



Panasonic Automotive Systems Medium-to Long-term Strategy

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President and Representative Director
CEO
Panasonic Automotive Systems Co., Ltd.

- 1. Automotive Segment Overview**
- 2. Summary of FY2020 through FY2022**
- 3. Our Ideal Vision**
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- 5. Initiatives for FY2025**
- 6. Directions for CY2030**

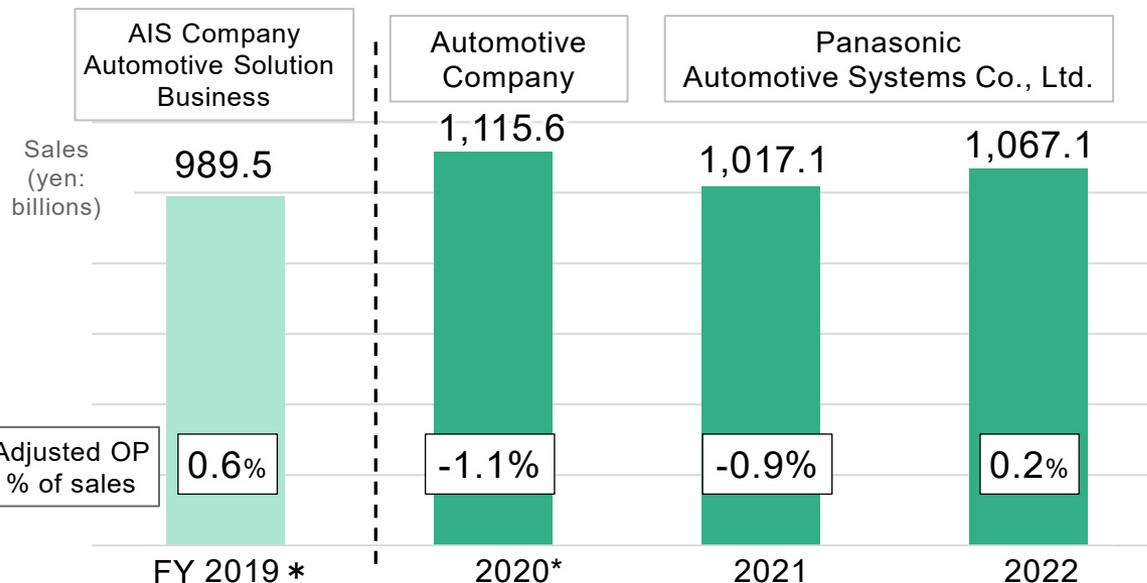
Automotive Segment Overview

Company name	Panasonic Automotive Systems Co., Ltd.																	
Representative	President and Representative Director CEO Masashi Nagayasu																	
Business	Development, manufacturing, and sales of cockpit systems, ADAS (Advanced Driver Assistance Systems) and related devices, onboard charging systems, and systems and devices for xEVs																	
Number of bases	Overseas 46 bases, Japan 15 bases		(As of April 2022)															
Financial results	<table border="1"> <thead> <tr> <th style="background-color: #e0f2f1;">yen : billions</th> <th style="background-color: #e0f2f1;">FY2022 results</th> <th style="background-color: #e0f2f1;">Vs.FY2021</th> </tr> </thead> <tbody> <tr> <td>Sales</td> <td>1,067.1</td> <td>105%</td> </tr> <tr> <td>Adjusted OP (% of sales)</td> <td>2.3 (0.2%)</td> <td>+11.6</td> </tr> <tr> <td>OP (% of sales)</td> <td>1.3 (0.1%)</td> <td>+13.1</td> </tr> <tr> <td>EBITDA (% of sales)</td> <td>57.0 (5.3%)</td> <td>+18.0</td> </tr> </tbody> </table>	yen : billions	FY2022 results	Vs.FY2021	Sales	1,067.1	105%	Adjusted OP (% of sales)	2.3 (0.2%)	+11.6	OP (% of sales)	1.3 (0.1%)	+13.1	EBITDA (% of sales)	57.0 (5.3%)	+18.0	<p style="text-align: center;"><u>Sales breakdown</u></p> <p style="text-align: center;">*Other segment products, etc</p>	
yen : billions	FY2022 results	Vs.FY2021																
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Summary of FY2020 through FY2022

- Solved issues that the rapid expansion of businesses brought.
- Newly established scheme has enabled to improving profitability



■ Results of business activities through Fiscal 2019

- Expanded business scale.
- Grew into a leading player in the infotainment field.
- Created new businesses such as ADAS**
- Operations beyond control limits

Impairment loss on development expenses in European issues business

Initiatives (FY2020 -)	Results
Reinforcing the decision-making process prior to business award <ul style="list-style-type: none"> • Defined required items for reviewing • Increased scrutiny by institutional decisions 	<ul style="list-style-type: none"> • Business awards which generate sales from FY2023 ensure probability at the time of mass production.
Reinforcing the post-award management system	<ul style="list-style-type: none"> • Stabilized production on a high difficulty onboard charging systems launch • Appropriate investments under control after development costs peaked in FY2020. • Improving the efficiency of software development created 10 billion yen effect

*Financial results of the organization in FY2019 & FY2020

**Advanced Driver Assistance Systems

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Our Ideal Vision

Mission

(Purpose as an organization)

Create a sustainable mobility-society
to promote a better life for everyone

Vision

(Ideal state of the company)



