

Automotive Systems Business Strategy

June 9, 2010

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President & CEO

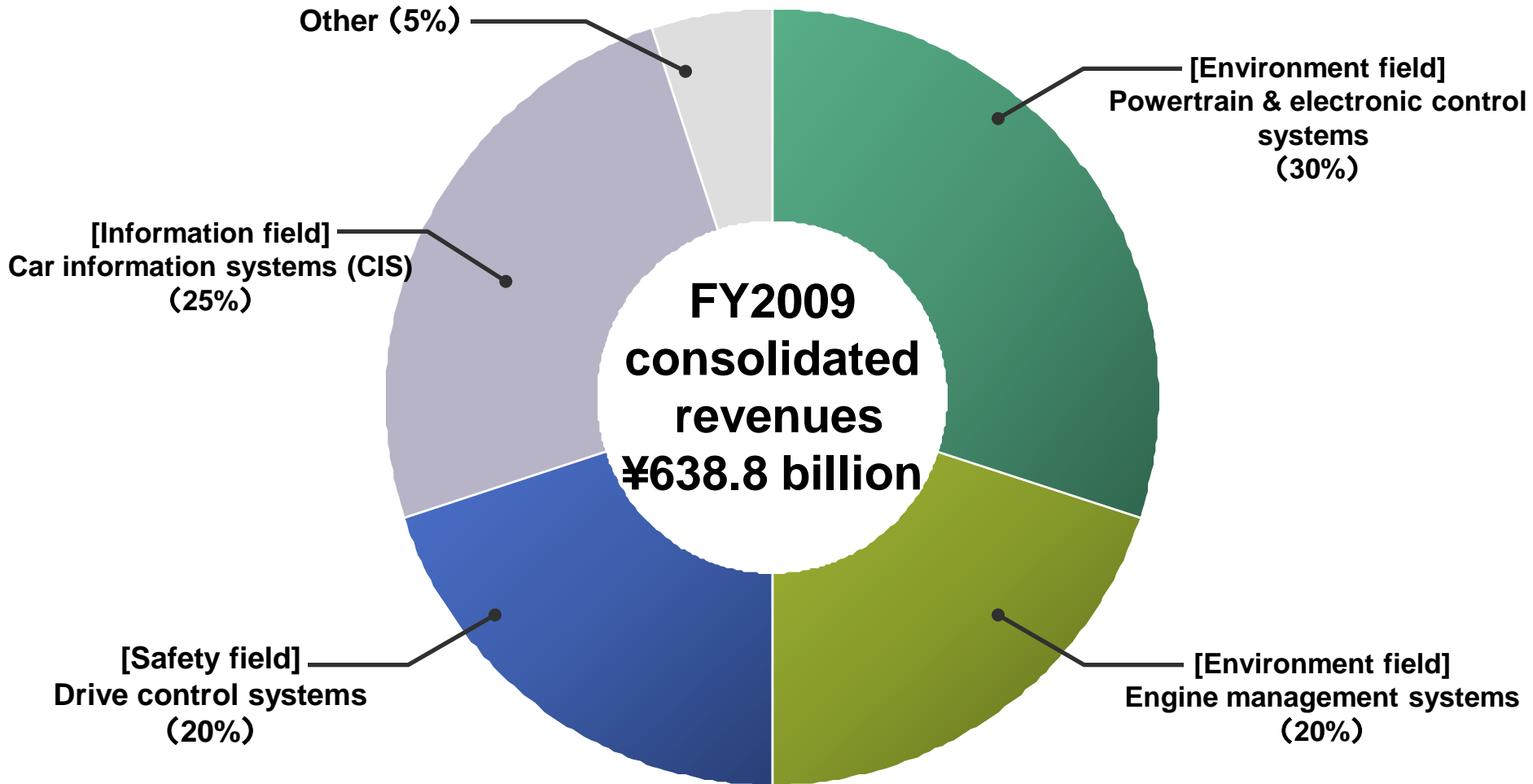
Hitachi Automotive Systems, Ltd.

