

Automotive & Industrial Systems Company Business Policy

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Panasonic Corporation

Panasonic

FY2018 Summary

FY2019 Business Policy

Mid-term Strategy

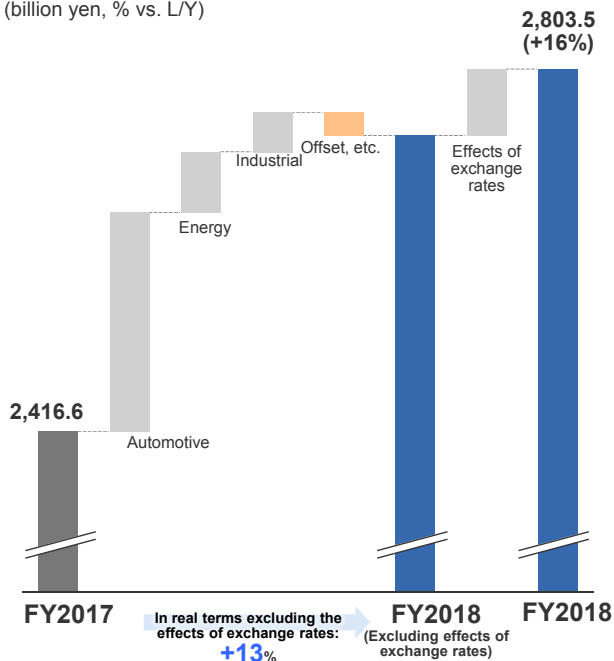
Panasonic

FY2018 Results

■ Sales increased whereas profits decreased vs. L/Y. Note that "profit created from businesses," which exclude special factors, increased in all the businesses.

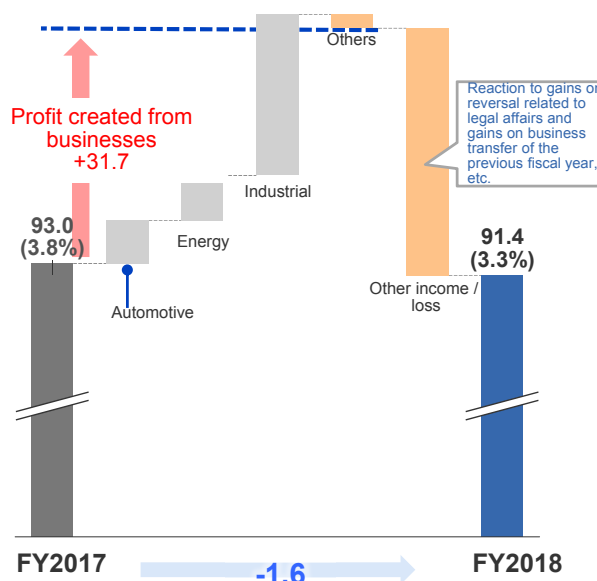
Sales

(billion yen, % vs. L/Y)



Operating profit

(billion yen, % indicates profit rates)









FY2018 Achievements and Issues

* The graphs indicate operating profit analyses.

Automotive	<p>Consolidation of Ficosa, sales and profits increase, etc.</p> <p>Loss costs</p> <p>Increase in R&D depreciation expenses, etc.</p> <p>FY2017</p> <p>FY2018</p> <p>31.7</p>	<p>Achievements</p> <ul style="list-style-type: none"> - New IVI* and cockpit products contributed to sales and profits increase. - Consolidation of Ficosa <p>Issues</p> <ul style="list-style-type: none"> - Loss costs for new product launch put a downward pressure on profit.
Energy	<p>Effects of exchange rates, other income / loss</p> <p>Automotive cylindrical types</p> <p>Automotive prismatic types, small rechargeable batteries, etc.</p> <p>FY2017</p> <p>FY2018</p> <p>11.1</p>	<p>Achievements</p> <ul style="list-style-type: none"> - Small rechargeable batteries shifted to new markets and contributed to profit. <p>Issues</p> <ul style="list-style-type: none"> - Sales increase (automotive cylindrical types) by the Nevada factory lags behind by a fiscal year.
Industrial	<p>Effects of exchange rates, other income / loss</p> <p>Businesses to be turned around</p> <p>Fundamental businesses</p> <p>FY2017</p> <p>FY2018</p> <p>39.9</p>	<p>Achievements</p> <ul style="list-style-type: none"> - Growth of industrial devices - Profitability improved in businesses to be turned around (semiconductors & LCD panels). <p>Issues</p> <ul style="list-style-type: none"> - Delivery problems occurred in part due to demand increase.

