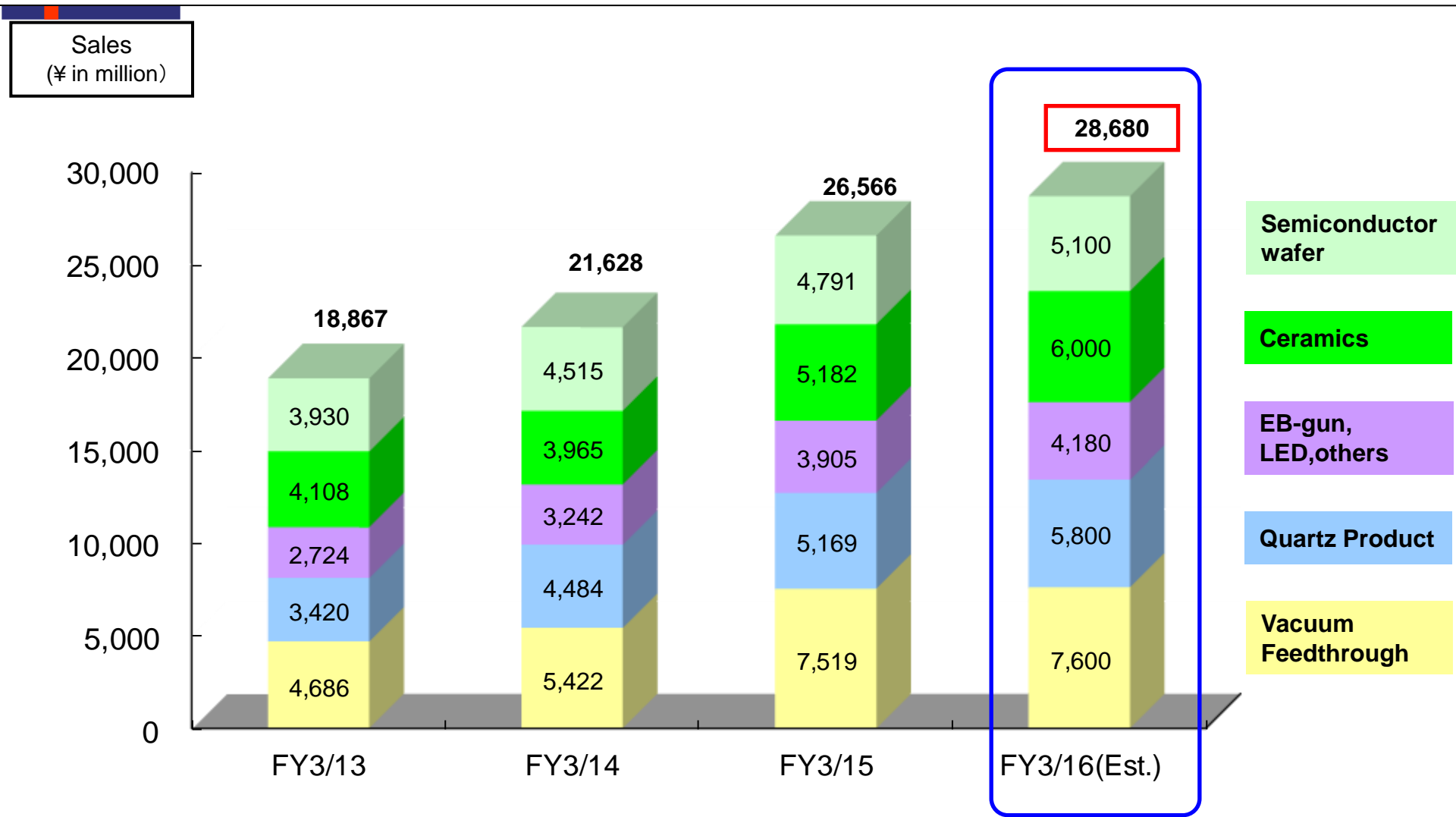
**Hot zone**

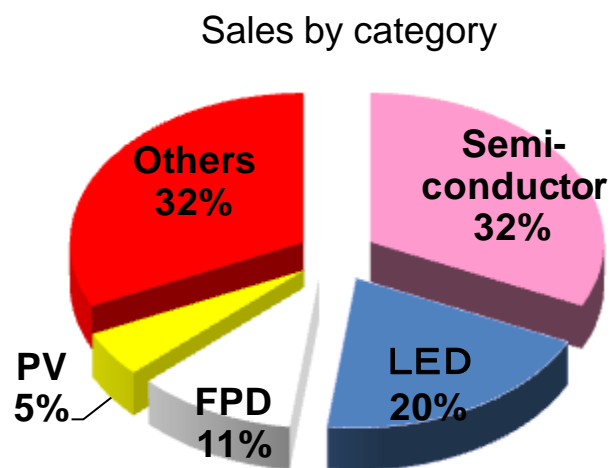
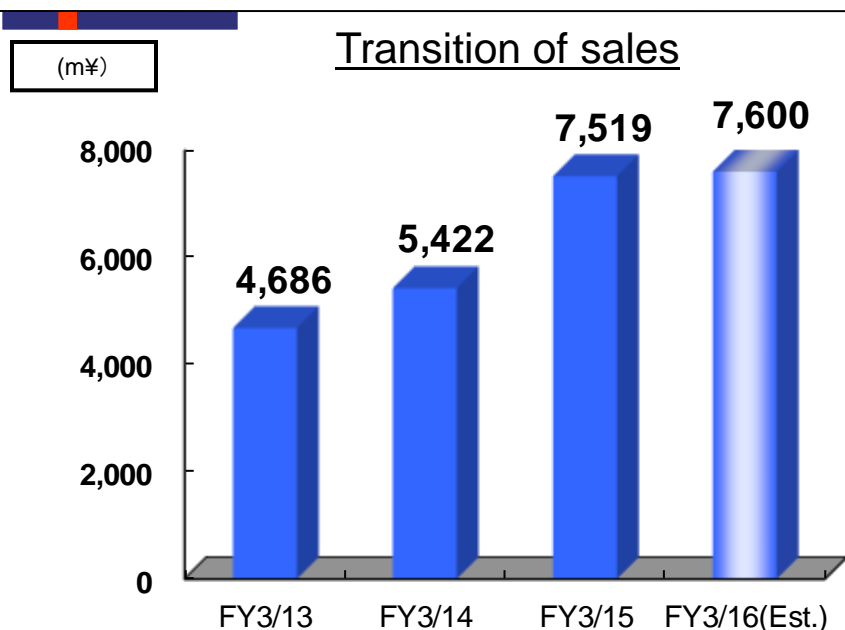


