Results for the Six Months Ended September 30, 2016
(April 1, 2016 to September 30, 2016)

The leader of thermistor temperature sensors

SHIBAURA ELECTRONICS CO., LTD.

Financial Results
for the First Half of FY2016
(April 1, 2016 - September 30, 2016)

SHIBAURA ELECTRONICS CO., LTD.

1. Business environment

Japanese economy

continued to face adversity due to stagnant consumer spending in spite of the steady employment and income environment, yen appreciation and economic slowdown in developing countries.

Global economy

US	remained on a recovery trend with consumer spending.
EU	increased uncertainty due to Brexit.
China	clearly slowed down with further downside risks.

Factors around Shibaura

1. Yen appreciation
2. Lack of manpower
3. Low price of crude oil
4. Environmental issues (COP22)
5. Climate change (large typhoons, earthquakes…)
6. Advancement of IT (AI, IoT, automonous driving…)
7. M&A (capital and business alliance)

2. Sales and profit factors

Net sales	**11,050 mil. yen**	**+4.6% (year-to-year)**
Operating income	**1,076 mil. yen**	**+31.7% (year-to-year)**
Operating income margin	**9.7 %**	**7.7%**

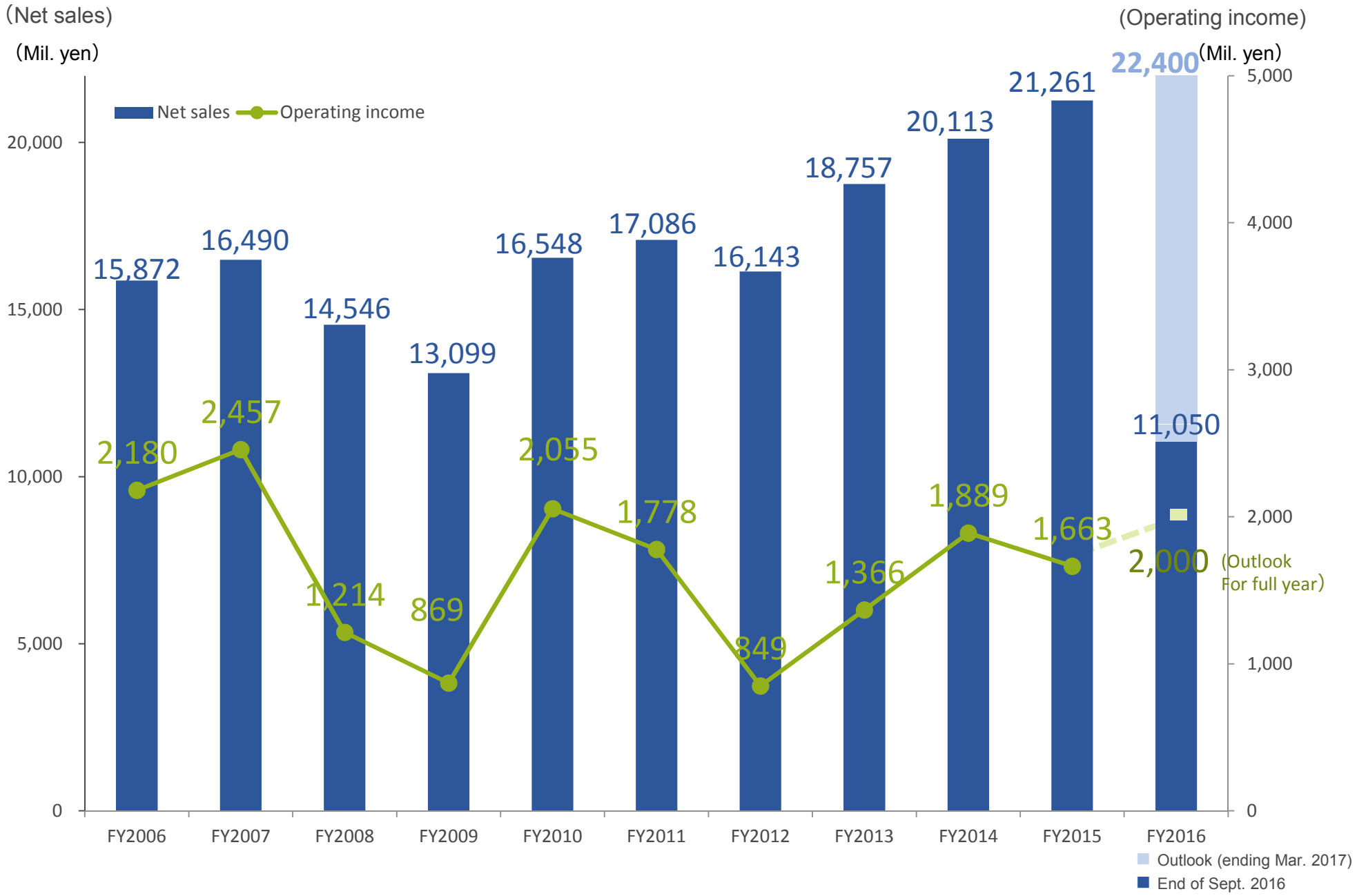
- Thermistor elements for automobiles and thermistor sensors for air conditioners continued strong.
- Thermistor sensors for small home appliances recovered.
- Overseas sales decreased due to unfavorable foreign exchange rates.
- Decrease in manufacturing costs.
- Product mix – increased sales of high margin products.