* IVI: In-Vehicle Infotainment

Growth Strategies

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Automotive</p>	<ul style="list-style-type: none"> - Started the public road demonstration experiment of autonomous driving cars. - Showcased the concept of the Living Space Autonomous Cabin. - Ficosa's Morocco factory opened. - Capital tie-up with AZAPA Co., Ltd. (model base development) 	 <p>Public road demonstration experiment</p>	<p>Living Space Autonomous Cabin</p> 
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Energy</p>	<ul style="list-style-type: none"> - The Nevada factory started mass production for Tesla. - The Dalian factory started the mass production of automotive prismatic type batteries. - Decided to expand automotive prismatic type batteries to the Himeji factory. - Started examining collaboration with Toyota Motor Corporation on automotive prismatic type batteries. 	<p>Automotive batteries (Prismatic type)</p> 	<p>Automotive batteries (Cylindrical type)</p> 
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Industrial</p>	<ul style="list-style-type: none"> - Panasonic Industrial Devices SUNX became a wholly owned subsidiary. - Motor factory expansion (Zhuhai in China and Kaga in Ishikawa Prefecture, Japan). - Production increase in high-function multi-layer circuit board materials (new Guangzhou factory). 	<p>Pressure sensor</p> 	<p>Servo motor</p> 

FY2018 Summary

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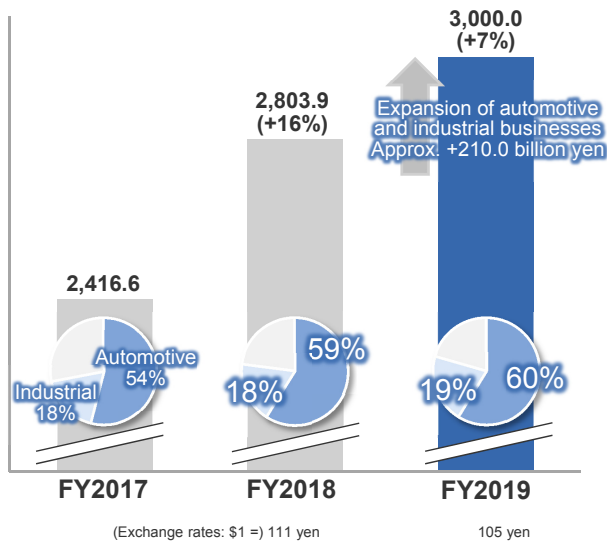
Mid-term Strategy

FY2019 Basic Policy

- The year to start reaping the benefits of large-scale investments and show results.
- Focus on "the automotive and industrial" markets and lead Panasonic by a sales and profit increase.

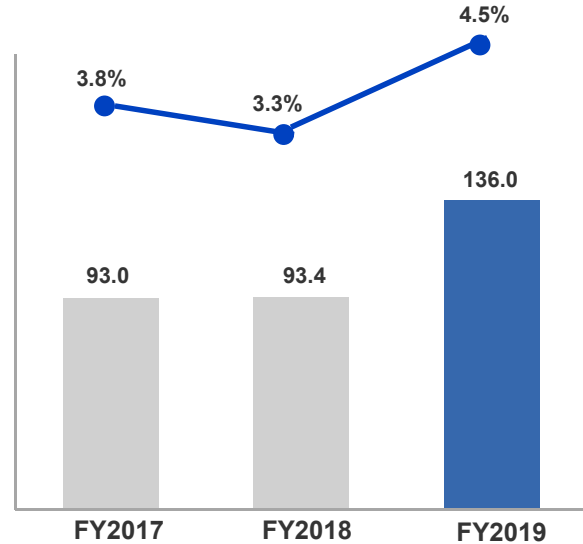
Sales/Ratio of automotive and industrial businesses

(billion yen, % vs. L/Y)



Operating profit/rates

(billion yen)



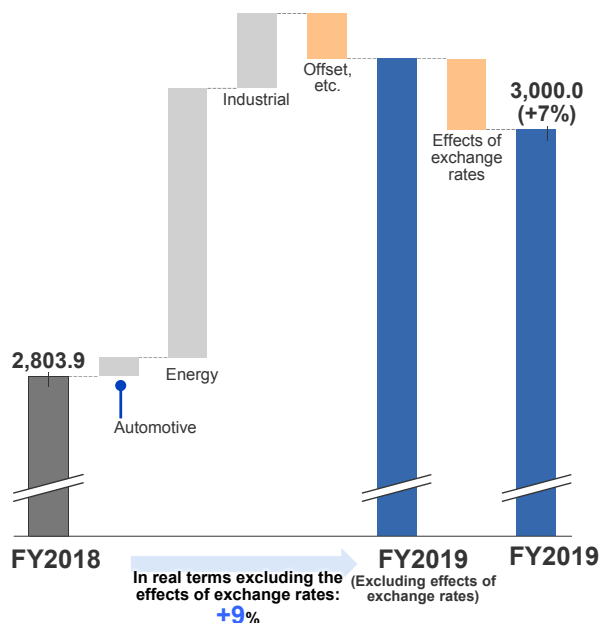
* Restated the results of FY2018 based on the new structure.

FY2019 Management Targets

- The three business groups all achieve sales and profits increase (excluding the effects of exchange rates).
- The energy business's sales increase and the industrial business contribute to a profit increase.