Slogan

Heartmotive
Connecting Our Hearts to the
Journey

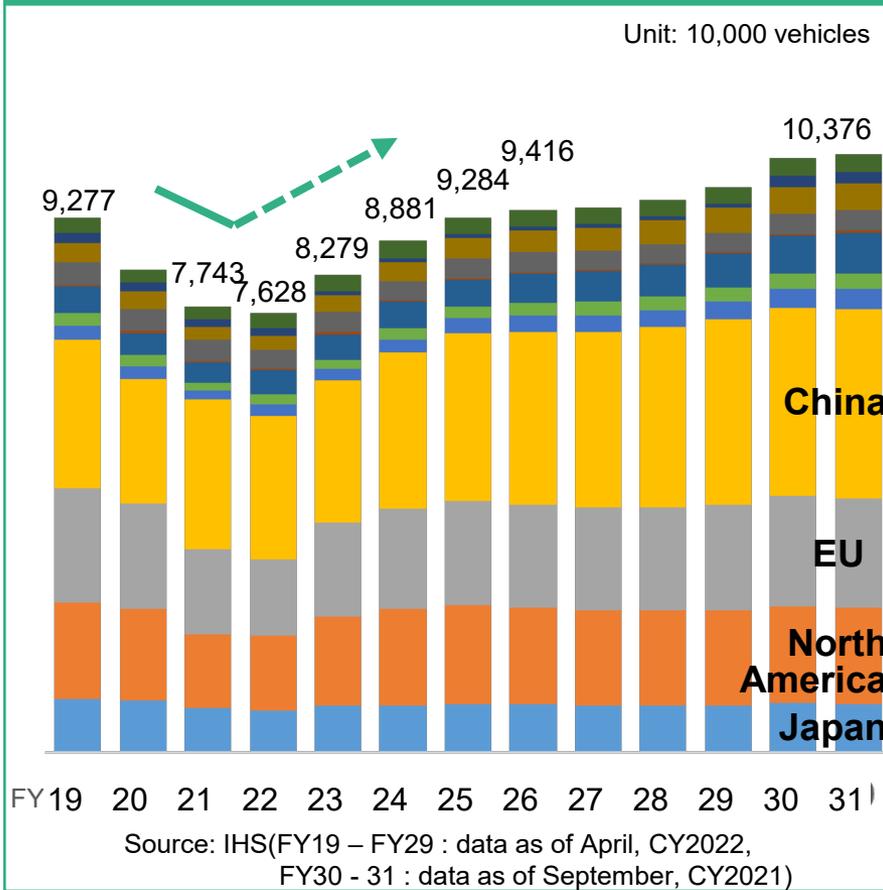
“Sustainable mobility society” in the mission is our ideal society to realize. We will solve social issues related to every type of movement, such as environmental problem, traffic congestion, and traffic accident fatality and realize the society in which every person find “Connecting Our Hearts to the Journey” experience in a daily life.

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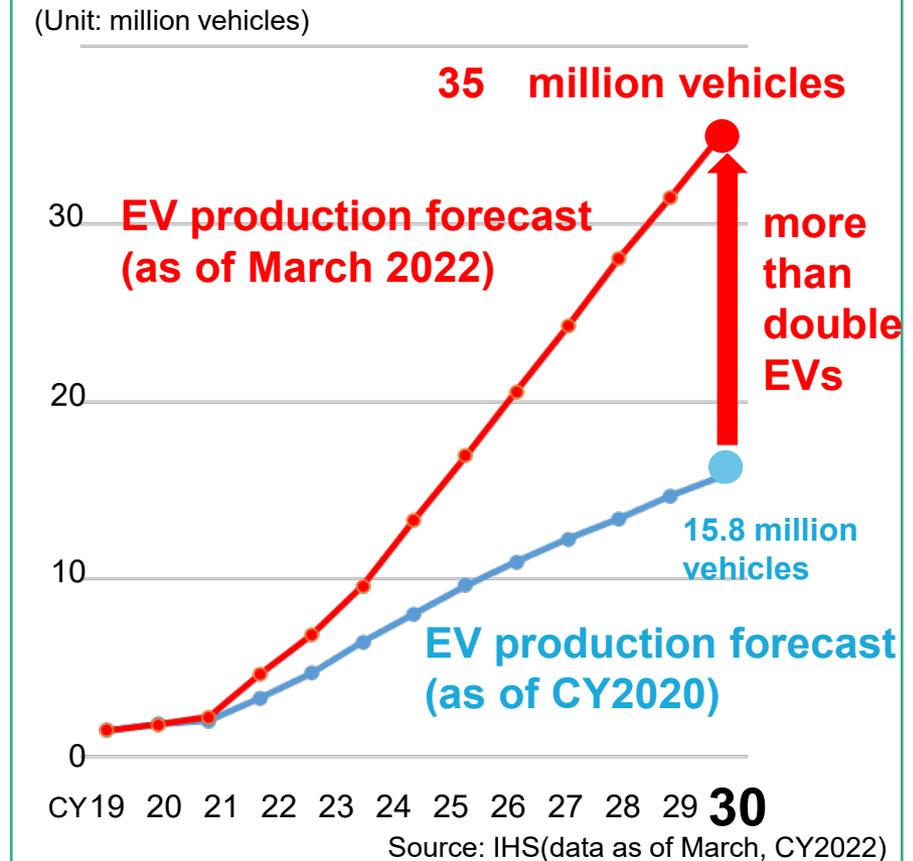
Automotive Market Trends - Global production, EV acceleration -

- Global vehicle production shifted to a recovery trend from FY2023. However, the risk of a prolonged semiconductor shortage continues
- In FY2022, the trend of EV accelerated rapidly. More than 30% of new car seem to be EV in CY2030.

Global vehicle production forecast



Comparison of EV production forecasts



Trends in Vehicle Development

- Evolution of cars accelerates due to a movement toward electrification and service