3. Statement of income (Summary)

(Amount: million yen, comparison: %)

	1H FY2015 ended Sept. 30, 2015		1H FY2016 ended Sept. 30, 2016		
	Amount	Composition ratio	Amount	Composition ratio	Comparison with last year
Net sales	10,565	100.0	11,050	100.0	4.6
Cost of sales	8,333	78.9	8,486	76.8	1.8
Gross profit	2,231	21.1	2,564	23.2	14.9
Selling, general and administrative expenses	1,413	13.4	1,487	13.5	5.2
Operating income	817	7.7	1076	9.7	31.7
Non-operating income	40	0.4	50	0.5	22.5
Non-operating expenses	9	0.1	118	1.1	1,150.0
Ordinary income	849	8.0	1,008	9.1	18.8
Extraordinary income	112	1.1	0	0.0	–
Extraordinary losses	114	1.1	10	0.1	△90.4
Income taxes	253	2.4	309	2.8	22.1
Net income	594	5.6	688	6.2	15.9

4. Net sales and operating income



5. Balance sheet (Summary)

Assets

	Mar. 31, 2016	Sept. 30, 2016	Change
Current assets	17,930	17,243	△687
Cash and deposits	6,381	5,707	△674
Account receivable	5,860	6,211	351
Inventory assets	4,799	4,657	△141
Others	889	666	△222
Noncurrent assets	8,057	7,639	△417
Property, plant and equipment	7,217	6,829	△387
Intangible assets	143	143	0
Other assets	695	666	△29
Total assets	25,987	24,882	△1,105

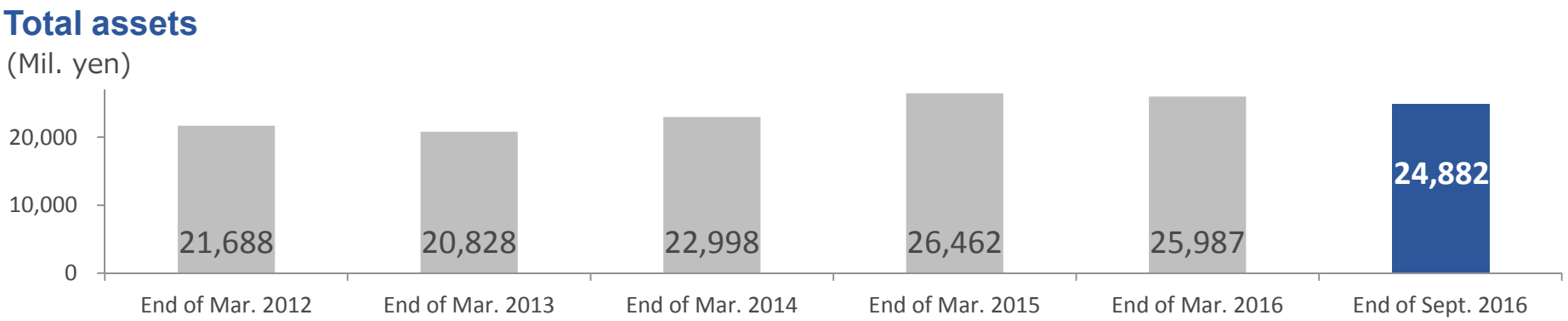
Liabilities and shareholders' equity

(Mil. yen)

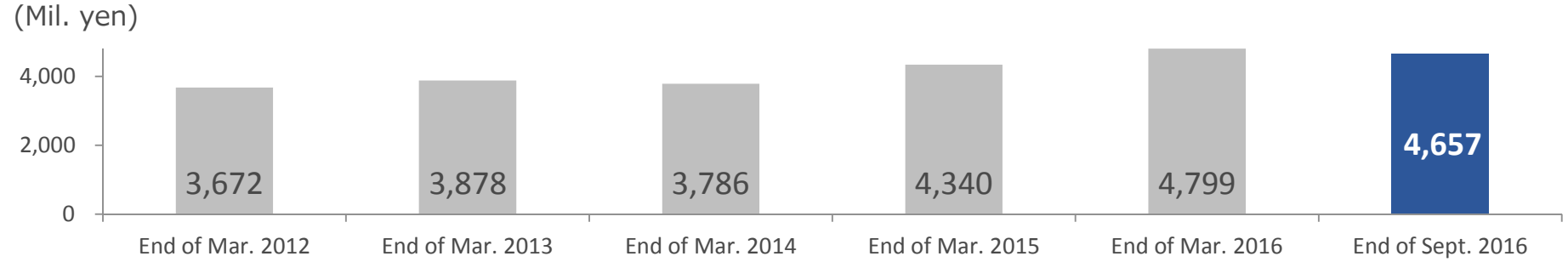
	Mar. 31, 2016	Sept. 30, 2016	Change
Current liabilities	5,897	5,842	△55
Account payable	3,134	2,959	△174
Short-term loan payable	923	792	△130
Others	1,839	2,089	250
Noncurrent assets	1,649	1,399	△250
Long-term loan payable	1,241	997	△243
Others	408	401	△6
Total liabilities	7,546	7,241	△305
Net assets	18,441	17,641	△799
Total liabilities and net assets	25,987	24,882	△1,105