**Vessel crucible**



# Equipment-related segment





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

## 1. Results for FY3/15

- In the FPD market, sales were below the initial plan despite greater clarity for smartphones and tablets and demand for small to midsize LCD production equipment.
- Demand for semiconductors rose on sustained investment in 3D and miniaturisation
- Steady expansion of contract manufacturing for semiconductors equipment
- The LED market recovered for automotive devices and LCD backlighting.

## 2. Outlook for FY3/16

- Expect semiconductor applications to continue to achieve gentle growth due to continuous investment
- Anticipate demand for small and midsize LCD production equipment due to the investment plans of manufacturers in Japan, China and Korea.
- Expect that LED-use for automobile applications will start to steadily rise
- Expect to receive contracted manufacturing orders from Japanese companies operating in China.

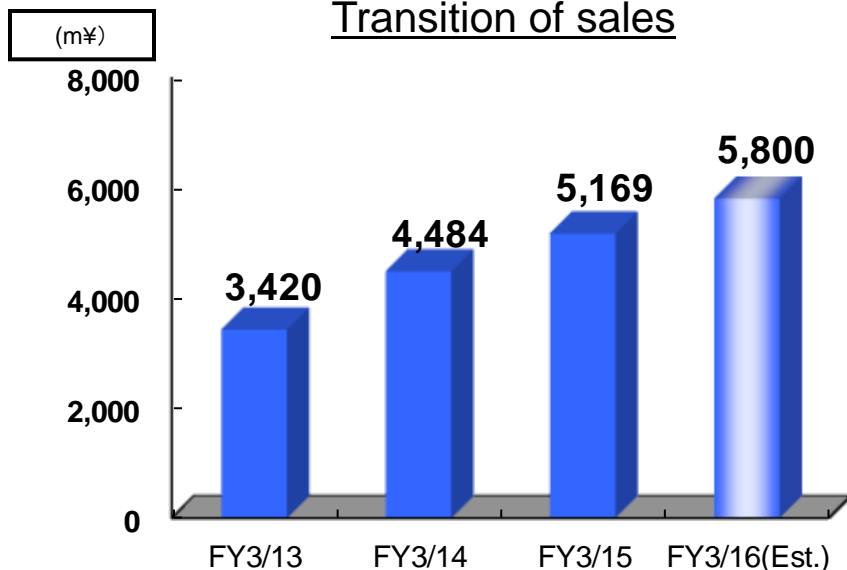
## <Measures>

- Strengthen relationships with manufacturers of semiconductor production equipment
- Continue to perform subassembly processes for general industrial companies
- Bolstering of operations and O/H business in Taiwan market

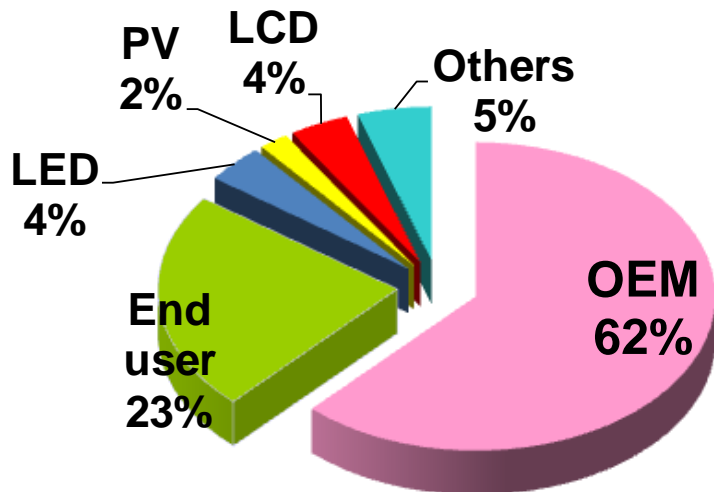
# Status and Outlook for Quartz Products



Transition of sales



Sales by category



## 1. Results for FY3/15

- Orders from US major OEM(SWP)continued
- Major OEM in Japan has moved from peaking out to growth
- Capacity utilization rates remained high at Japanese and Asian companies
- Higher sales of products for LEDs due to rising demand for LEDs used in smartphones
- Customers continued to ask for quick deliveries