Automotive Systems Business Strategy

Contents

- 1. Business Overview**
2. Market Environment
3. Strategic Targets
4. Growth Strategies
5. Conclusion

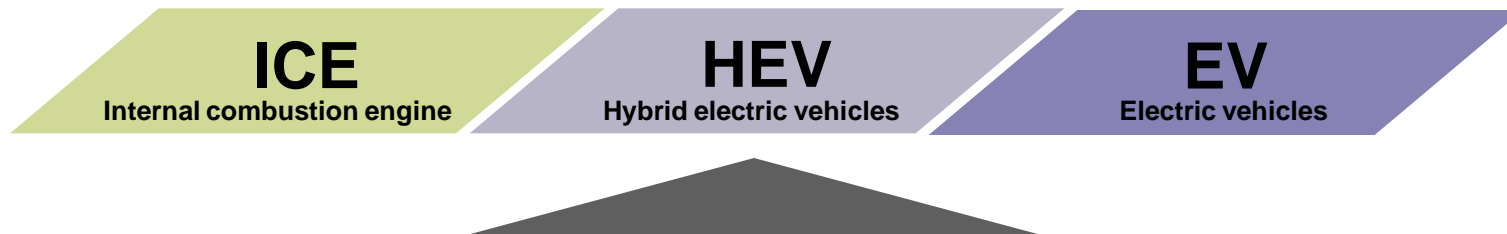
1-1. Business Overview



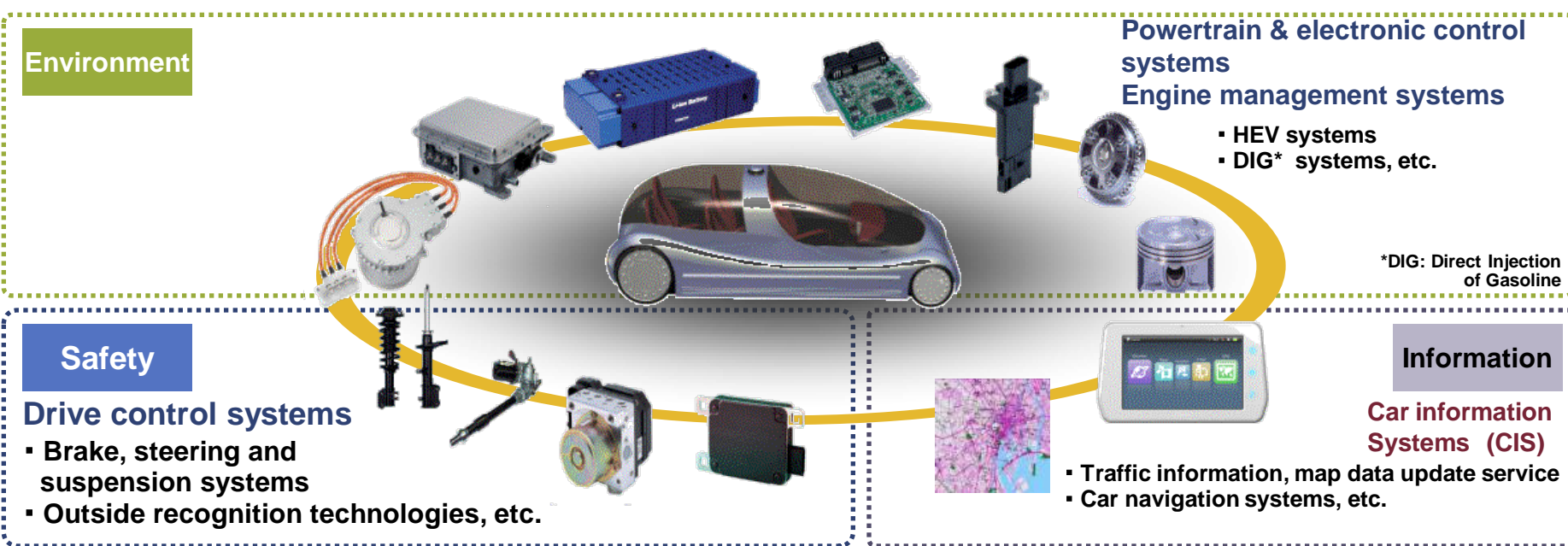
Develop the above four system businesses in our role as the company in the Hitachi Group's automotive-related businesses

1-2. Business Domains

Improve fuel efficiency, lower exhaust emissions, reduce size and weight, electrify, add information systems