6. Balance sheet items

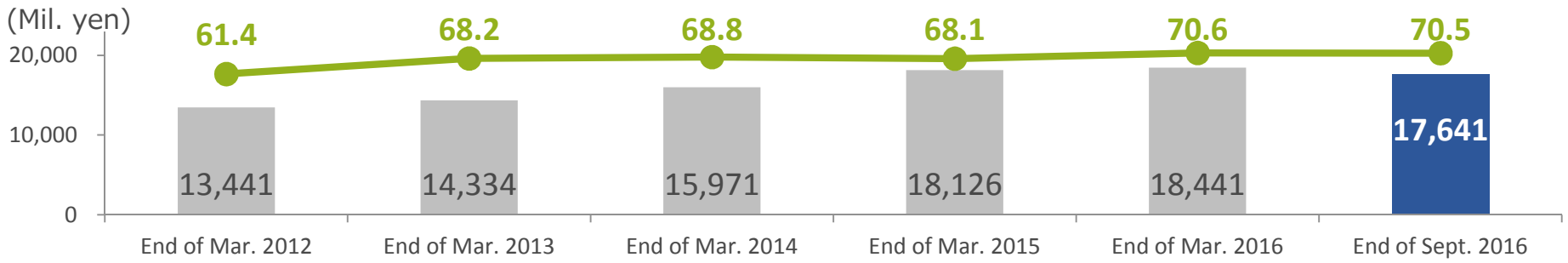
Total assets



Inventory assets

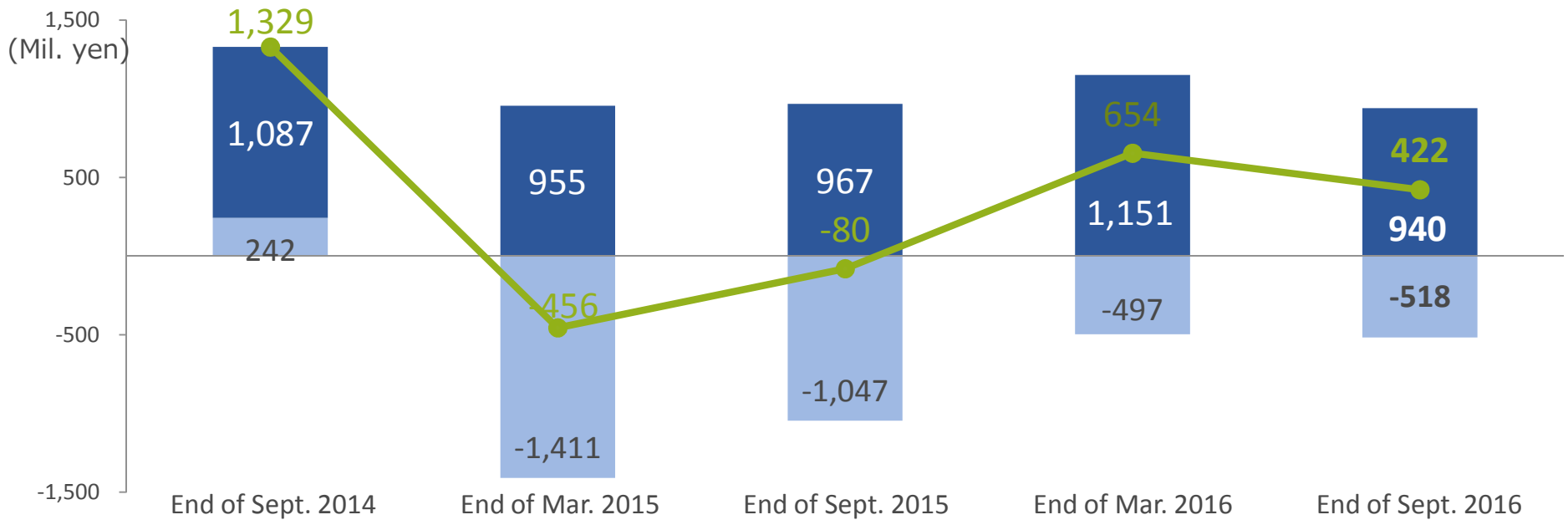


Shareholders' equity and equity ratio

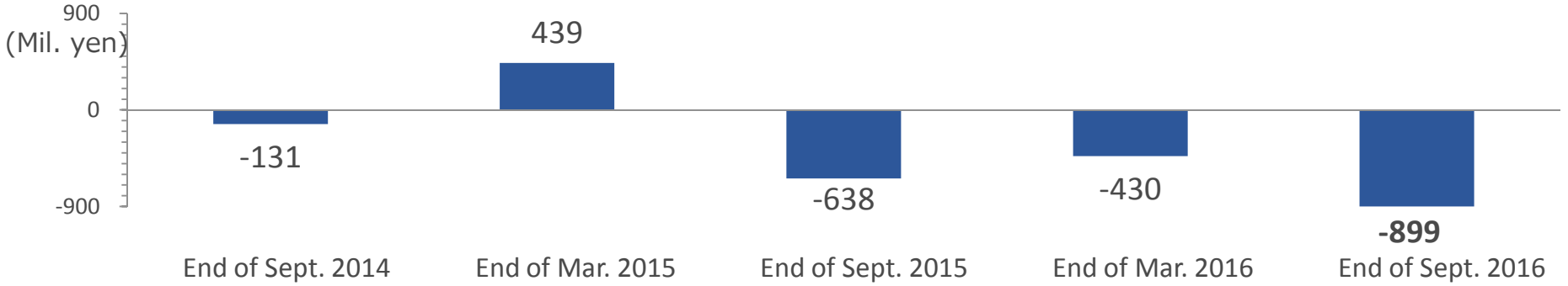


7. Cash flows

Free cash flow



Cash flow used in financing activities