ECU* integration

IVI is integrated into meter and other functions as CDC**

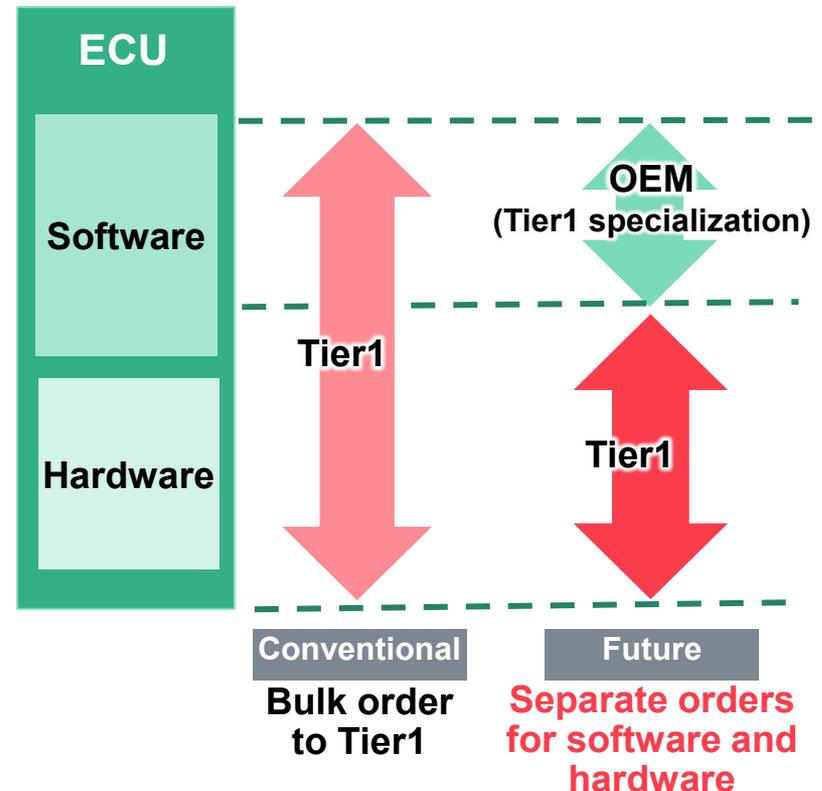


*ECU : Electronic Control Unit
** CDC : Cockpit Domain Controller

***HUD : Head-up Display
****OTA : Over-the-Air (Data transmission and reception via wireless communication)

Separate development of software and hardware

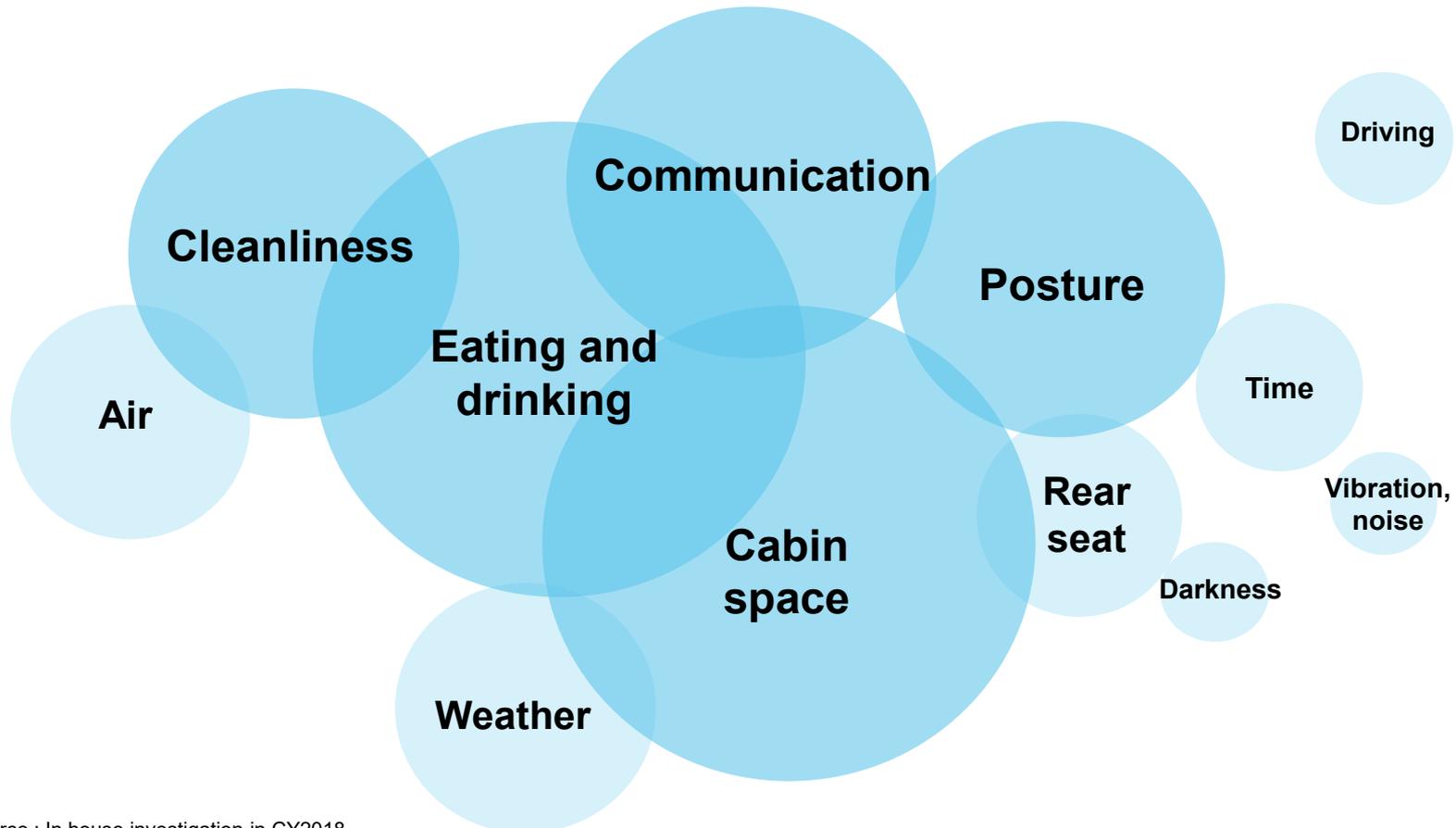
The role of Tier 1 has changed



Diversity in Value of the Mobility

■ Customer analysis reveals various expectations for cabin space