## 2. Outlook for FY3/16

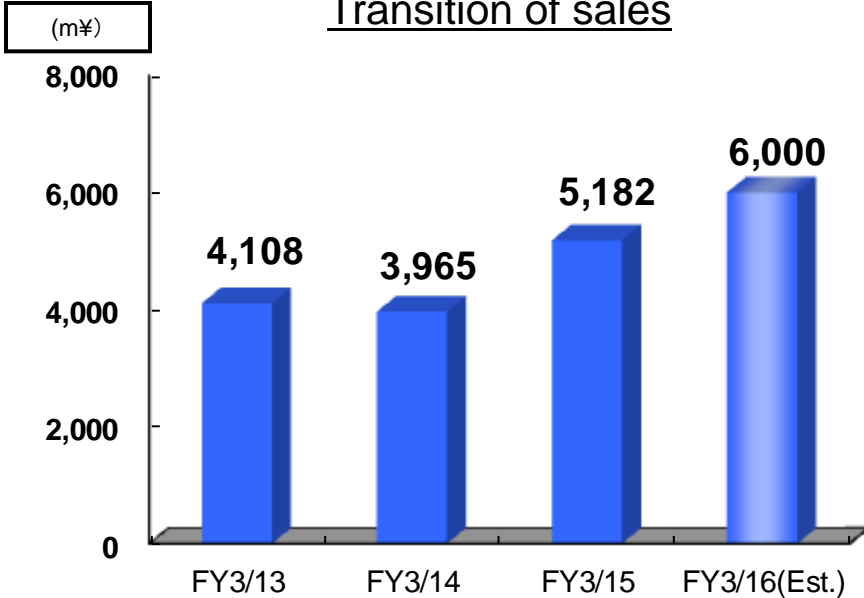
- Expect that US majors' OEM (SWP) will remain strong
- Expect that Japanese majors' OEM will rise
- Expect that capacity utilisation rates at domestic and Asian companies will remain at high levels
- Plan to increase output capacity to meet demands for faster deliveries

### <Measures>

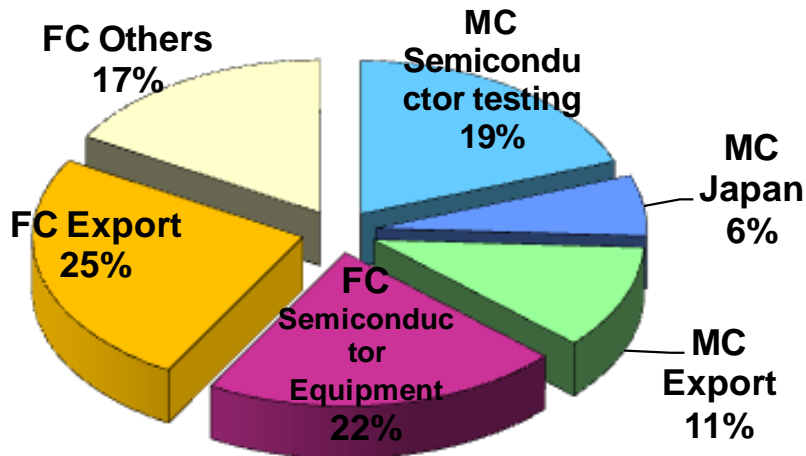
- Plan to consolidate manufacturing bases and invest in more production equipment
- Start volume production of next-generation silicon wafers
- Continue to strengthen operations in Taiwan and meet demands for customization



Transition of sales



Sales by category



FC(Fine Ceramics) , MC(Machinable Ceramics)

## 1. Results for FY3/15 (Jan. – Dec.)

### Machinable ceramics “Photoveel”

- Rapid growth starting in the middle of the year for non-volatile memories for new smartphone models from companies in Taiwan and Korea; NAND Flash demand was strong during the entire fiscal year.

### Fine ceramics

- Strong orders for components for new equipment due to semiconductor industry progress with miniaturisation and growth in production. There was an especially big contribution from sales activities targeting US companies.

## 2. Outlook for FY3/16 (Jan. – Dec.)

### Machinable ceramics “Photoveel”

- Orders were strong from the beginning of 2015 as companies increased output of new smartphone models in the fall of 2014. Also capturing orders associated with demand related to new models launched in the spring of 2015. Some signs of weakness this summer but foresee no significant change in market conditions.

### Fine ceramics

- As miniaturisation and production capacity growth continues in the semiconductor industry, expect very strong demand in Japan and overseas through the first half for components used in new equipment.
- The outlook for 2016 investments is unclear at some semiconductor manufacturers, so demand may peak at some companies in the first half of this fiscal year.