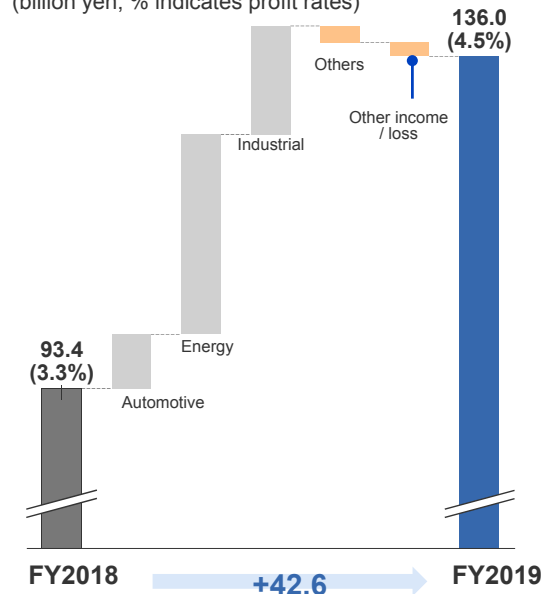
Sales

(billion yen, % vs. L/Y)



Operating profit

(billion yen, % indicates profit rates)



* Restated the FY2018 results based on the new structure.

Business Portfolio

High-growth business (6BD)

Playing roles in the company with sales and earnings growth potential, concentrating resources mainly in automotive and industrial fields

Automotive	Automotive Infotainment Systems, Automotive Electronics Systems, Ficosa International
Energy	Tesla Energy, Automotive Energy
Industrial	Electromechanical Control

Stable-growth business (4BD)

Steady profit generation by competitive or high-share products, and creating investment resource for high-growth business

Energy	Energy Device, Energy Solutions
Industrial	Device Solutions, Electronic Materials

Low-profitable business (2BD)

Improving profitability by thorough initiatives including business transformation and concentration in automotive and industrial fields

Industrial	Panasonic Semiconductor Solutions, Panasonic Liquid Crystal Display
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Composition ratio by business portfolio (FY2019)

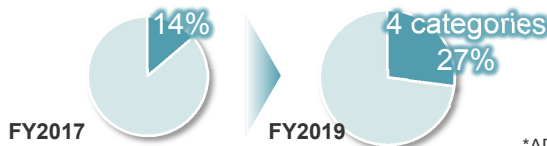


Strategies by Business Group

Pie charts: Sales-based ratios

Automotive

- Four key categories (IVI, cockpits, ADAS*, and electric mechanisms) fully contribute to a sales increase.
- Continue R&D investments for new themes (next-generation cockpits, etc.)



Next-generation cockpit

*ADAS: Advanced Driver Assistance System

Energy

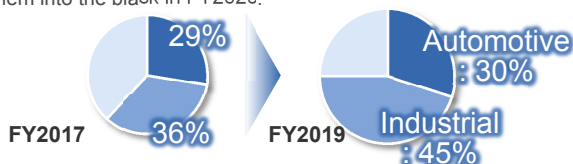
- Accelerate the shift to automotive and industrial fields.
- Launch full-scale operations for factories with large-scale investments (Nevada, Dalian) contributing to an increased profit.



Nevada factory, US

Industrial

- Continue to expand sales and profits by further increasing the ratio of automotive and industrial businesses.
- Steadily improve profitability at "businesses to be turned around" (semiconductors & LCD panels) toward turning them into the black in FY2020.



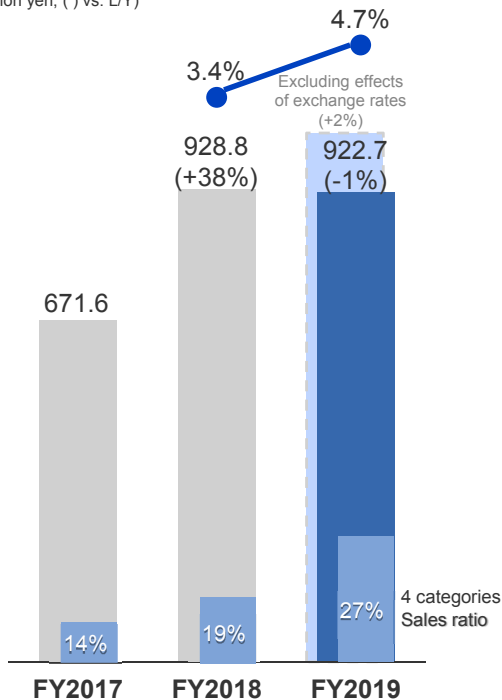
EV relay
HV capacitor

Automotive Business

- Fully expand the four key categories (IVI, cockpit systems, ADAS*, and electric mechanisms).
- Achieve sales increases through new product releases in collaboration with Ficosa (electronic mirrors, communication units, etc.).