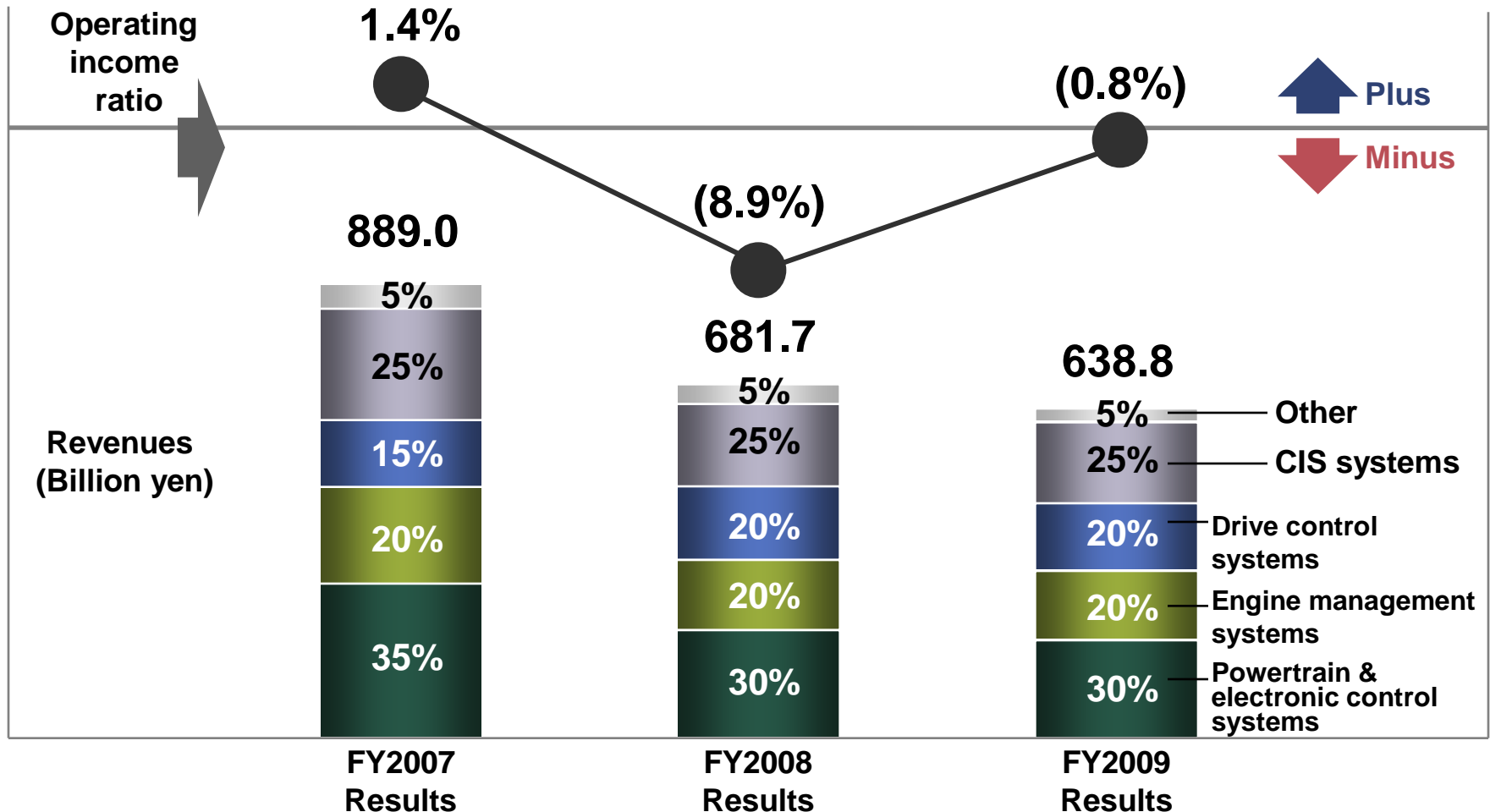


Focus on the environment and safety with electronic control and electric drive systems key technologies



Develop products leveraging Hitachi Group synergies

1-3. Consolidated Revenues and Operating Income Ratio Trends



Results down since 2H FY2008 due to so-called “Lehman Shock” in Sept. 2008
 ⇒ Implemented corporate spin-off and transformed businesses to reform business structures