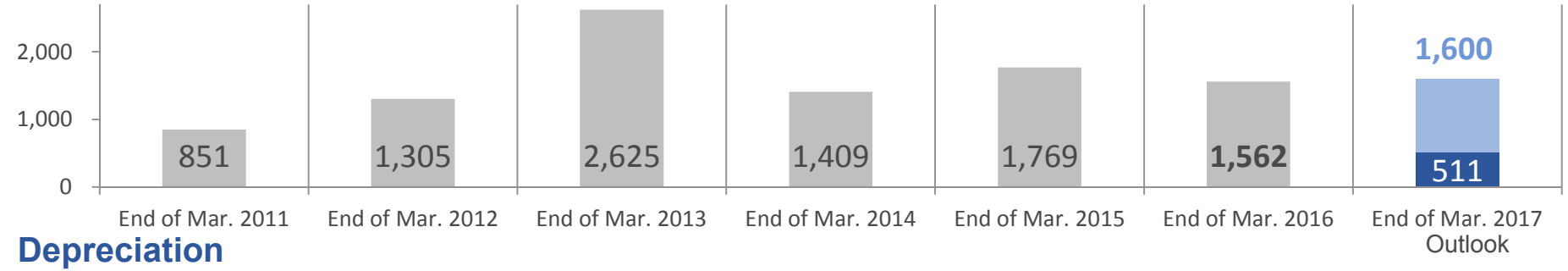


8. Capital expenditure, depreciation, R&D expenditure

Capital expenditure

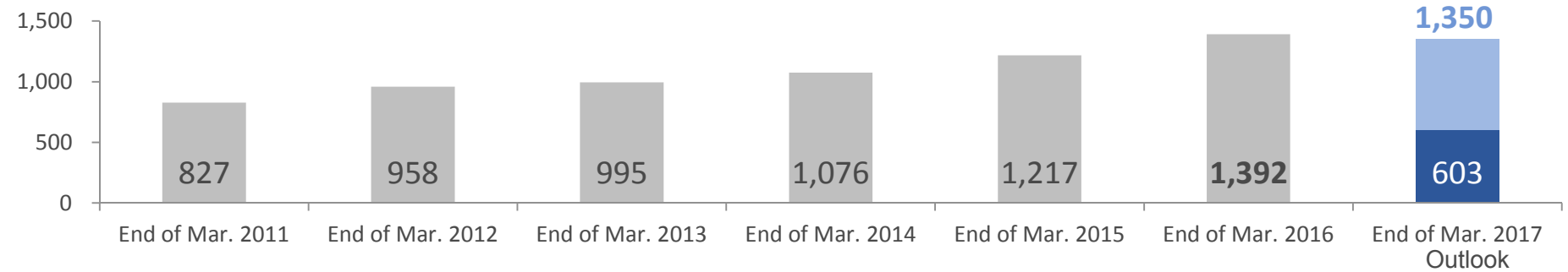
(Cash-flow based)

(Mil. yen)



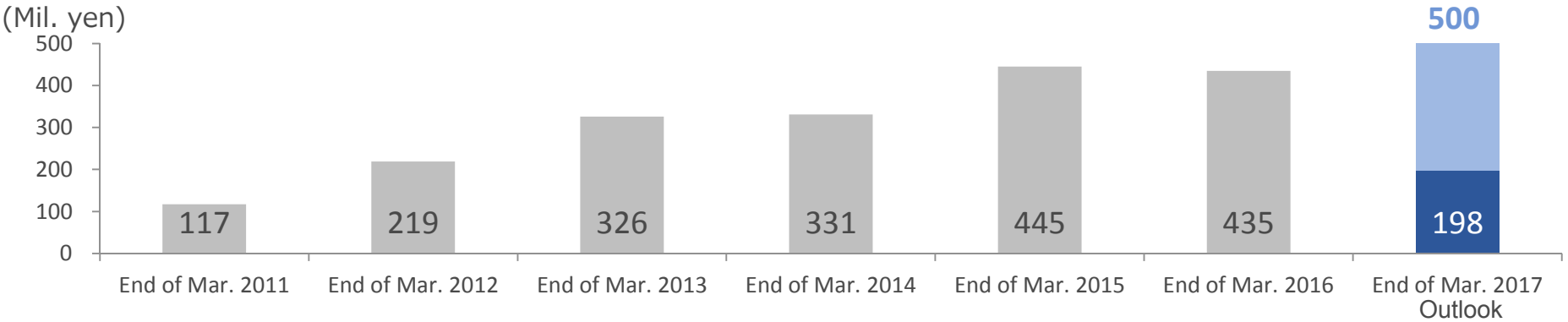
Depreciation

(Mil. yen)