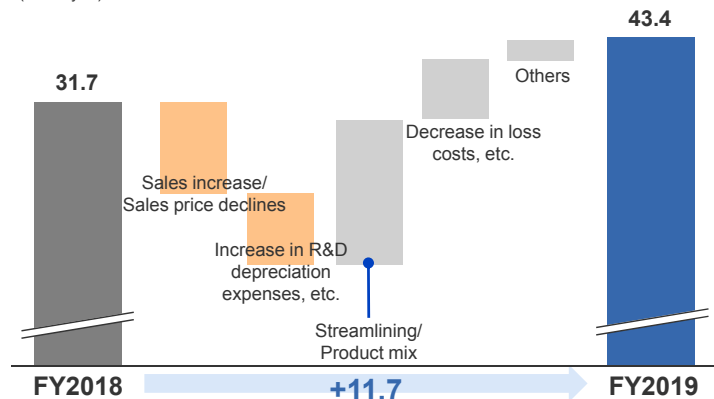
[Sales, operating profit rates]

(billion yen, () vs. L/Y)



[Operating profit analysis]

(billion yen)



[Key initiatives during FY2019]

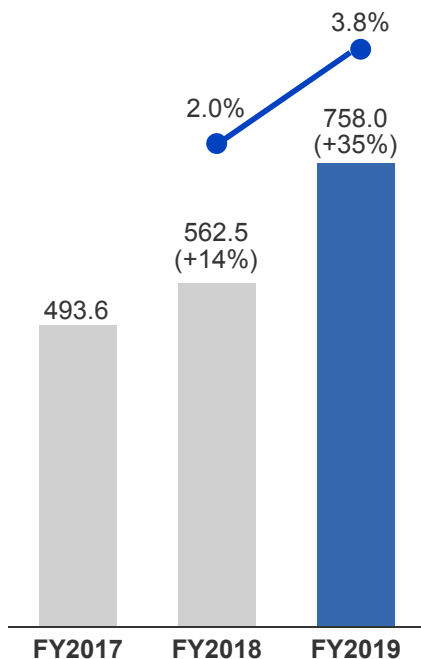
- The car model expansion of IVI and cockpits contributes to a sales increase.
- Reap the Ficosa synergy effects (R&D, manufacturing, procurement).

Energy Business

- Reorganize the Rechargeable Battery Business Division into three business divisions* by customer and industry to reinforce the business base.
- Automotive batteries achieve a significant sales and profit increase through a production increase in sync with demand from key customers.

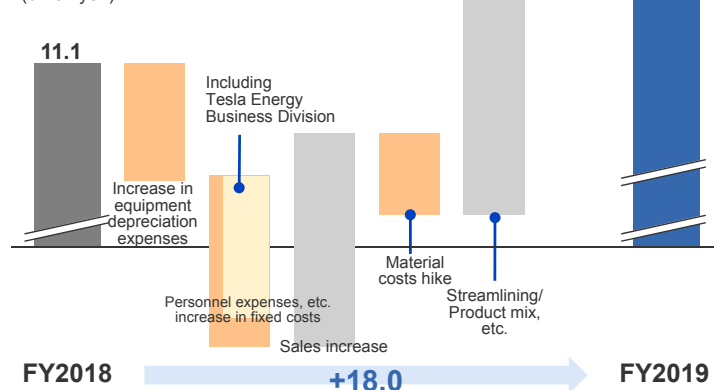
[Sales, operating profit rates]

(billion yen, () vs. L/Y)



[Operating profit analysis]

(billion yen)



[Key initiatives during FY2019]

- Off-set increases in depreciation expenses and fixed costs due to large-scale investments by sales increase, etc.
- Improve profitability by increasing the utilization rate in cooperation with customers.

* FY2018:
Rechargeable Battery Business Division
Tesla BU
Energy Device Business Division

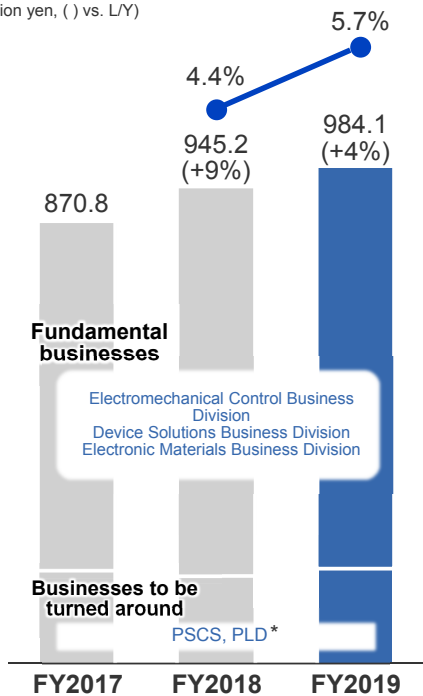
FY2019:
Energy Solutions Business Division
Tesla Energy Business Division
Automotive Energy Business division
Energy Device Business Division

Industrial Business

- **Fundamental businesses:** Increase profits through systematization/modularization and devices with dominant market shares.
- **Businesses to be turned around:** Improve marginal profit by enhancing the business structure.

[Sales, operating profit rates]

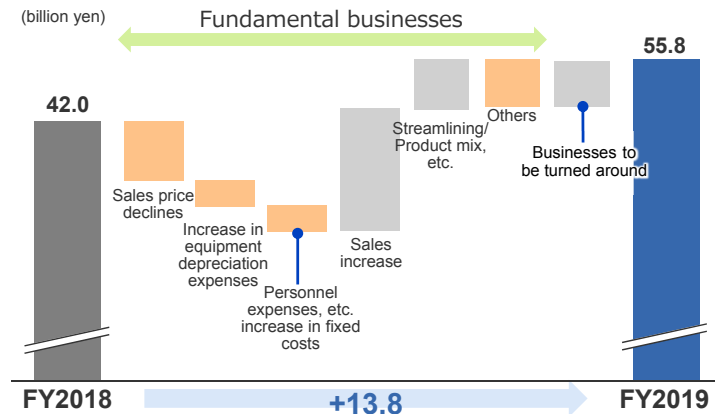
(billion yen, () vs. L/Y)



* Restated the results of FY2018 based on the new structure.