Selection and Concentration

■ Realign bases, reallocate production

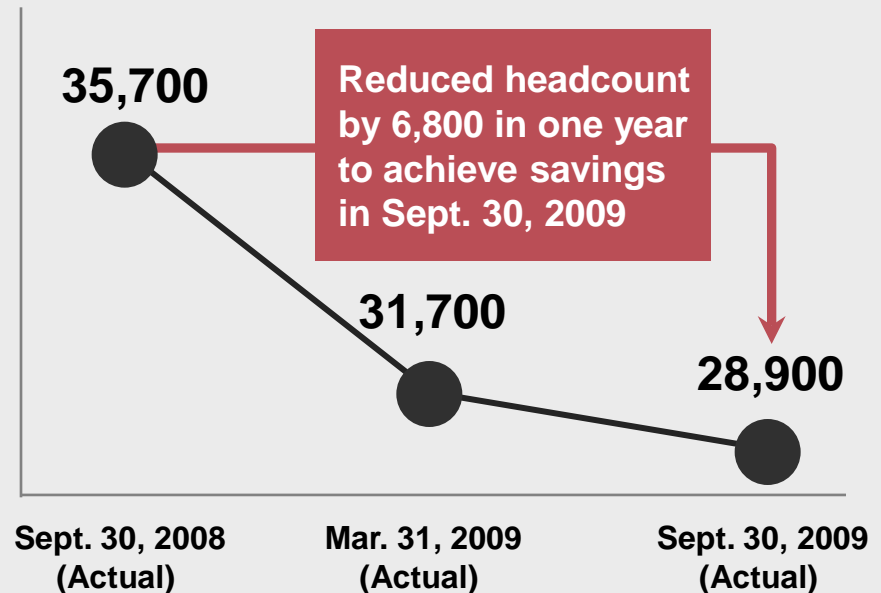
- Closed die-cast base (Nishine, Iwate)
- Withdrew from plating business (Hiratsuka, Kanagawa)
- Integrated power steering business (Akita)
- Withdrew from hydraulic power-steering for passenger cars (Closed North American plant)
- Starters: Integrated in China
- ETB*: Integrated in Thailand
- Suspension: Streamlined production lines
- Optimized organization of Gunma and Sawa works

*ETB Electronic Throttle Body

Cut Fixed Expenses

■ Reduced personnel

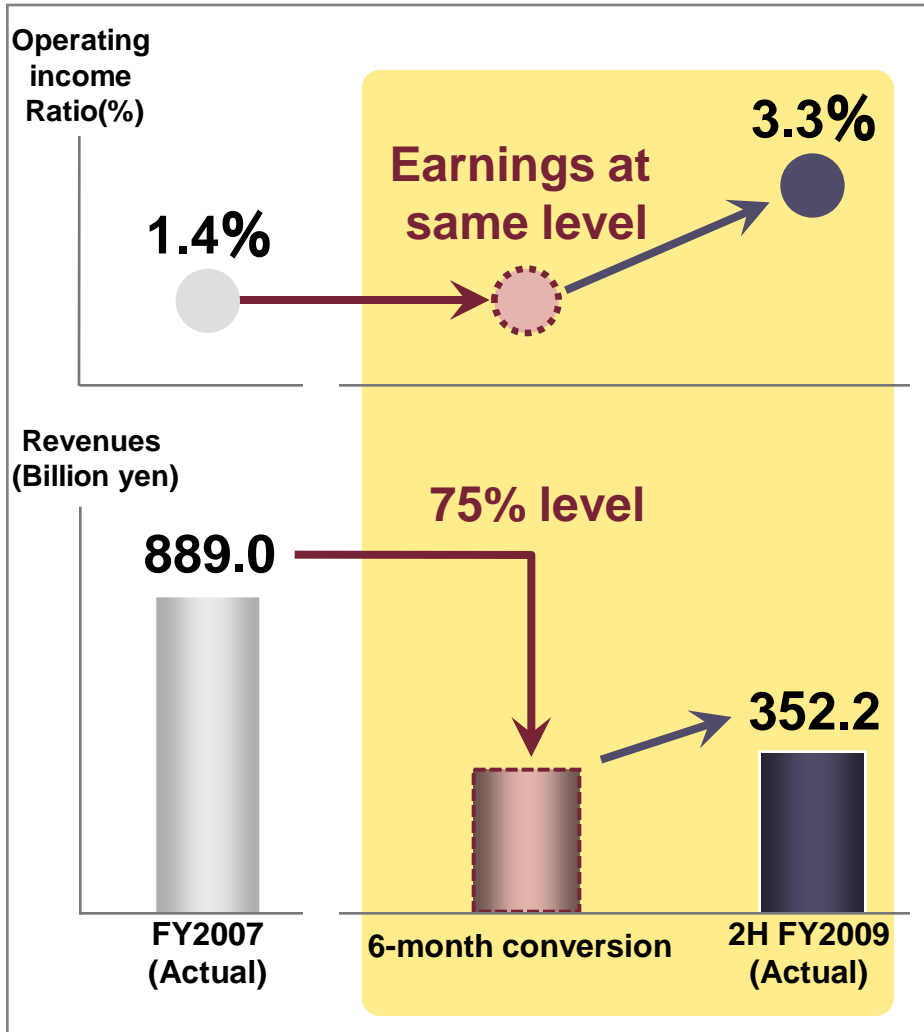
(Total no. of people)



■ Rigorous selection of investment and R&D, etc.