## 3. Continued sales policy

### <Machinable>

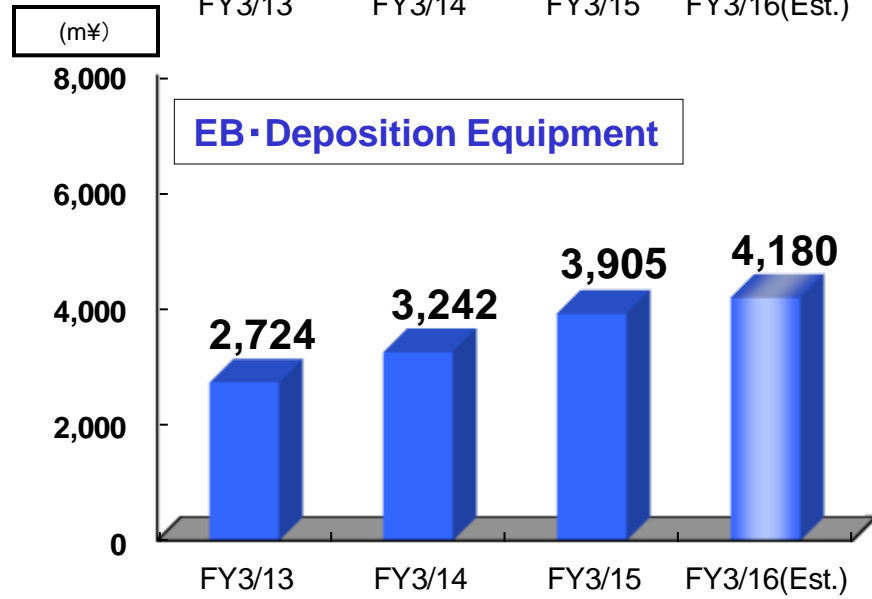
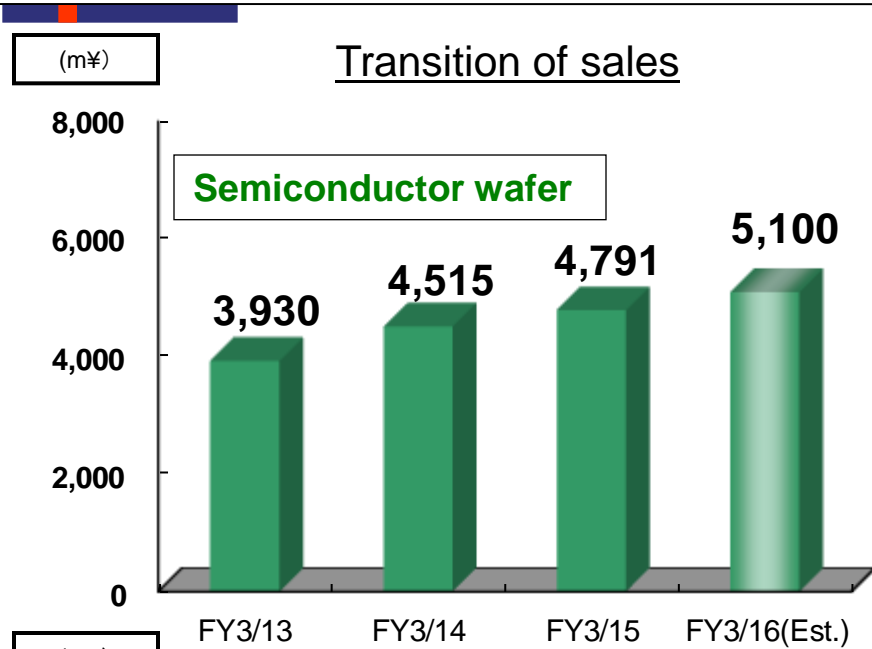
- Plan to introduce a next-generation model to respond swiftly to changing needs for wafer circuit inspection equipment.

### <Fine ceramics>

- Anticipate growth in demand for new equipment applications to meet needs associated with miniaturisation. Will reexamine some manufacturing operations and concentrate on targeting demand for products.

### <Common>

- Working on establishing relationships with new customers in the semiconductor sector and creating new non-semiconductor applications



**Semiconductor wafer:**

**1. Results for FY3/15**

- The market environment is firm, and so making solid progress with the company's own brand products.
- Demand in Chinese and Taiwanese markets was strong

**2. Outlook for FY3/16**

- Maintaining a strong performance for the company's own brand products.
- Started production for OEM customers in Europe

**<Measures>**

- Establishment of technology, product quality and other service structures

**EB gun and deposition equipment:**

**1. Results for FY3/15**

- Applications for smartphone communications chips started to expand in the second half