[Operating profit analysis]

(billion yen)



[Key initiatives during FY2019]

- Expand the sales increase of industrial devices adapted for automation needs.
- Increase the sales of automotive devices (EV relays, passive components, etc.).
- Reduce the deficit of semiconductors and LCD panels with the prospect of turning them into the black in FY2020.

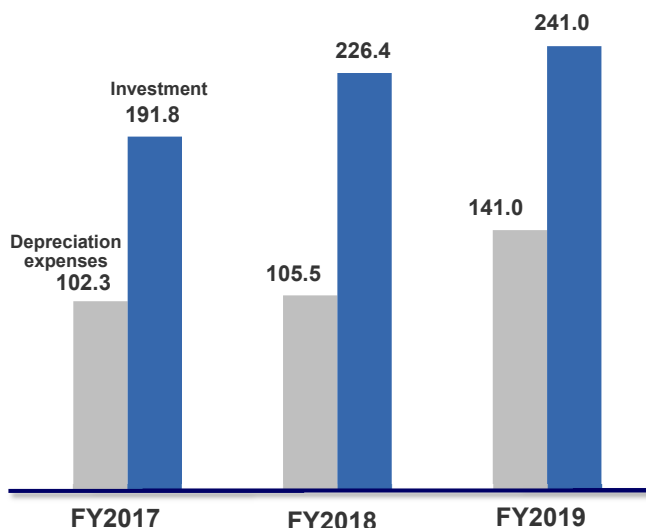
* PSCS: Panasonic Semiconductor Solutions Co., Ltd.
PLD: Panasonic Liquid Crystal Display Co., Ltd.

AIS Company Capital Investment Strategy

- **Continue to invest aggressively with a focus on automotive batteries through close collaboration with customers.**
- **Gradually make large-scale investments while assessing the demand, on the basis of risk minimization.**

[Capital investments, equipment depreciation expenses] (Tangible assets only)

(billion yen)



* Restated the results of FY2018 based on the new structure.

Automotive battery investment



- Nevada: Operation launch of additional equipment in line with an increase in vehicle production



- Himeji: Preparations for the start of mass production during FY2020



- Dalian: Increase production capacity based on customers' production plans.



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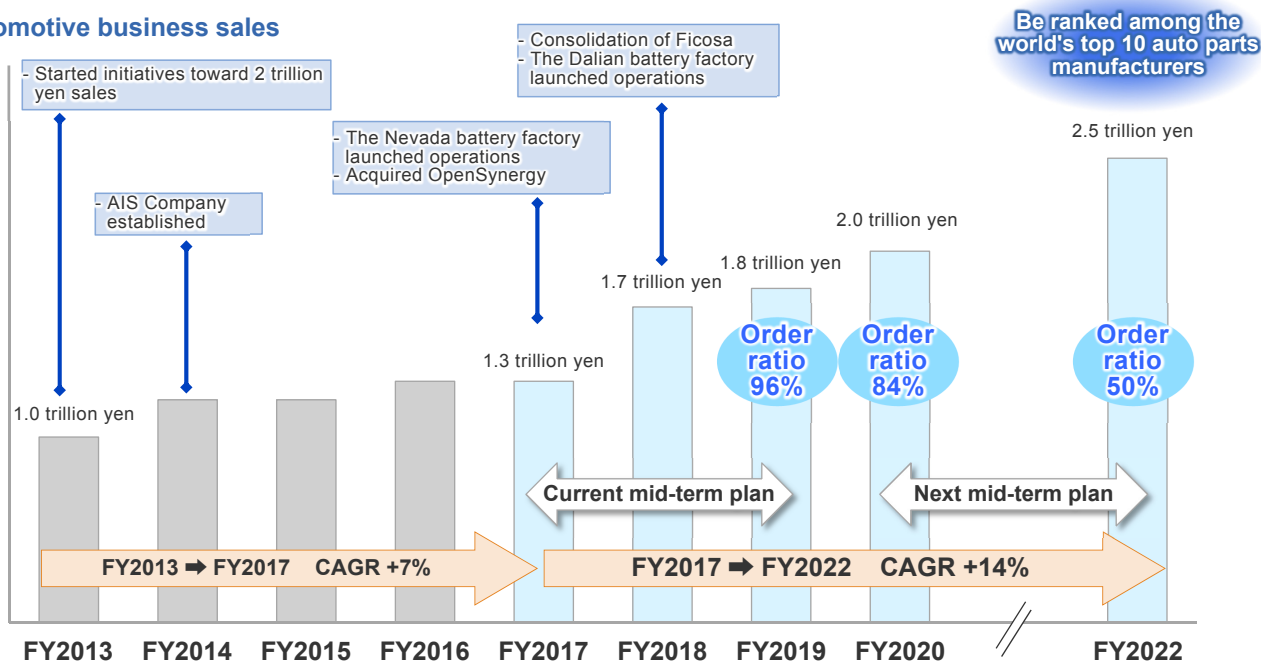
Mid-term Strategy



Progress toward 2 Trillion Sales in Automotive Business

- Expected to achieve the initial "2 trillion yen in FY2019" target in FY2020 with a one-year delay.
- Aim to achieve the sales target of 2.5 trillion yen and be ranked among "the world's top 10" in FY2022.