Customer Analysis in cabin space | Keyword



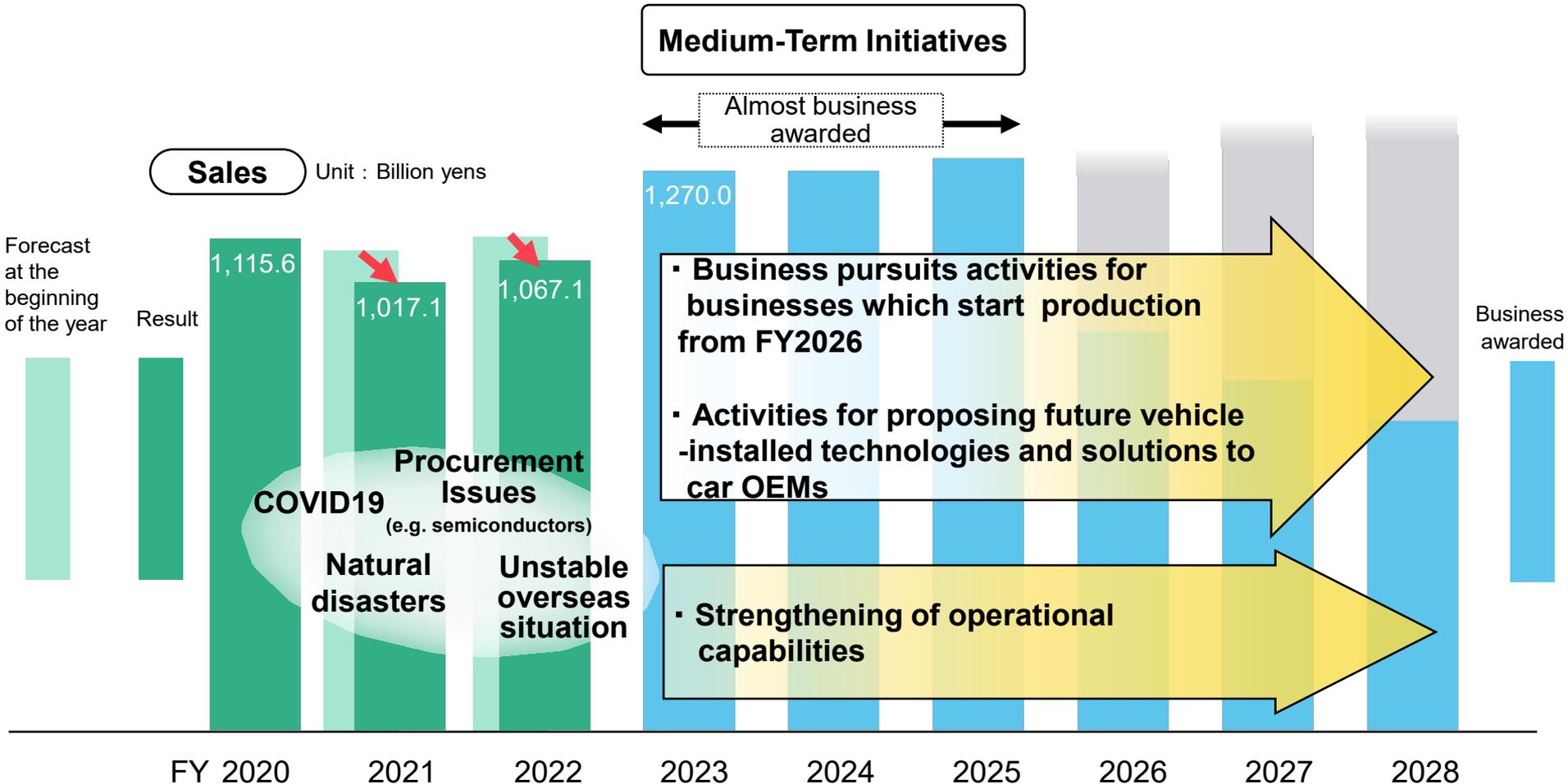
Source : In house investigation in CY2018
Subject of the questionnaire : Family-use cars in Japan

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Characteristics of Automotive Business, Medium-Term Initiatives

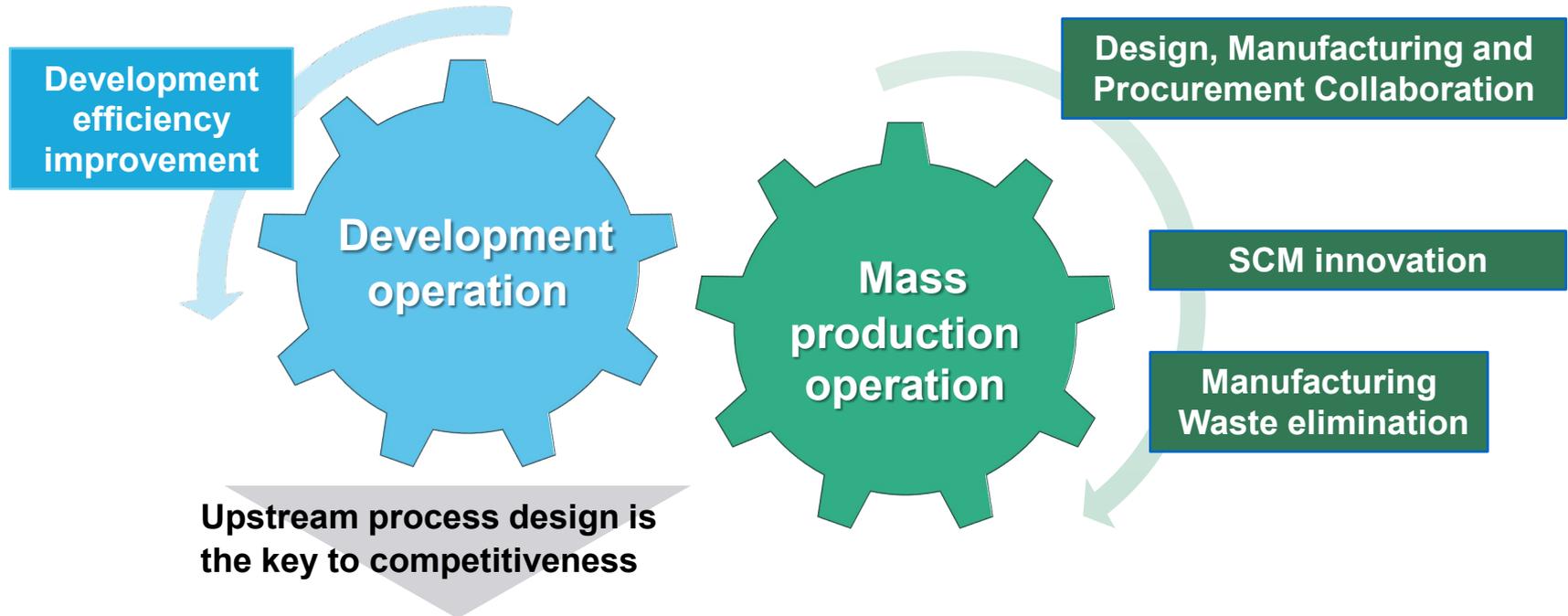
■ Concentrate on reinforcing agility to adopt environmental change by enhancing operational capabilities for three years from FY2023.