**2. Outlook for FY3/16**

- Anticipate steady growth in the markets for communications chips and LED

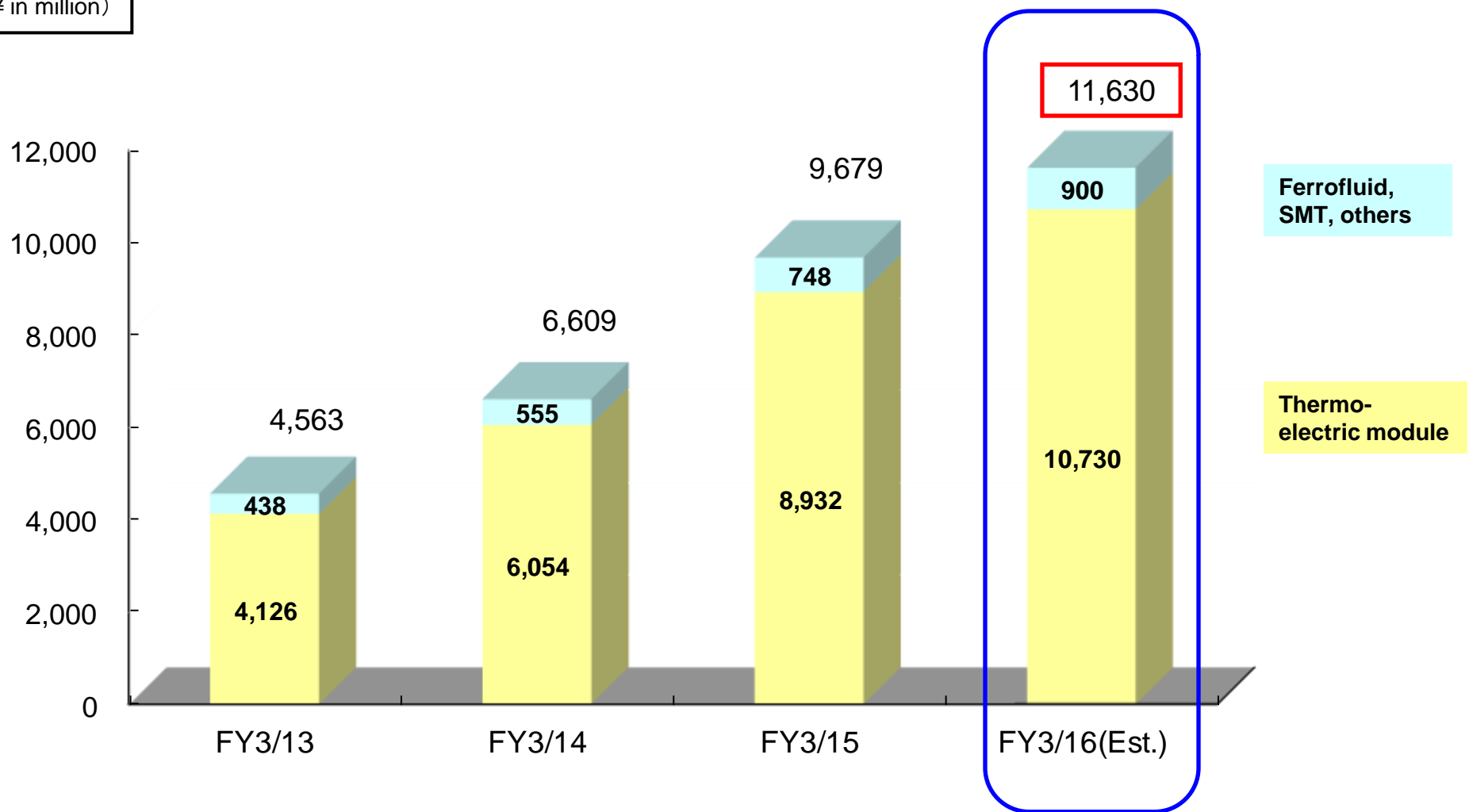
**<Measures>**

- Focusing on optical market and start taking orders
- EB gun: There are feelings of uncertainty

# Electronic Device Segment

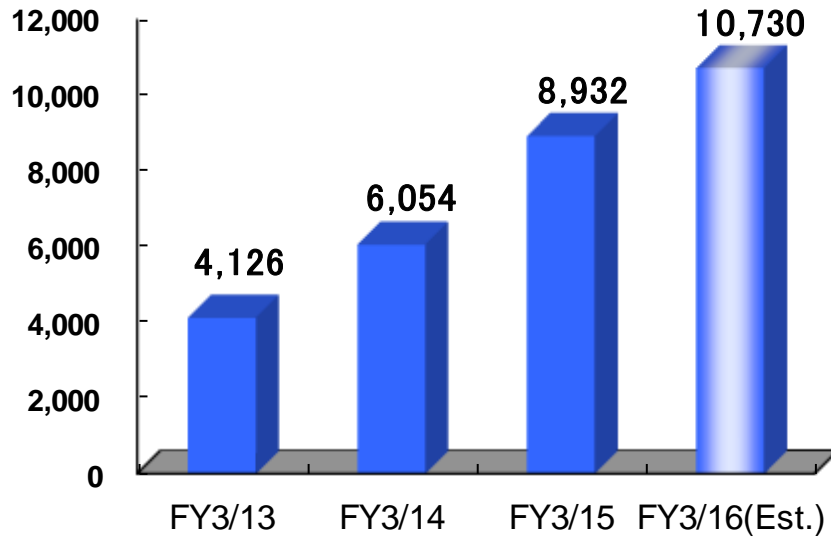


Sales  
(¥ in million)

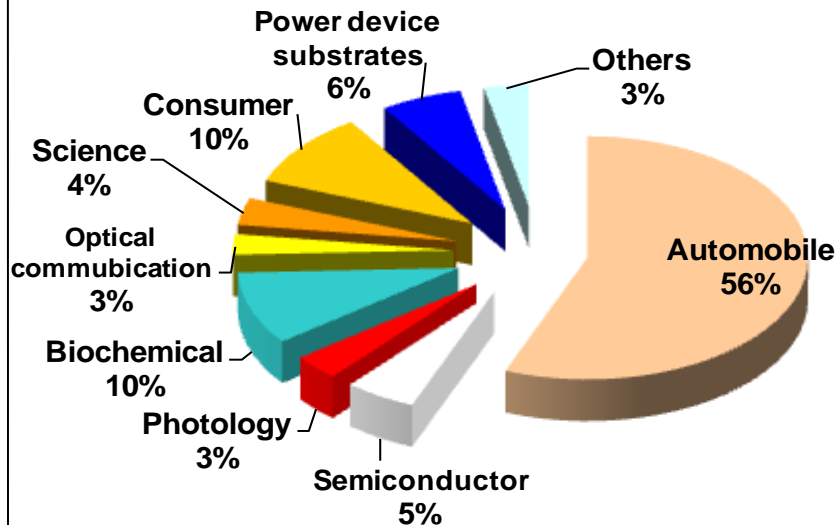


(m¥)

## Transition of sales



## Sales by category



## 1. Results for FY3/15

### Automobile seat

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

### Other industries

- New consumer product applications and the semiconductor sector also recorded strong performances.
- Sales remained strong for bio/medical and general industrial applications.
- Power device substrates moved into growth as number of models using them increases

## 2. Outlook for FY3/16 1<sup>st</sup> half

### Automobile seat

- Expect no change in sales due to steady demand in North America.