Automotive business sales



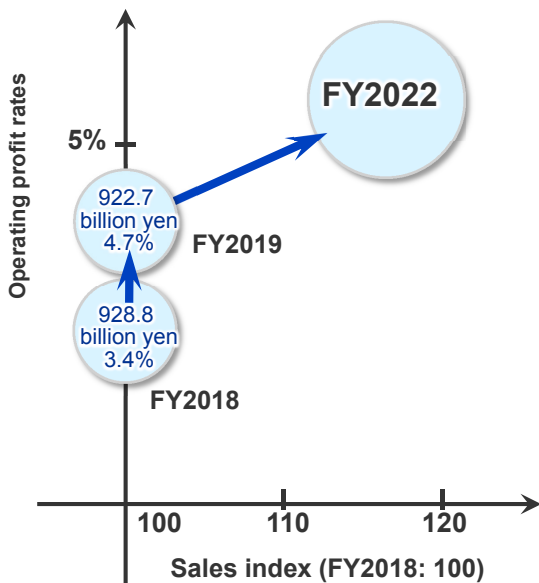
Mid-term Growth Scenario: Automotive Business

- Contribute to the evolution of cars through the four key categories "IVI, cockpits, ADAS, and electric mechanisms."
- Take up challenges for new service businesses in a mobility society.

[Sales growth/operating profit rates*]

(billion yen, %)

*Size of circle: sales scale



Achieve profit growth by focusing on the four key categories.

- Increase the market share through the integrated systems of "IVI + cockpits."



- Expand businesses by building a track record of receiving orders and mass production of low-speed ADAS and electric mechanisms.



ADAS/Autonomous parking

Automotive battery charger

Take up challenges for new service businesses.

- Contribute to mobility services linked to hardware.

Expand areas where we make contributions to transporting people/objects.



Integrated cockpits

ADAS/Autonomous driving

EV/electric mechanisms

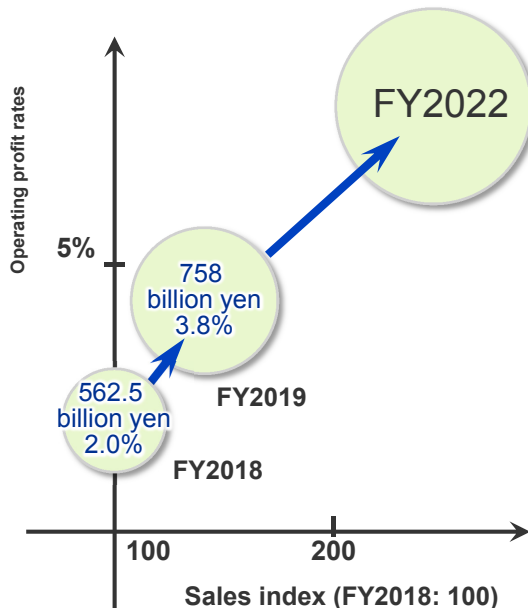
Mid-term Growth Scenario: Energy Business

- Reinforce "manufacturing" and contribute to the proliferation of electric vehicles.
- Take up challenges of "using" to create new demand.

[Sales growth/operating profit rates*]

(billion yen, %)

*Size of circle: sales scale



Reinforce "manufacturing"

- Respond to the dynamic automotive battery demand while ensuring a reliable investment recovery.



- Himeji: Start mass production during FY2020 and expand thereafter. (prismatic types)



- Nevada: Toward more than 35 GWh/year (cylindrical types)



- Dalian: Increase production lines by customer. (prismatic types)



Take up challenges of "using"

- Make new contributions in the information infrastructure area (power storage systems).
- Build new ecosystems with partners (sharing services, etc.).



Mid-term Growth Scenario: Energy Business (Automotive Batteries)

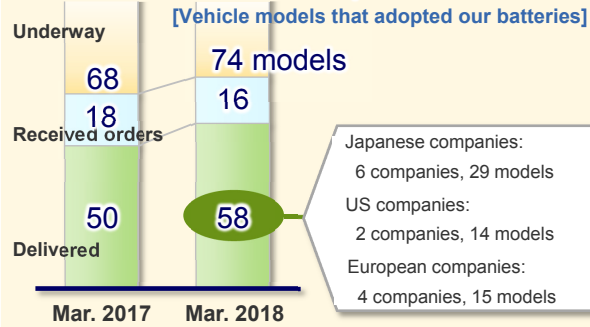
- Deepen partnership with "top runner" customers.
- Further evolving "the world's No. 1 batteries" (cylindrical and prismatic types)