⇒ Leads to higher profitability, improved cash flow, and enhanced competitiveness



Strengthening of Operational Capabilities

- Collaborating across organizational silos in all phases of business pursuits, development, and mass production to refine and establish the system for strengthening product capabilities and ability to respond to changes

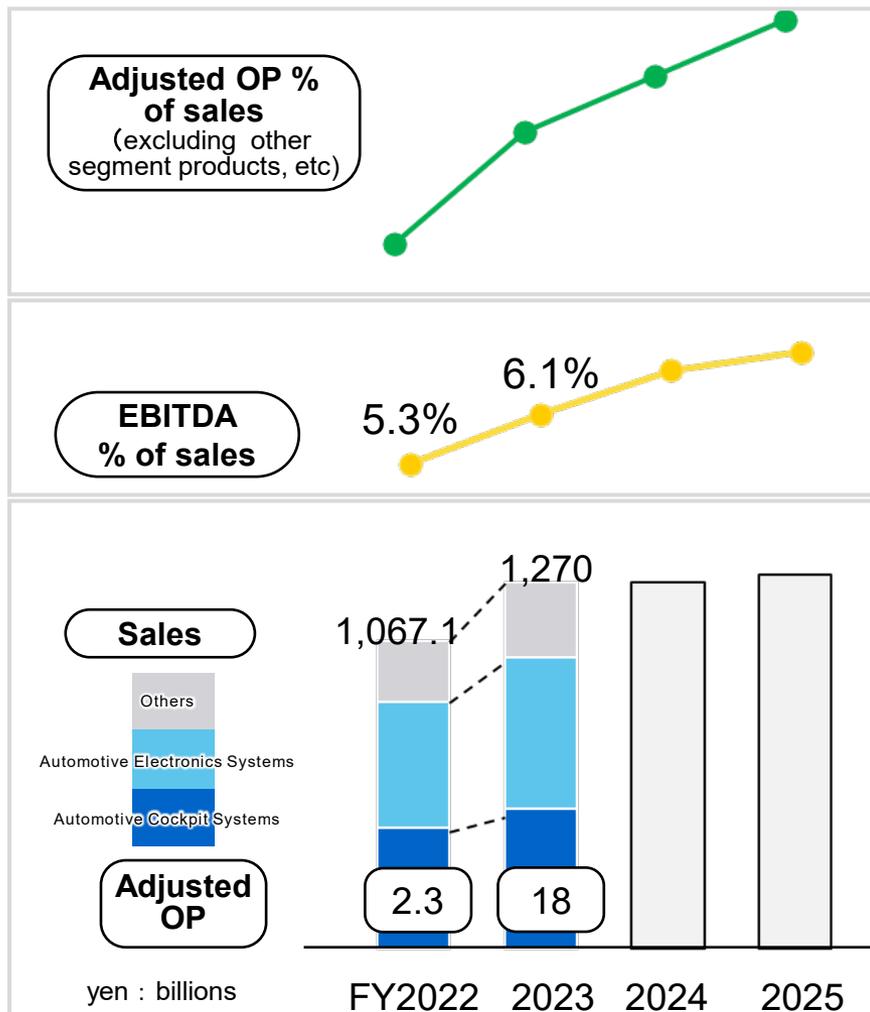


Target	FY2025 Software development at Automotive Cockpit Systems (vs.FY2022)
	<ul style="list-style-type: none">▪ Development productivity : 3 ×▪ Number of architect* : 1.5 ×

* Architect : Director of Development Technology, who designs optimal method and structure of the program in large-scale system development, including hardware, software, and services.
Method and structural design are the source of QCD competitiveness for the entire product development.

FY2023 Forecast, FY2025 Target

■ While sales will increase moderately toward FY2025, the company will move toward a cash-generating structure by improving profitability and strengthening operational capabilities



FY2023 Forecast

*Reclassified FY2022 results

yen : billions	FY2022 results	FY2023 forecast	Vs.FY2022*
Sales	1,067.1	1,270.0	119%
Adjusted OP (% of sales)	2.3 (0.2%)	18.0 (1.4%)	+15.6
OP (% of sales)	1.3 (0.1%)	18.0 (1.4%)	+16.6
EBITDA (% of sales)	57.0 (5.3%)	77.0 (6.1%)	+19.9

Target

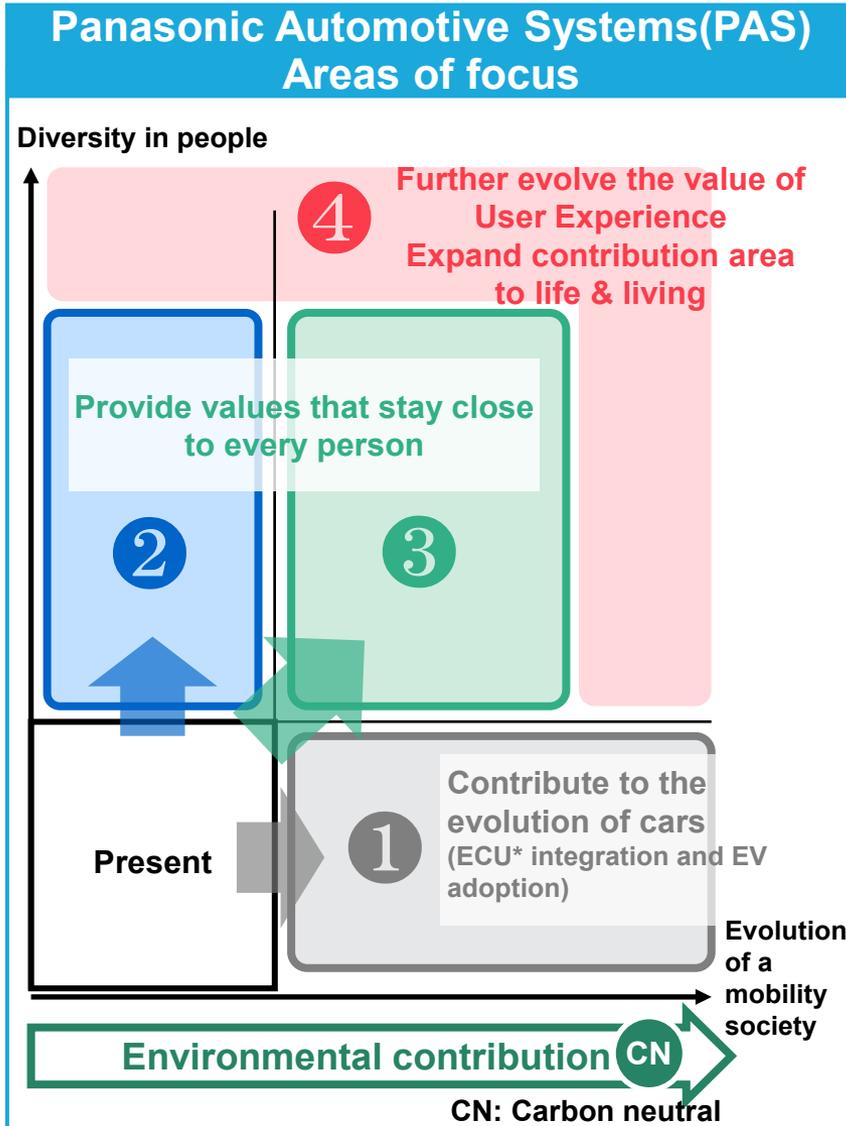
■ Cumulative operating CF (FY2023-2025)
200 billion yen (FY22:negative)