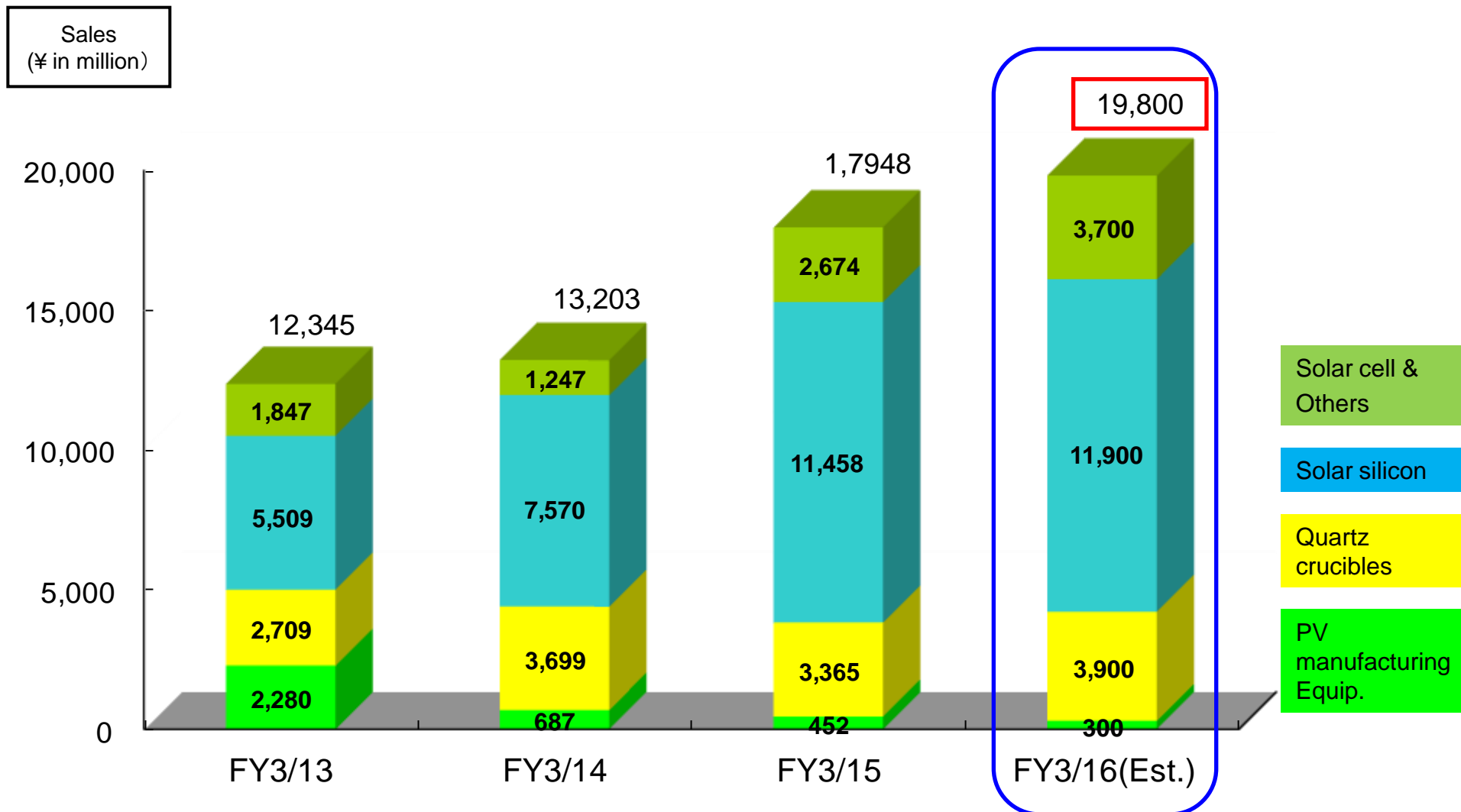
### Other industries

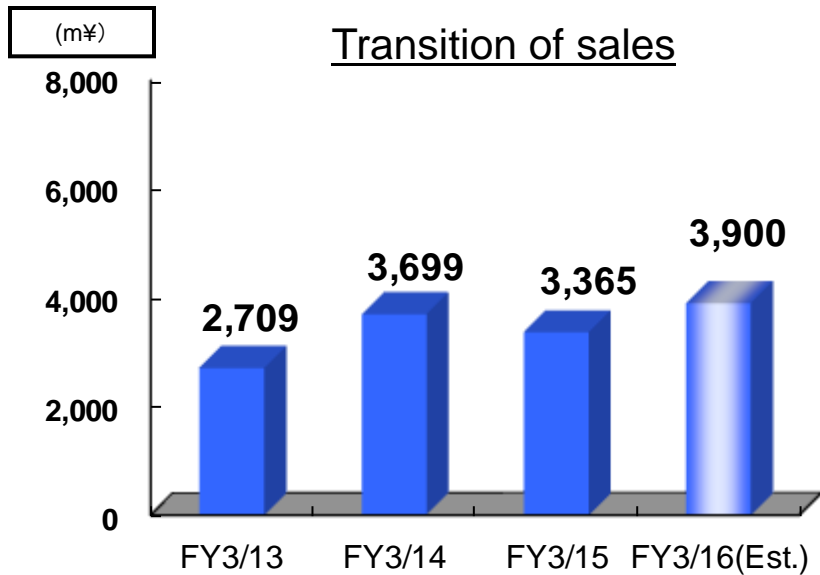
- Expect that demand for consumer product applications will increase
- Demand in China will remain firm for optical telecommunications equipment applications
- Expect that bio, medical, and general industrial applications will all remain firm
- Plan to start new mass production of power device substrates