Shift to business framework that is profitable even if sales volume goes down

Reap results by completing structural reforms in FY2009



■ **Shift to business framework that is profitable even if sales volume goes down**

Secure earnings at same level as FY2007 (pre-financial crisis) on revenues of 75% of FY2007 level

■ **2H FY2009 results**
Operating income ratio of 3.3%
Returned to profitability

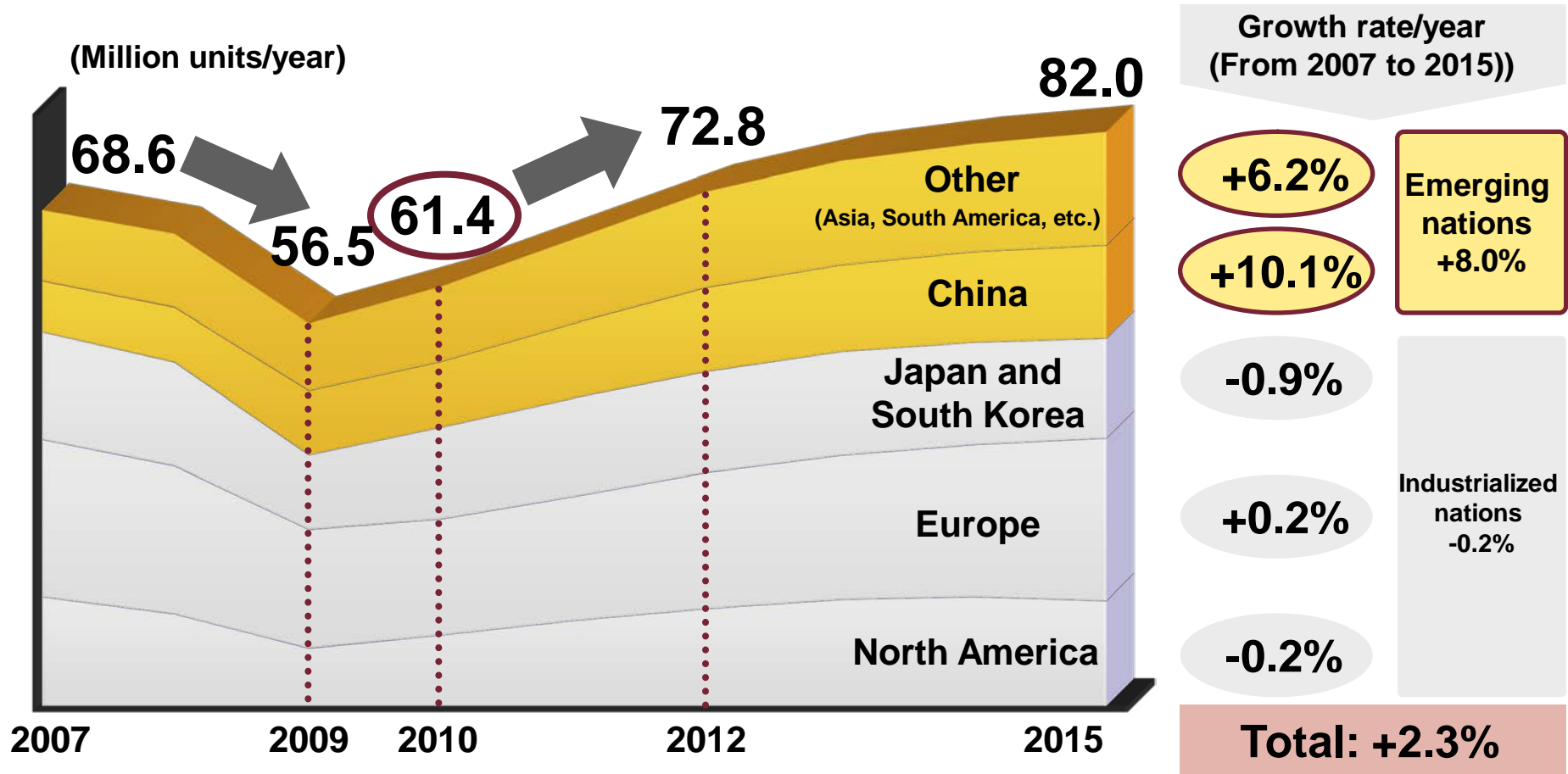
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2-1. Market Environment: Global Automobile Production Forecast