■ ROIC (FY2025)
8.5% (FY22:1.6%)

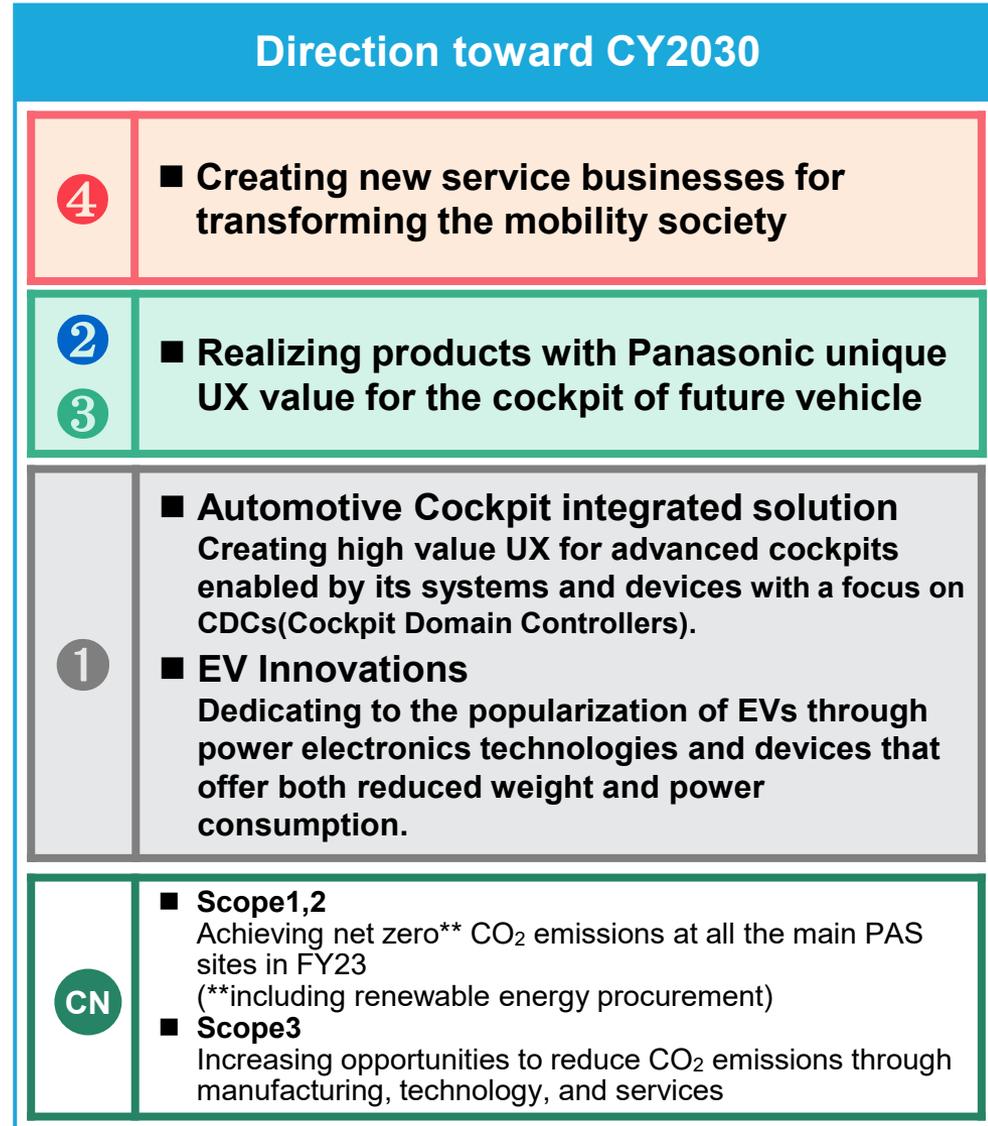
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Directions for CY2030