### <Measures>

- Upgrade support for customers for the launch of new products that use TE
- Enlarge the lineup of new TE products and products incorporating TE
- Planning on capital expenditures to increase output and automate production
- Plan to make investments to start mass production of power device substrates

# Photovoltaic-related Segment



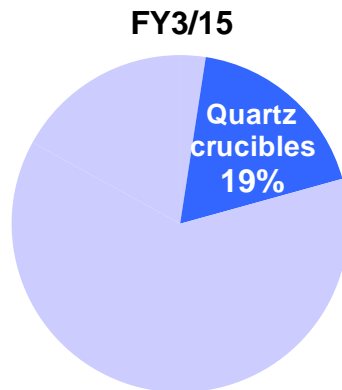


Single-crystal quartz crucible



Multi-crystal vessel

**Pct. Of sales  
In the PV segment**



## 1. Results for FY3/15

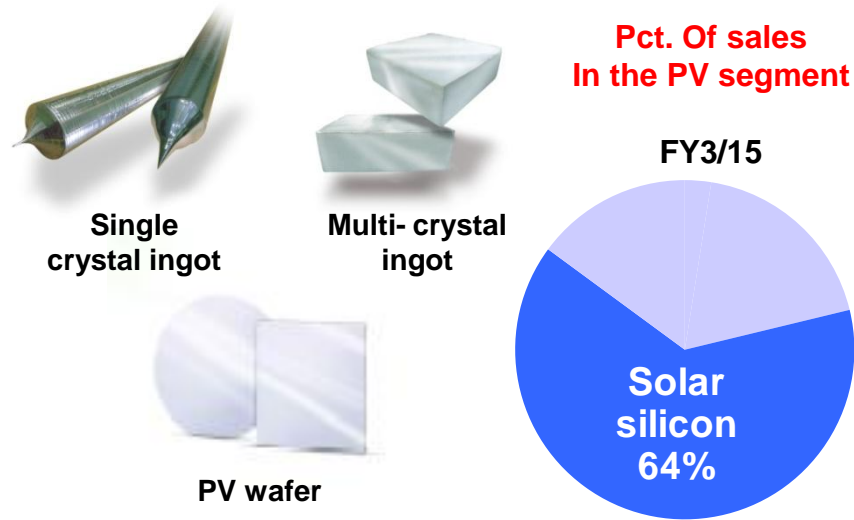
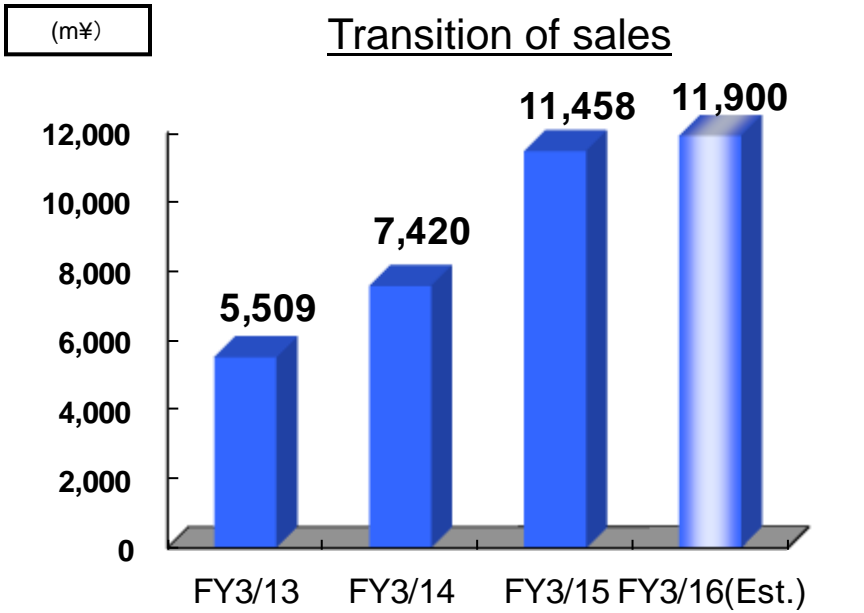
- Demand continued to recover but crucible prices for solar cell customers decreased
- Second half demand declined due to the effects of US anti-dumping measures
- These measures also brought down sales of vessels for multi-crystal in Taiwan
- A small decrease in sales from the previous fiscal year

## 2. Outlook for FY3/16

- US anti-dumping measures will still affect performance in the first half
- For semiconductors, will continue sales of crucibles for small-diameter wafers; plan to use the transfer of production to the Yinchuan plant to recapture market share and quickly enter the market for semi crucibles (goal is small-diameter market share of 50%, deliver medium-diameter/24 evaluation products)
- Expect a slow recovery in sales of vessels for multi-crystal in Taiwan
- The multi-crystal market in China is shifting to the large G6 size
- Foresee growth in demand due to plans of manufacturers to raise output

### <Measures>

- Plan to raise prices of single-crystal quartz crucibles with a longer life to reflect the higher cost
- Completed the transfer to the Yinchuan plant and started production in April 2015
- Continuing to supply authorized products to semiconductor manufacturers in Japan



## 1. Results for FY3/15

- Demand from OEM was firm but demands for cost reductions were intensifying even further
- The market was weak due to the effects of US anti-dumping measures
- Intense competition brought down prices of multi-crystal products
- Global solar installations are growing (43GW in 2014) but the market was affected by the decline in China
- Solar panel demand was impacted by problems in Japan involving connection to the power grid