Deepen customer relationships

<Collaborate as a "partner," rather than as a "supplier">

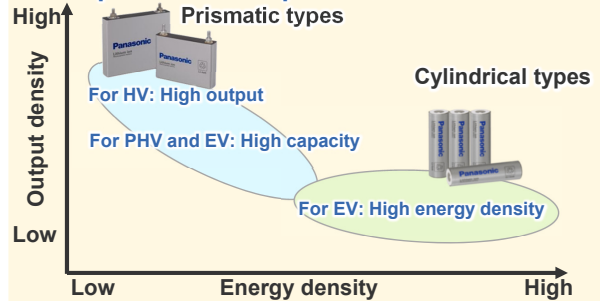


<Increase transactions with "top runner" customers>



Lead the industry through product competitiveness

<Superiority of our batteries>
 In addition to high safety,
 product development suitable for use



<Further evolution>

- New materials development: Industry-leading energy density (Increase nickel ratio, optimize cobalt ratio)
- New structure development: Improving safety and capacity per volume

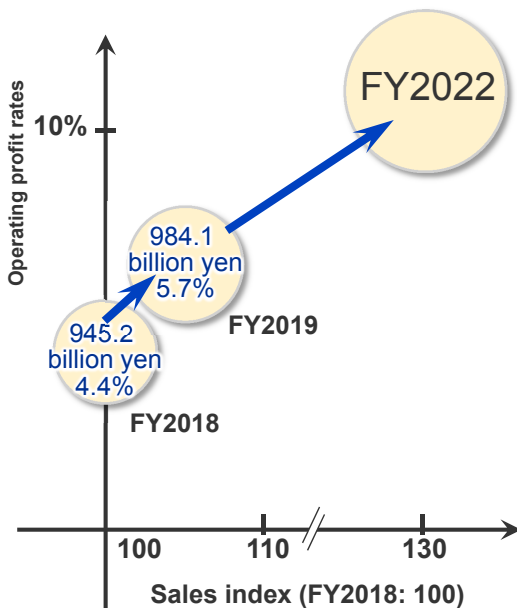
Mid-term Growth Scenario: Industrial Business

- Achieve stable growth by concentrating on "labor saving," "information communication infrastructure," and "automotive electric systems," whose demands are strong in the society.
- Pursue high profitability through "modularization" and "runaway high market share" based on competitive devices.

[Sales growth/operating profit rates*]

(billion yen, %)

*Size of circle: sales scale



Labor-saving factory

- Increase customer value through core components that support automation.



Industrial devices

Information communication infrastructure

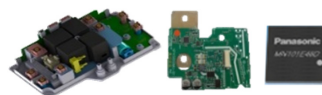
- Expanding for base stations and data centers, by using unique technologies as advantages.



Multi-layer circuit board materials
 Conductive capacitors

Automotive (Electric mechanisms, autonomous driving)

- Increase automotive modules with competitive devices at the core.



Automotive power control units
 (EV relays + current sensors + battery monitor ICs)

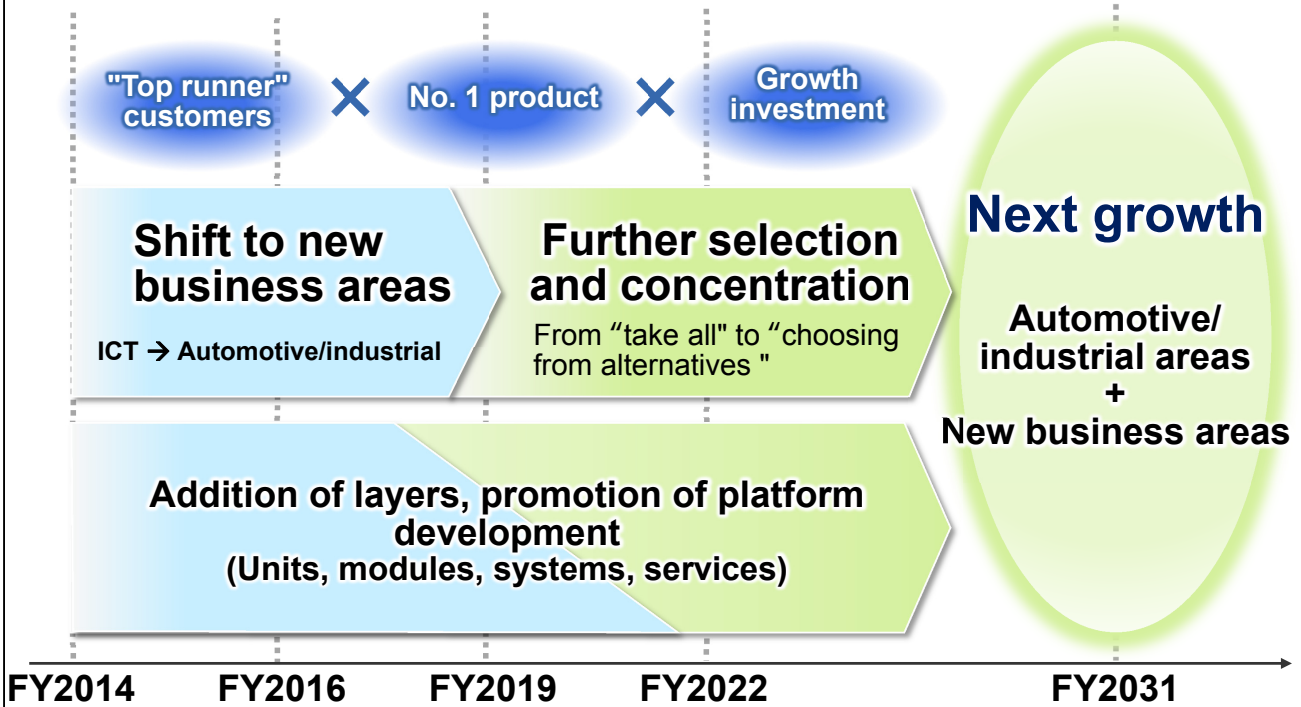
- Highly reliable technologies that customers continue to select.