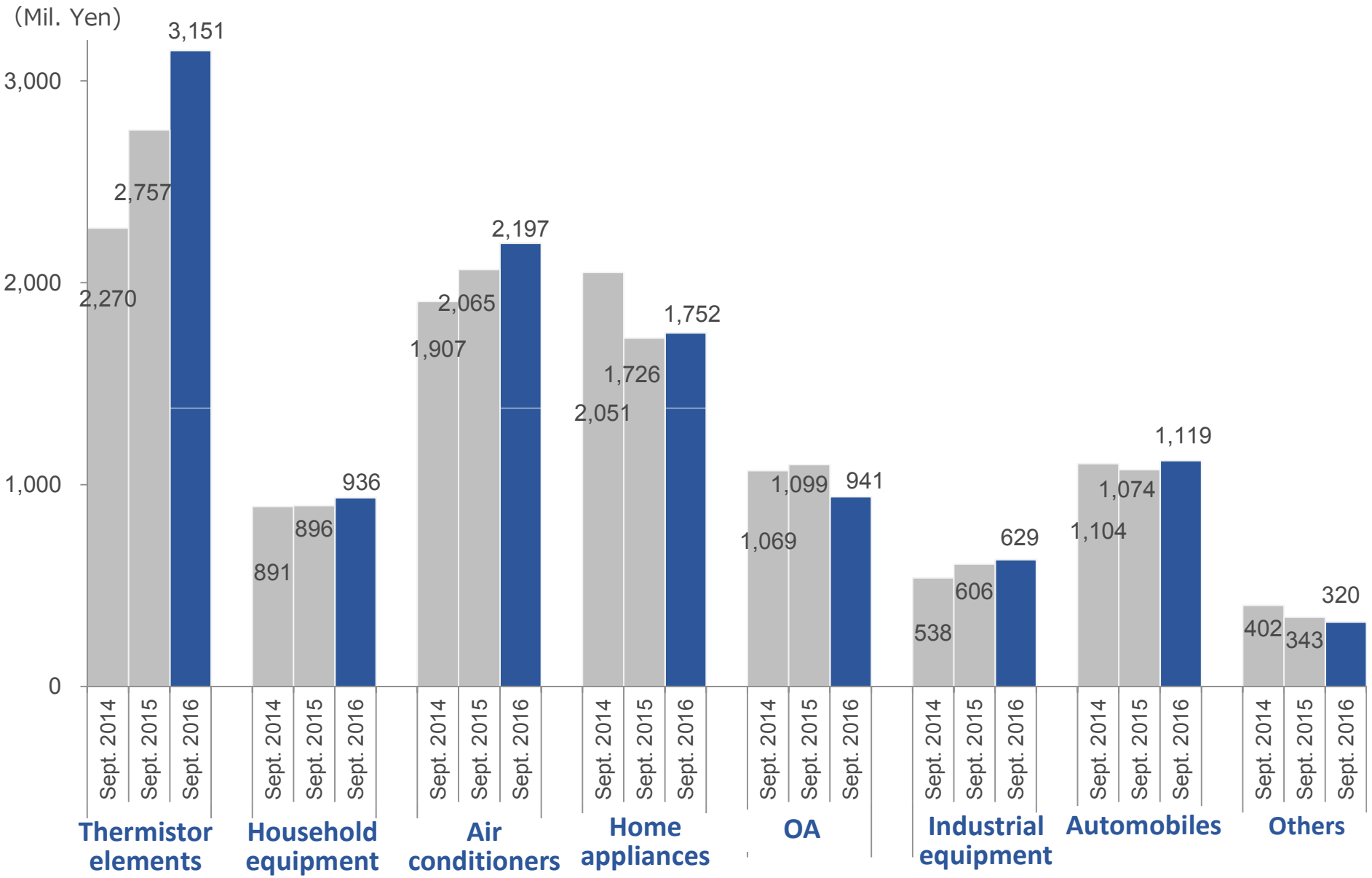


Research and development expenditure

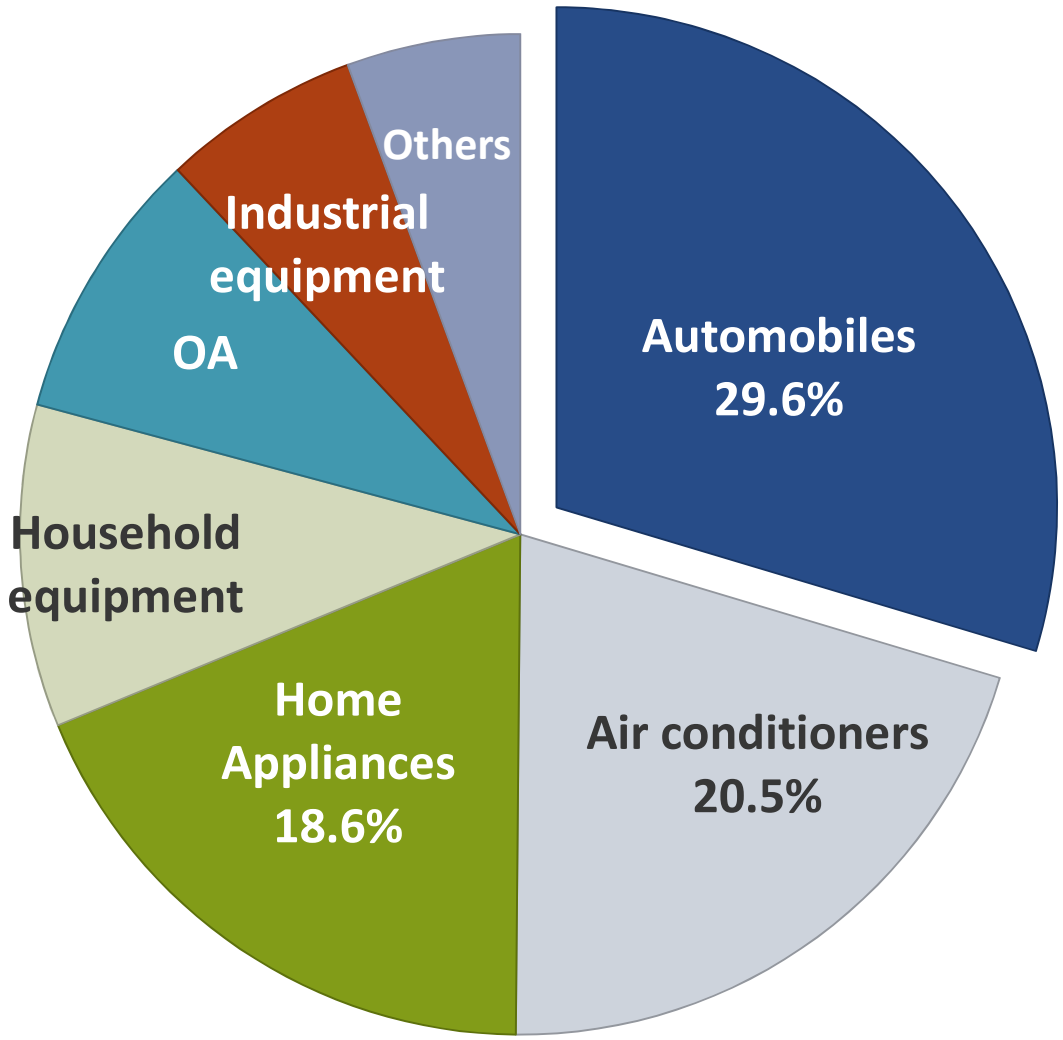
(Mil. yen)