## 2. Outlook for FY3/16

- Demand from OEM is firm but demands for cost reductions and higher conversion efficiency are intensifying even further
- Trade friction between US and China will remain slightly
- To achieve yet further technological advances in thinning technologies for single-crystal quartz
- Pricing reviews for multi-crystal products, uncertainty sets to continue
- Forecast is for a big increase in global solar installations from 43GW in 2014 to 53GW in 2015
- Work is starting on national solar projects in emerging countries
- All solar panel manufacturers in China have announced plans to increase output

### <Measures>







- Complete the transfer of crystal production to the Yinchuan plant
- Use fixed abrasives to meet requirements associated with wafer miniaturisation
- Aiming to expand the number of customers for N-type single crystal by enhancing functionality
- Stop production of Multi-crystal wafers



## Reference Materials



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"><li>• <b>Equipment-related business</b> : Vacuum Feedthrough, Quartz, Ceramics, silicon, wafer processing</li><li>• <b>PV-related business</b> : PV manufacturing equip, Quartz crucibles, solar silicon</li><li>• <b>Electronic device business</b> : thermo-electric module, Ferrofluid</li></ul>
Capital	13,201,346thousand JPY
Issued Stock	30,903,702
Related Company	[24 Consolidated Subsidiary] [5 Companies Accounted for by the Equity Method]
Employees	[Consolidated]5,468 [Non-consolidated]126

1980~	1990~	2000~
<p>Started manufacturing and selling products using ferrofluids (computer seals, vacuum feedthroughs)</p> <p><b>Vacuum Feedthroughs</b></p> 	<p>92 – Started manufacturing and selling thermo-modules and modules in China 98 – Started manufacturing and selling quartz products for the semiconductor industry</p> <p><b>Thermo-electric module</b></p>  <p><b>Quartz</b></p> 	<p>02 – Started contract manufacturing service business for silicon wafer processing, machine tool production and other activities (Shanghai factory) 05 – Started photovoltaic products business; started manufacturing and selling machinery and crucibles for manufacturing silicon ingots and crystals 08 – Started manufacturing and selling ceramic products</p> <p><b>Ingot</b></p>  <p><b>Single crystal silicon growing furnaces</b></p>  <p><b>Machinable Ceramics</b></p> 

With a core of ferrofluid expertise	Establishing operations in other countries	Building a new profit structure
<p>~ <b>Ferrotec's core Technology</b> ~</p>	<p>91: Established subsidiary in Massachusetts, <b>USA</b> 92: Established subsidiary in Hangzhou, <b>China</b> 95: Established subsidiary in Shanghai, <b>China</b> 97: Established subsidiary in <b>Singapore</b> 99: Started operations in <b>North America</b> and <b>Europe</b> by acquiring Ferrofluidics</p>	<p><b>02: Started contract manufacturing service (CMS) business at the Shanghai factory, including silicon wafer processing, machine tool production and other activities</b> Expertise in production technologies extending from component processing to final assembly allowed Ferrotec to start the CMS business</p> <p><b>05 : Increased manufacturing and sales activities for photovoltaic products in Hangzhou, China</b></p>

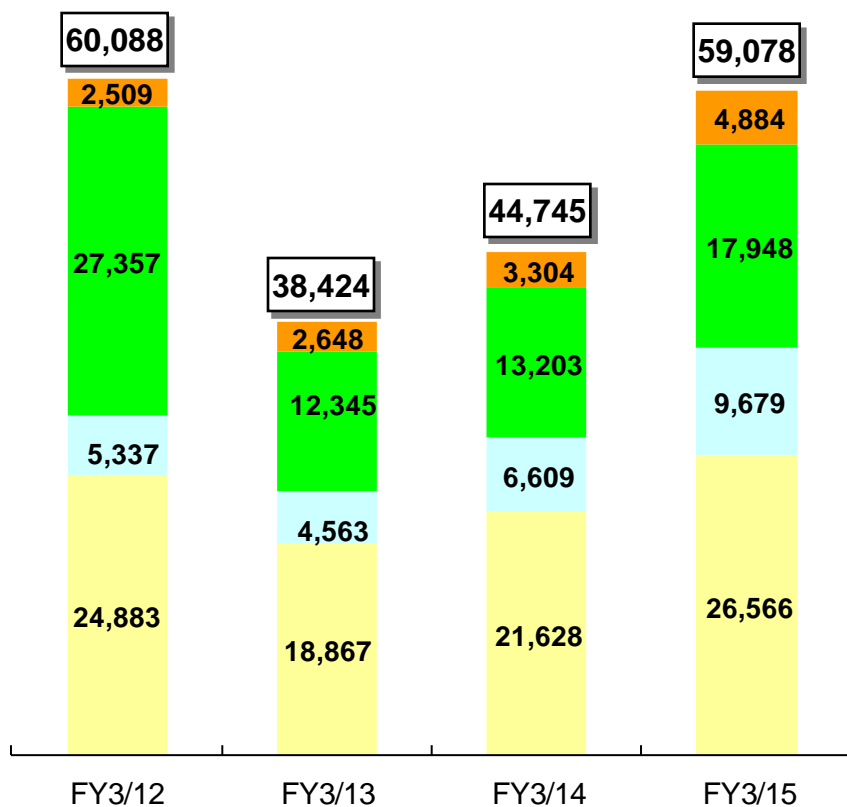
# Sales and Operating income Trend



## Sales Trend

(¥ in millions)

Equipment related   Electronic device   PV   Others



## Operating income Trend

(¥ in millions)

Equipment related   Electronic device   PV   Others