Towards realizing the mission

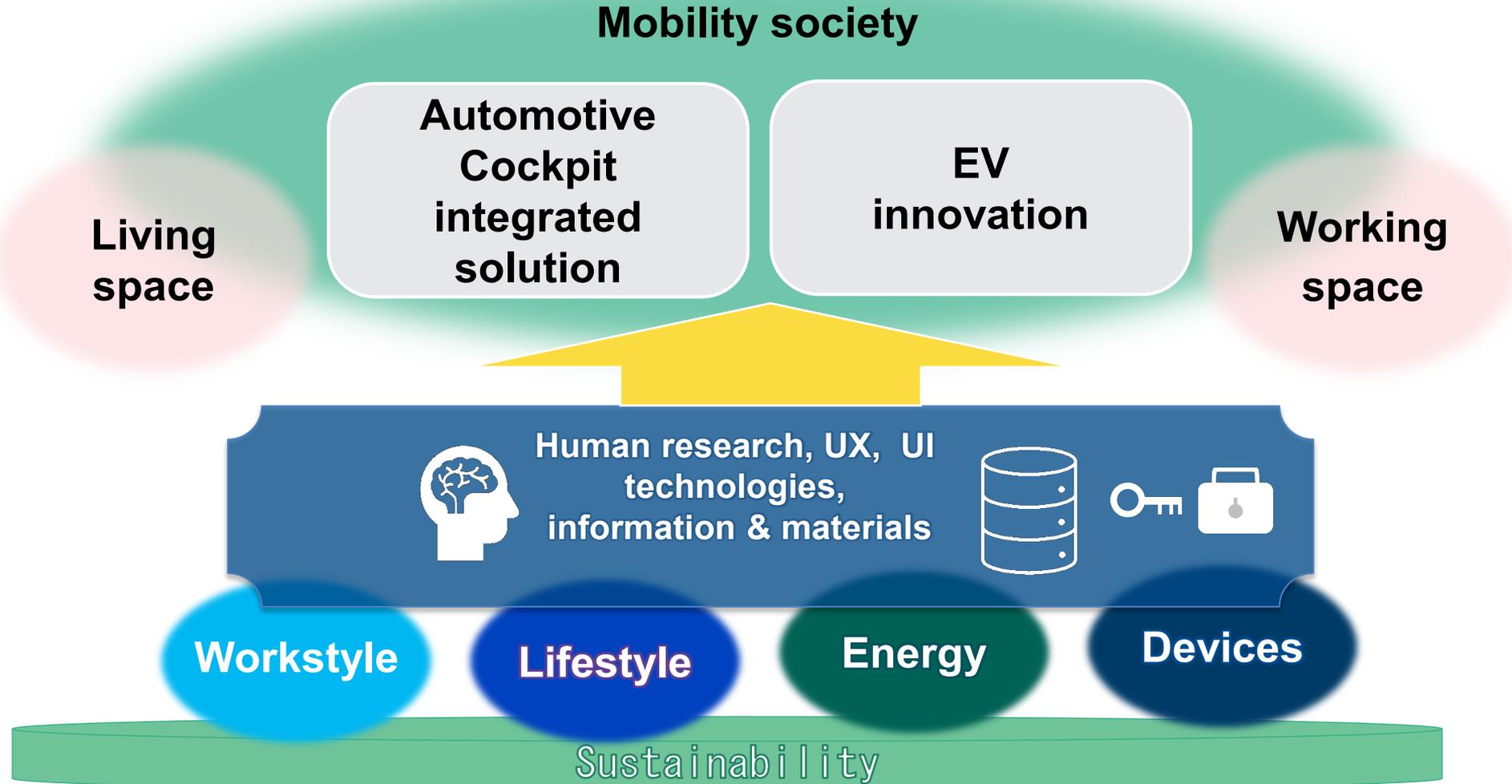


*ECU : Electronic Control Unit



Contributions which Panasonic can Offer to the Sustainable Mobility Society

■ Propose the value in a safe, secure and comfortable mobility space as members of Panasonic Group, which have expertise pertaining to people and their lives.



① Contribute to the Evolution of Cars

■ Contribute to the evolution of cars with Automotive Cockpit integrated solution and EV innovations

Automotive Cockpit integrated solution

● Creating high value UX for advanced cockpits enabled by its systems and devices with a focus on CDCs

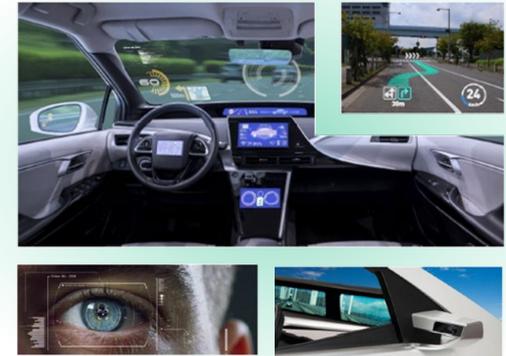
< Our strengths >

- Global No.1 share in DA&IVI
- Advantages of advanced development of in-vehicle OS through collaborative relationships with global IT players, etc.
- Having extensive products and integrated technologies related to CDC

DA: Display Audio, CDC: Cockpit Domain Controller

Target Products ⇒ Automotive Cockpit Systems : IVI, CDC, CDA
Automotive Electronics Systems : HUD(Head-up display), ADAS(Advanced Driving Assistance System), Devices

Image of Automotive Cockpit integrated solution



EV Innovations

● Dedicating to the spread of EVs through power electronics technologies as a technological partner for car OEMs

< Our strengths >

- High-output onboard charging systems lineup, and a variety of devices that offer both reduced weight and power consumption

Target Products ⇒ Automotive Electronics Systems : Onboard chargers, Devices



②③ Provide Values that Stay Close to Every Person

■ Propose new solution ideas that stay close to people

■ Shifting gear from research phase to specification and commercialization

New solution ideas that stay close to people

For People who are not good at driving, and those who are not confident of their perceptual judgment

Driving support solution



Keep clean air by inactivating Viruses, unpleasant odors, pollen, etc.

Hygiene solution



Refresh mind and body of busy modern people in a short time

Power refreshing solution



Protect Information on people and cars from cyber attacks

Vehicle security and monitoring solution



Commercialization Activities

Research/hypothesis construction and testin

User Research & UX Creation

Proposal on new mobile UX



Specification

Solution Matching

Linking between experience value and provided value

Commercialization

Mobility for QOL*

Improvement in QOL through the integration of mobility and lifestyle

Shifting gear for commercialization

*Quality of life

■ Use environmental contribution as the “source of competitiveness” to lead the carbon neutral achievement in the group

CN: Carbon neutral

Scope 1, 2
(PAS sites)

● Aim to achieve net zero* CO₂ emissions from all the main Panasonic Automotive Systems(PAS) sites in FY2023

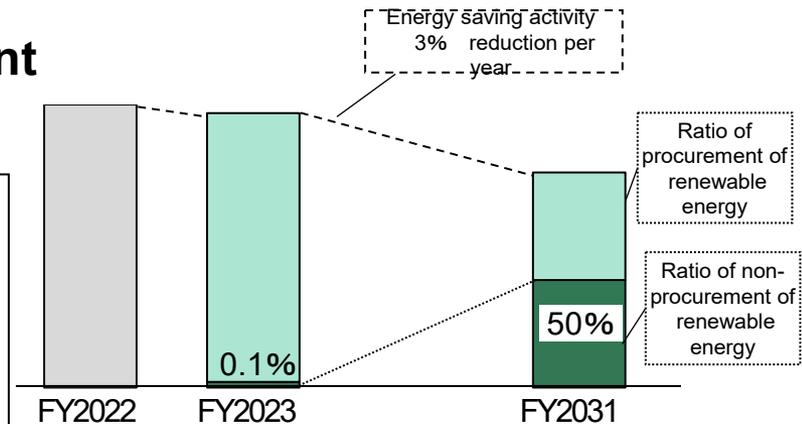
*Including renewable energy procurement(procuring Non-Fossil Fuel Certificates and I-REC Certificates)