Inductors

Mid-term Concepts

- Partner up with "top runner" customers and continue to launch No. 1 products.
- Create new business areas to aim for "next growth."



Panasonic

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The risks, uncertainties and other factors referred to above include, but are not limited to, economic conditions, particularly consumer spending and corporate capital expenditures in the Americas, Europe, Japan, China and other Asian countries; volatility in demand for electronic equipment and components from business and industrial customers, as well as consumers in many product and geographical markets; the possibility that excessive currency rate fluctuations of the U.S. dollar, the euro, the Chinese yuan and other currencies against the yen may adversely affect costs and prices of Panasonic's products and services and certain other transactions that are denominated in these foreign currencies; the possibility of the Panasonic Group incurring additional costs of raising funds, because of changes in the fund raising environment; the possibility of the Panasonic Group not being able to respond to rapid technological changes and changing consumer preferences with timely and cost-effective introductions of new products in markets that are highly competitive in terms of both price and technology; the possibility of not achieving expected results or incurring unexpected losses in connection with the alliances or mergers and acquisitions; the possibility of not being able to achieve its business objectives through joint ventures and other collaborative agreements with other companies, including due to the pressure of price reduction exceeding that which can be achieved by its effort and decrease in demand for products from business partners which Panasonic highly depends on in BtoB business areas; the possibility of the Panasonic Group not being able to maintain competitive strength in many product and geographical areas; the possibility of incurring expenses resulting from any defects in products or services of the Panasonic Group; the possibility that the Panasonic Group may face intellectual property infringement claims by third parties; current and potential, direct and indirect restrictions imposed by other countries over trade, manufacturing, labor and operations; fluctuations in market prices of securities and other financial assets in which the Panasonic Group has holdings or changes in valuation of non-financial assets, including property, plant and equipment, goodwill and deferred tax assets; future changes or revisions to accounting policies or accounting rules; the possibility of incurring expenses resulting from a leakage of customers' or confidential information from Panasonic Group systems due to unauthorized access or a detection of vulnerability of network-connected products of the Panasonic Group; as well as natural disasters including earthquakes, prevalence of infectious diseases throughout the world, disruption of supply chain and other events that may negatively impact business activities of the Panasonic Group. The factors listed above are not all-inclusive and further information is contained in the most recent English translated version of Panasonic's securities reports under the FIEA and any other documents which are disclosed on its website.

(Reference) Details of each business whose sales are disclosed

Businesses whose sales are disclosed		Major products	
Automotive	Automotive Infotainment Systems Business Division		<ul style="list-style-type: none"> IVI, cockpit systems, car navigation systems, car AV systems, car speakers, etc.
	Automotive Electronics Systems Business Division		<ul style="list-style-type: none"> On board charging systems, camera modules, back & corner sensors, etc.
	Ficosa International, S.A.		<ul style="list-style-type: none"> Automotive mirrors, shifter systems, communication modules, etc.
Energy	Energy Device Business Division		<ul style="list-style-type: none"> Dry batteries, nickel metal-hydride rechargeable batteries, micro batteries, etc.
	Energy Solutions Business Division		<ul style="list-style-type: none"> Small lithium ion batteries, battery modules for storage, power storage systems, etc.
	Tesla Energy Business Division		<ul style="list-style-type: none"> Automotive/power storage cylindrical type lithium ion batteries, etc.
	Automotive Energy Business Division		<ul style="list-style-type: none"> Automotive prismatic-type lithium ion batteries, automotive nickel metal-hydride rechargeable batteries, etc.
Industrial	Electromechanical Control Business Division		<ul style="list-style-type: none"> Relays, connectors, switches, automotive power supplies, motors, FA sensors, etc.
	Device Solutions Business Division		<ul style="list-style-type: none"> Conductive polymer capacitors, resistors, inductors, inertial sensors, etc.
	Electronic Materials Business Division		<ul style="list-style-type: none"> Electronic circuit board materials, plastic molding compounds, encapsulation materials, advanced films, etc.
	Panasonic Semiconductor Solutions Co., Ltd.		<ul style="list-style-type: none"> IC/LSI, image sensors, compound semiconductors, lead frames, etc.
	Panasonic Liquid Crystal Display Co., Ltd.		<ul style="list-style-type: none"> IPS liquid crystal display panel