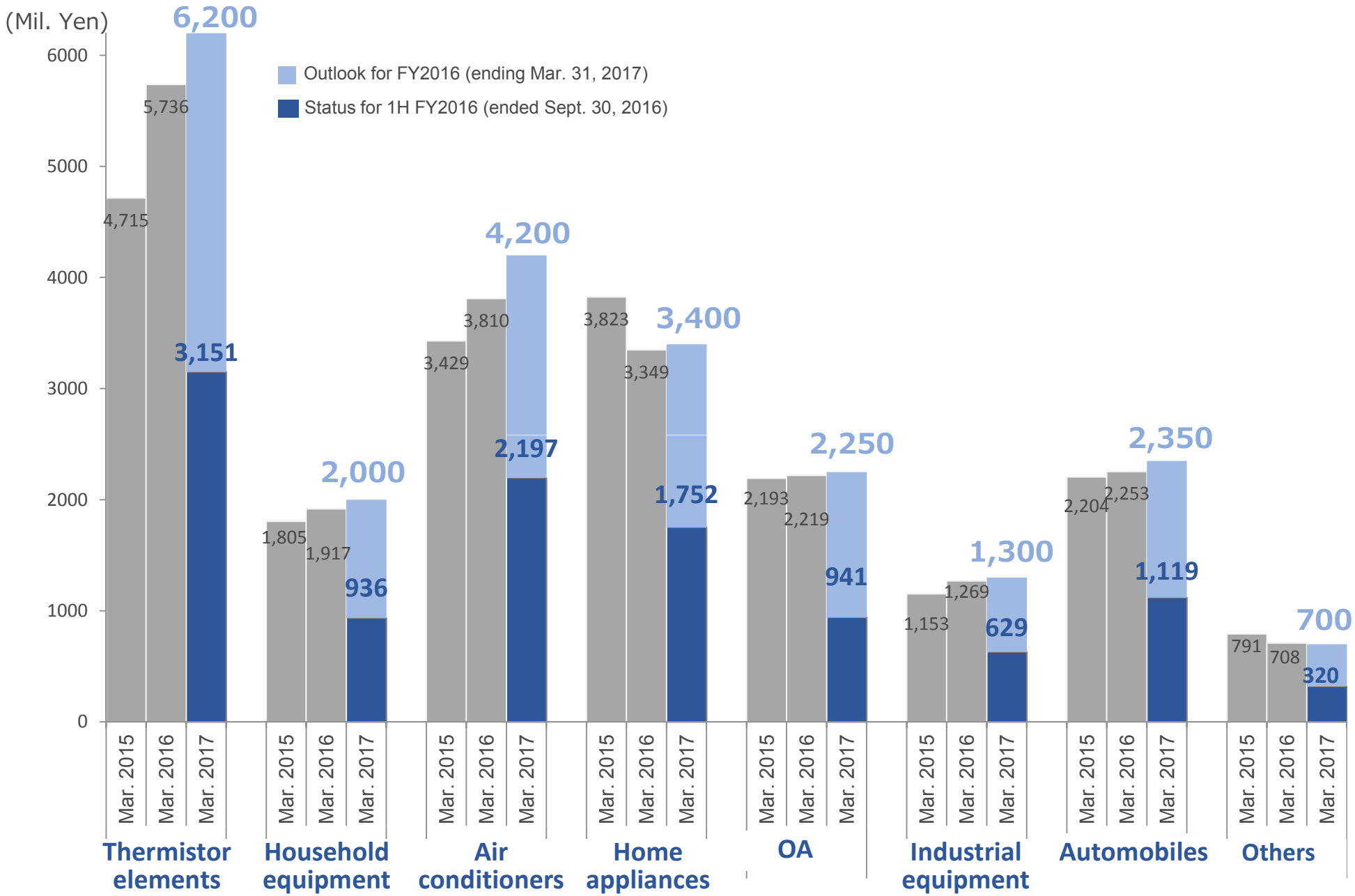
9. Sales by application (based on 1H, ended September 30)



10. Sales by application (including thermistor element sales)



11. Sales by application: full year (outlook & 1H status for FY2016)



12. FY2016 (ending March, 2017) business outlook

(Amount: mil. yen, comparison: %)

	H1 FY2016 results	H2 FY2016 outlook	FY2016 full year outlook
Net sales	11,050 (4.6)	11,350 (6.1)	22,400 (5.4)
Operating income	1,076 (31.7)	924 (9.2)	2,000 (20.2)
Ordinary income	1,008 (18.8)	992 (15.2)	2,000 (17.0)
Net income attributable to owners of the parent	688 (15.9)	812 (31.1)	1,500 (23.6)