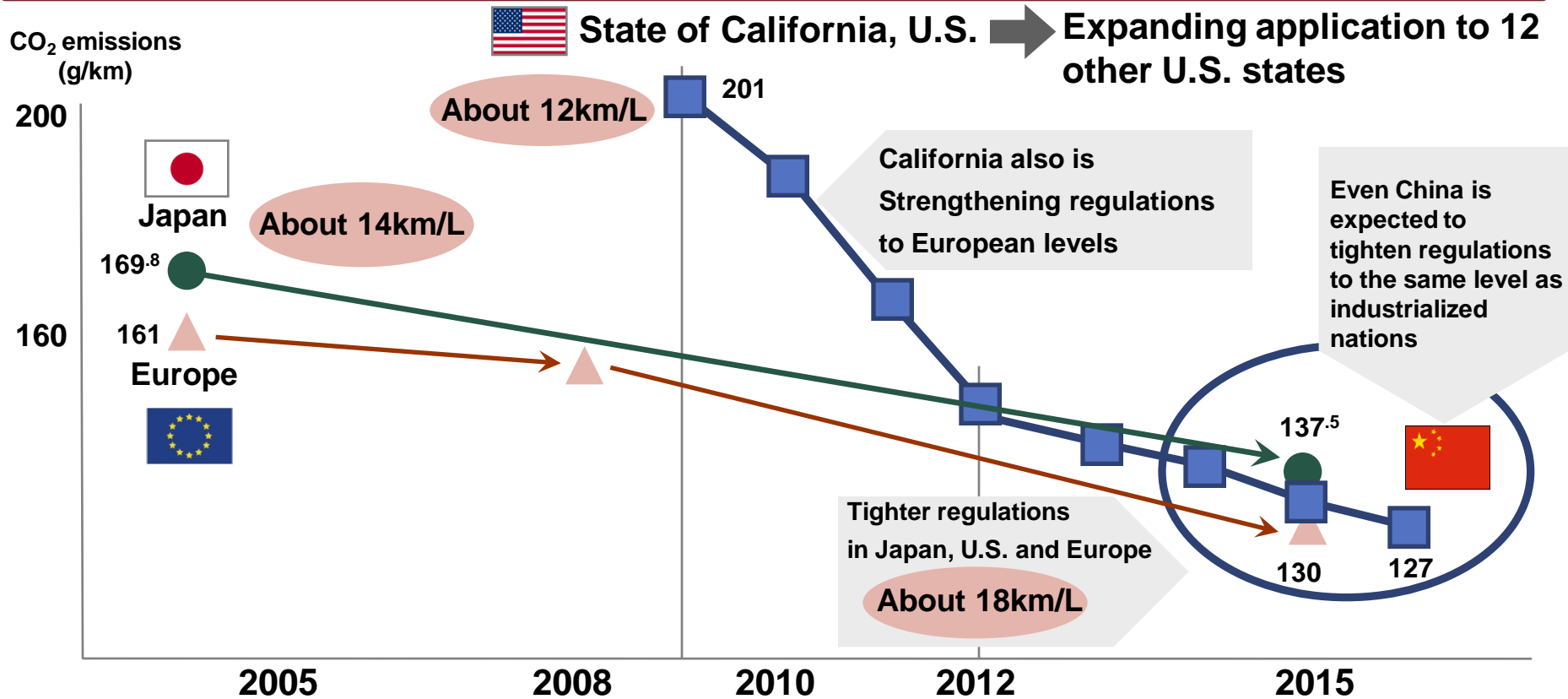
- 2010: 90% of 2007 level
- Growth rate (From 2007 to 2015): +2.3%/year (2015: 82.0 million units/year)
China and other emerging nations are driving growth



(Source: CSM Worldwide)

2-2. Regulatory Trends in Environmental Field (Stronger CO₂ Emissions Regulations)