● Reduce the ratio of renewable energy procurement

Target

- Energy saving activity 3% reduction per year
- Ratio of non-procurement of renewable energy FY2031 : 50%

Energy Consumption (image)



Energy saving activity example : Optimal control of power equipment linked to production fluctuations

Scope 3
(PAS products),
Contribution to CO₂
reduction for
customers and
society

● Expanding opportunities to reduce CO₂ emissions through manufacturing, technology and services

Contributing to mobility innovation such as vehicle electrification and MaaS with car OEMs

→ Use environmental contribution as the “source of competitiveness”

KGI Target

- Cumulative operating CF (FY2023-2025)
200 billion yen
(FY2022:negative)
- ROIC (FY2025)
8.5%
(FY2022 : 1.6%)

KPI Target

- Operational capabilities (FY2025)
Software development at Automotive Cockpit Systems (vs.FY22)

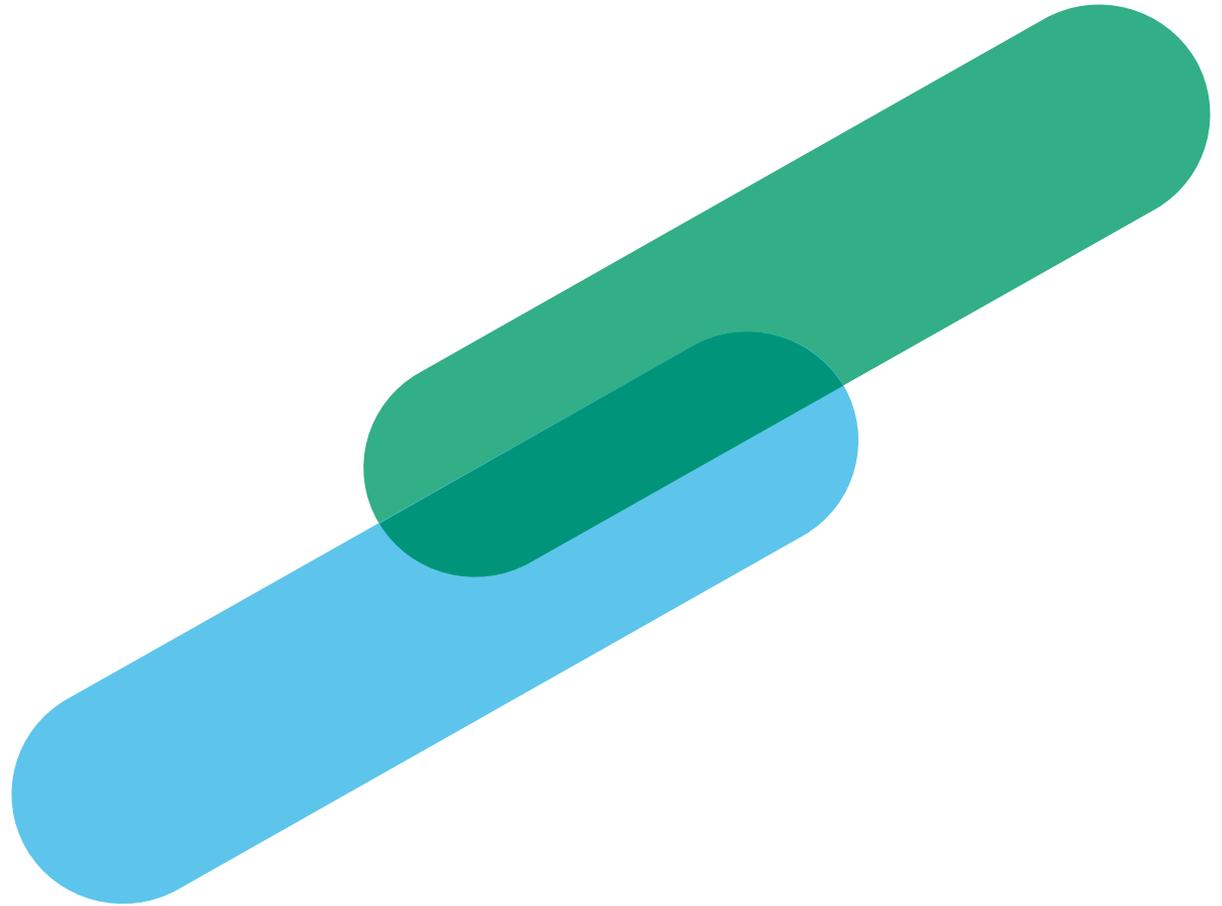
Development productivity
3 ×

Number of architect
1.5 ×
- Environmental contribution
Energy saving activity
3% reduction per year

Ratio of non-procurement of renewable energy (FY2031)
50%



Thank you.
Panasonic Automotive



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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 the spread of the novel coronavirus infections may adversely affect business activities of the Panasonic Group; 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 Group'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 Group highly depends on in BtoB business areas; the possibility of not achieving expected benefits in connection with the transition to a new organizational system in which Panasonic is a holding company; 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; restrictions, costs or legal liability relating to laws and regulations or failures in internal controls; 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 HD's securities reports under the FIEA and any other documents which are disclosed on its website.

(Reference) Details of Businesses with Sales Disclosed

Businesses with sales disclosed

Major products & services

Automotive Cockpit Systems



IVI Cockpit Systems



CDA



Car navigation

■ Infotainment Systems Business Division

- IVI, CDA, car navigation

IVI : In-Vehicle Infotainment
CDA : Connected Display Audio

Automotive Electronics Systems



HUD



Car speakers



Instrument panel switch



Camera Control Units



Back & corner sensors



ADAS ECU



Onboard charging systems

■ HMI Systems Business Division

- HUD, speakers, switch

HMI : Human Machine Interface
HUD : Head-Up Display

■ Automotive Systems Business Division

- Vehicle camera modules, sensors, Onboard charging systems

ADAS : Advanced Driver Assistance System
ECU : Electronic Control Unit



Exterior rearview mirrors



CMS



Sensor and camera cleaning

■ Ficosa International, S.A.

- Exterior rearview mirrors, CMS, Sensor and camera cleaning

CMS : Camera monitoring systems

(Reference)FY2025 Cumulative Operating CF

Cumulative operating CF (FY2023 – FY2025)