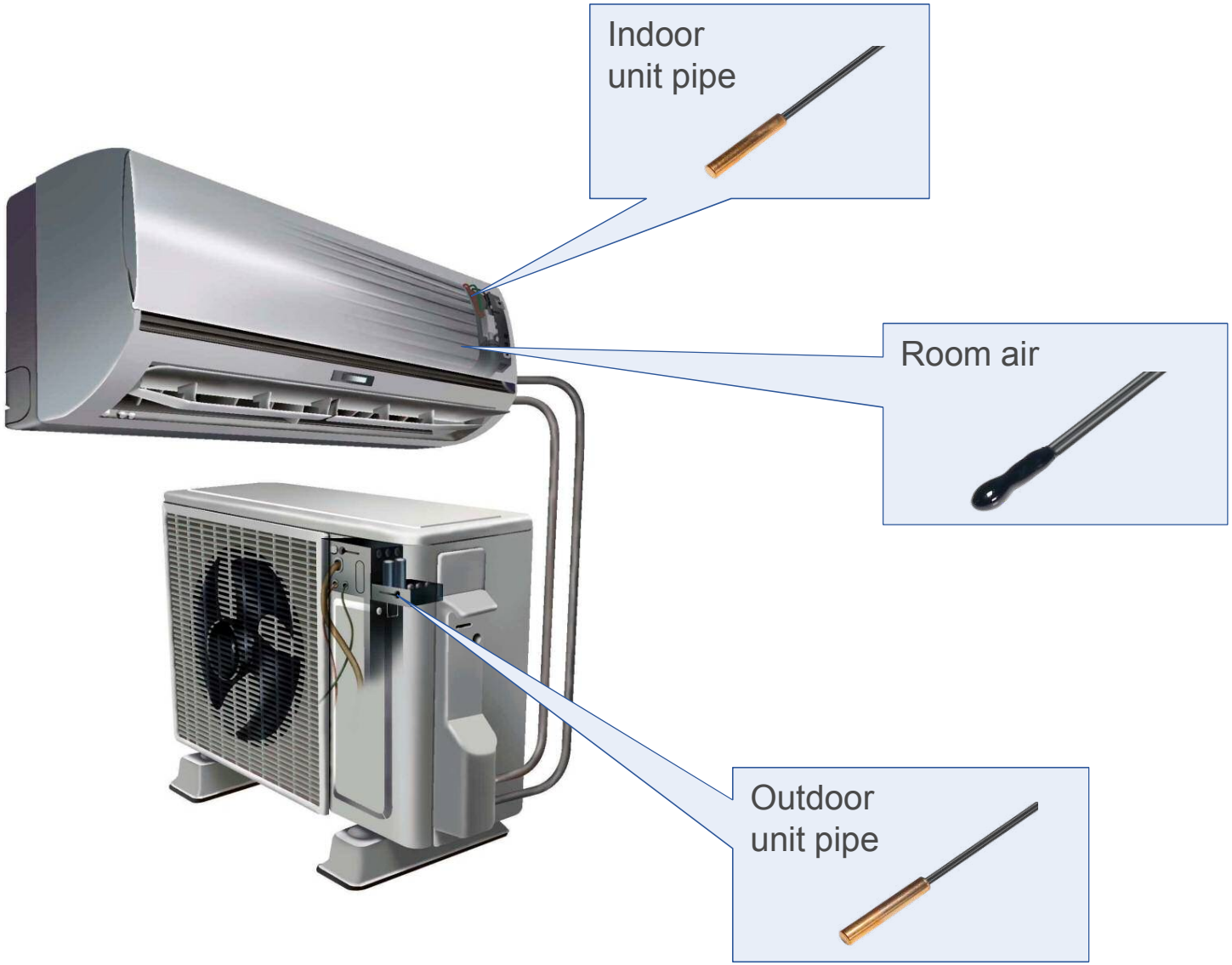
( ): Year-to-year comparison

Main measures to be taken during the 2nd half of FY2016

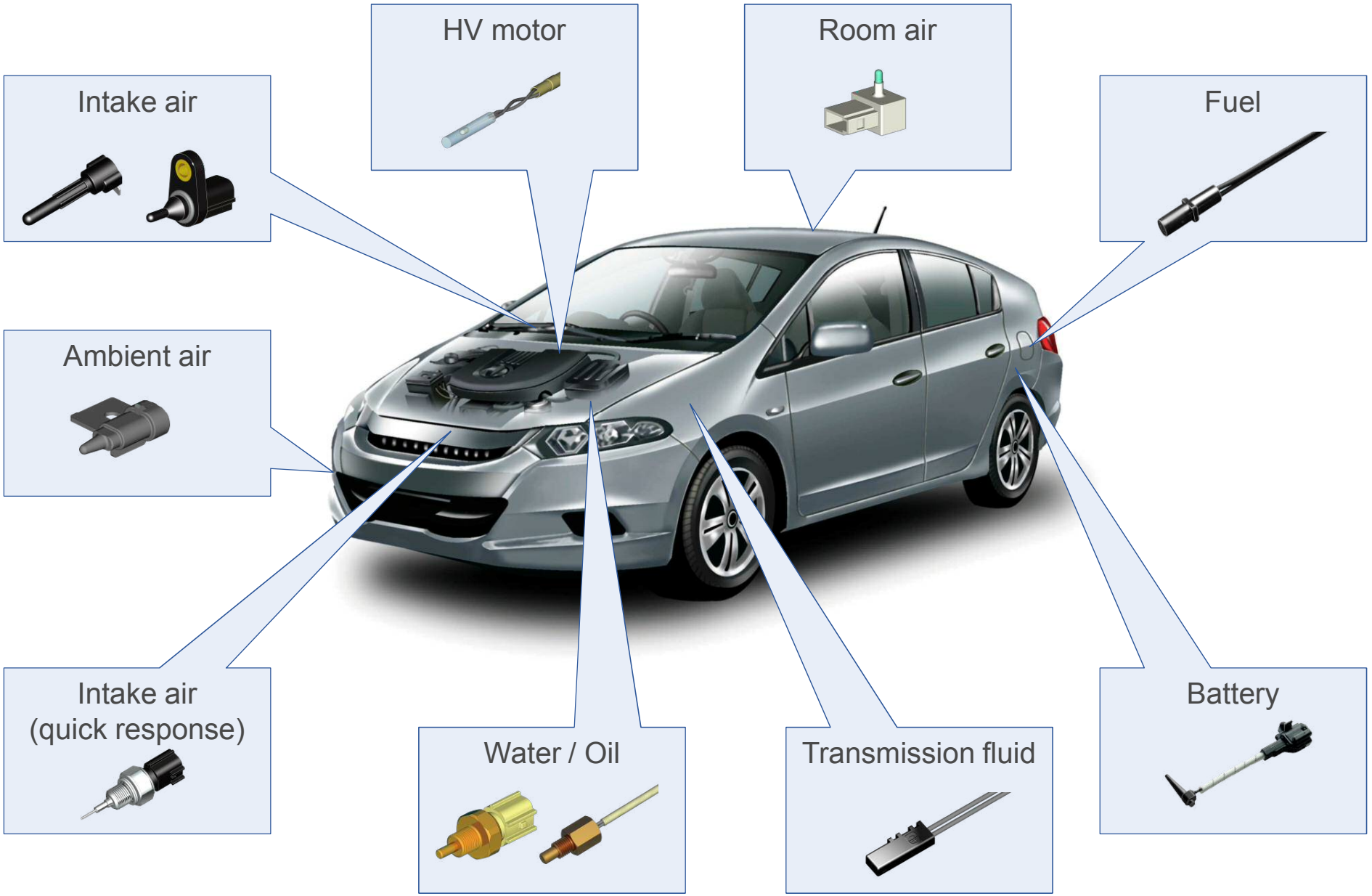
13. Main measures for 2H FY2016

1. Enhance plant equipment for increased demand in the air conditioner market
2. Reduce cost
3. Improve product efficiency (e.g. automatization)
4. Expand business in the automotive field
5. Reinforce R&D system
6. Industry-university collaboration

13-1. Sensors for air conditioners



13-2. Sensors for automobiles



Thank you very much.

Disclaimer regarding forward-looking statements

The foregoing statements regarding future results reflect the Company‘s expectations based on information available at the time of announcement. The information contains certain forward-looking statements that are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements.

References

Definition of terms

<Reference>

Thermistor

A thermistor is a thermally sensitive resistor generally composed of semiconductor materials, and its resistance varies significantly with temperature.

Thermistors are economical and stable, and operate in the temperature range that covers the whole range necessary for ordinary temperature control. They therefore are used in a wide range of applications.

Shibaura produces NTC (negative temperature coefficient) thermistors only.
They exhibit decreasing resistance with increasing temperature, and are used in temperature detection sensors. There are also PTC (positive temperature coefficient) and CTR (critical temperature resistor) thermistors.