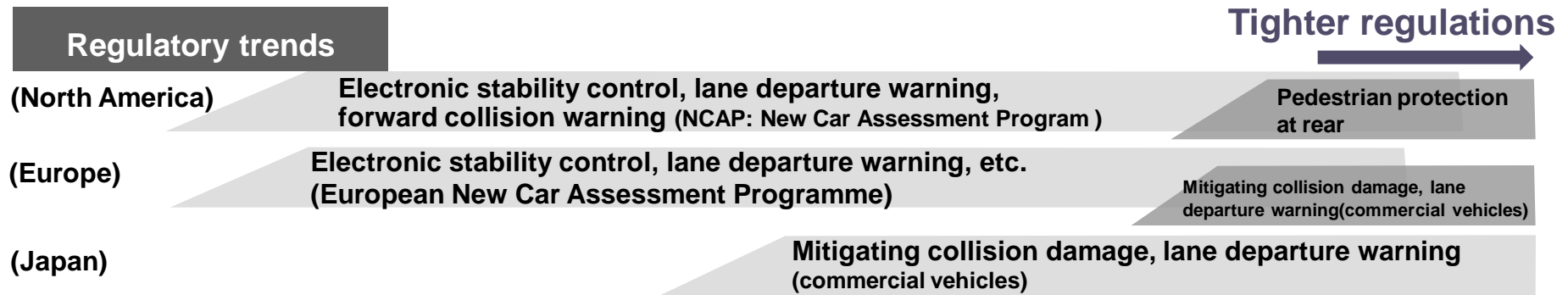
- Various countries are strengthening fuel efficiency (CO₂ emissions) regulations, e.g. CAFE* standards in the U.S. and Law Concerning the Rational Use of Energy in Japan
- Even in the emerging market of China, regulations are expected to be tightened to the same level as industrialized nations in the future



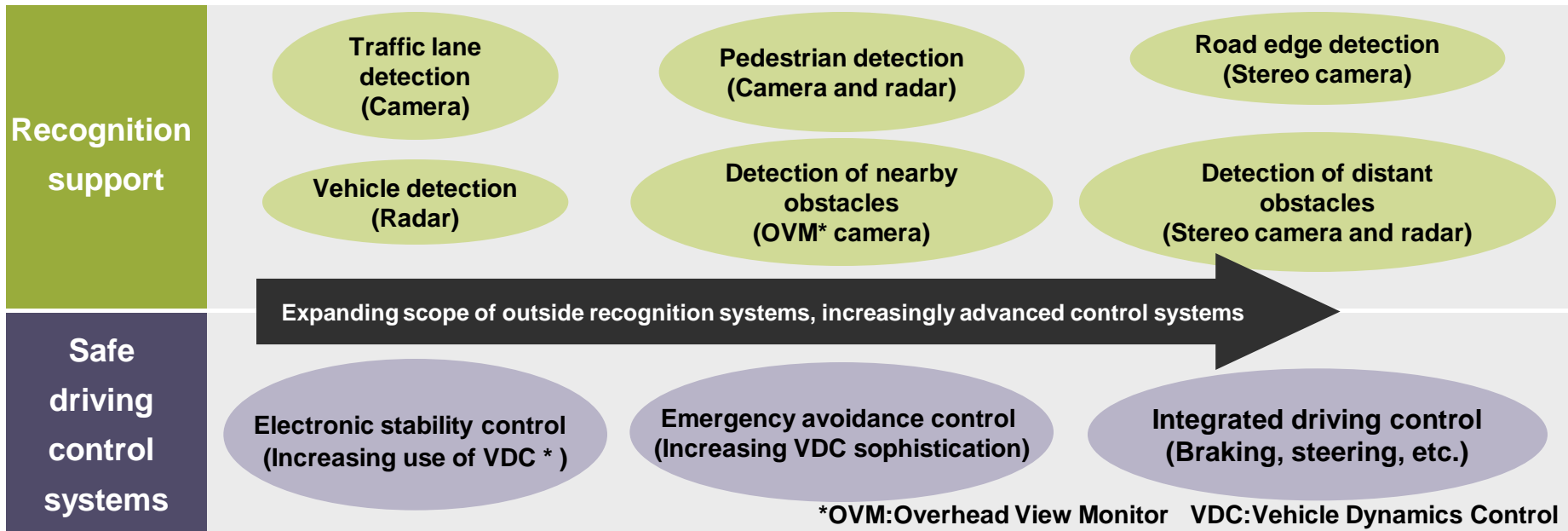
*CAFE: Corporate Average Fuel Efficiency Law Concerning the Rational Use of Energy: Law dealing with the rationalization of energy usage (Source: Nikkei BP materials)

Emissions regulations also being strengthened for nitrogen oxide, hydrocarbons, etc. (Euro 5, etc.)