PSB thermistor element

Shibaura independently developed glass-encapsulated thermistors.
With excellent thermal stability, mechanical strength and stability, they are now Shibaura's main products.

PSB thermistors are formally patented products in major countries (Japan, the U.S., the U.K., Germany, France, Canada, Italy and Switzerland.)

Number of thermistors installed in a product

<Reference>

Household equipment	Solar system	Shower toilet	Water heater	Highly efficient hot water supply system
	1- 3	2 - 3	2 - 5	10 - 20
Air conditioners	Fan heater	Room A/C	Industrial A/C	
	2 - 3	2 - 5	5 - 15	
Home appliances	Microwave oven	Rice cooker	Refrigerator	IH cooker
	2 - 3	2 - 3	2 - 8	5 - 15
OA	Printer	Copy machine	Multi-functional copier	
	2 - 3	2 - 3	3 - 5	
Industrial equipment	Fire alarm	Machine, robot	Freezing showcase	Freezing container
	2	1 - 2	2 - 5	5 - 10
Automobiles	Car A/C	Intake air, exhaust gas, water, fuel, oil		Hybrid system
	4 - 5	8 - 10		8 - 10

Applications for various temperature ranges

<Reference>

-50℃ ← Shibaura's thermistors cover from -50℃ to 1,000℃ → 1,000℃

0℃ 50℃ 100℃ 300℃ 500℃

Glass coated thermistors (Existing products)	Glass coated thermistors for high temperatures
(Tuna) stock freezer	Hot-water supply
Refrigerator	Rice cooker
Air conditioner	Dishwasher dryer
Automobile (Water temp.)	Copy machine
EcoCute (CO_2 heat pomp)	Microwave oven
	Fan heater
	IH cooker
	Automobile (HV & EV motors)
	Automobile (EGR)
	Oven
	Household (Gas flame)
	Automobile (DPF)

Applications