Shifting focus from collision safety to preventive safety

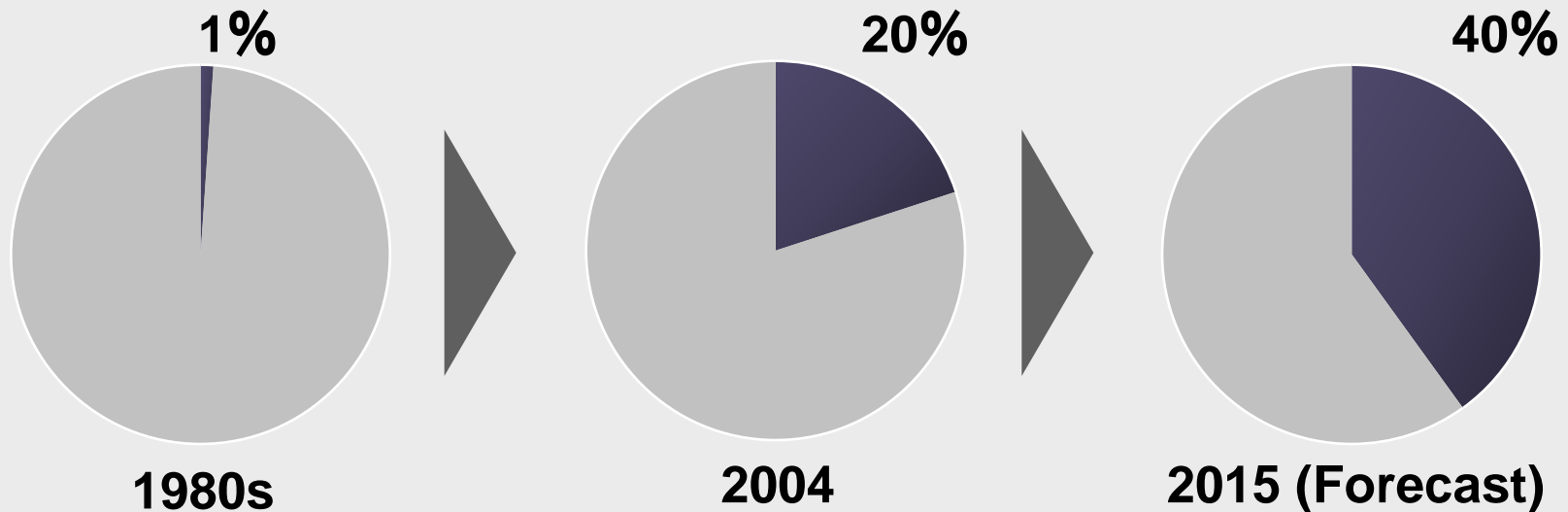




Vehicle system trends ():Hitachi's applicable products and technologies



Use of electronics in automobiles is developing rapidly in response to tougher environmental and safety regulations

Change in share of electronics parts as percentage of total automobile cost



 Mechanical parts
 Electronic parts

Source: Extracted from Nomura Securities Co., Ltd. materials

2-5. Competitive Environment

(Business presence Yes ○、No —)

		Hitachi	Company A	Company B	Company C	Company D	Company E
Environment	HEV motors	○	○	—	—	○	○
	HEV inverters	○	○	○	○	○	○
	Lithium-ion batteries	○	—	—	—	○	○
Safety	Brakes	○	○	—	○	○	○
	Suspensions	○	—	—	—	—	○
	Image recognition cameras	○	○	—	○	○	○
Information	Traffic information services /Solutions, etc.	○	—	—	—	○	—
	Car navigation systems	○	○	—	○	○	○

Hitachi can provide motors, inverters and batteries as an “HEV system”
Hitachi possesses outside recognition, car navigation and solutions technologies

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3-1. Hitachi's Business Environment and Responses

Suppliers must respond globally to commoditization, and use of electronics and electrification systems
→ Respond to increasing use of automotive electronics, strengthen global strategy

Global situation

Stronger environmental regulations around the world

Rising fuel prices due to increasing demand in emerging markets

Yen staying high (perhaps over long term)

Polarization of automobile demand in industrialized nations (Lower prices, and high-quality/more sophistication)

Changing structure of car sales: Sluggish in industrialized nations, increasing in emerging nations

Auto industry

Increasing use of electronics in cars

Electric drive systems in cars (Idling stop, HEVs, EVs)

Suppliers required to cut costs more

Must develop engines matching regional characteristics

(Japanese automakers)
Shifting from exports to local manufacturing

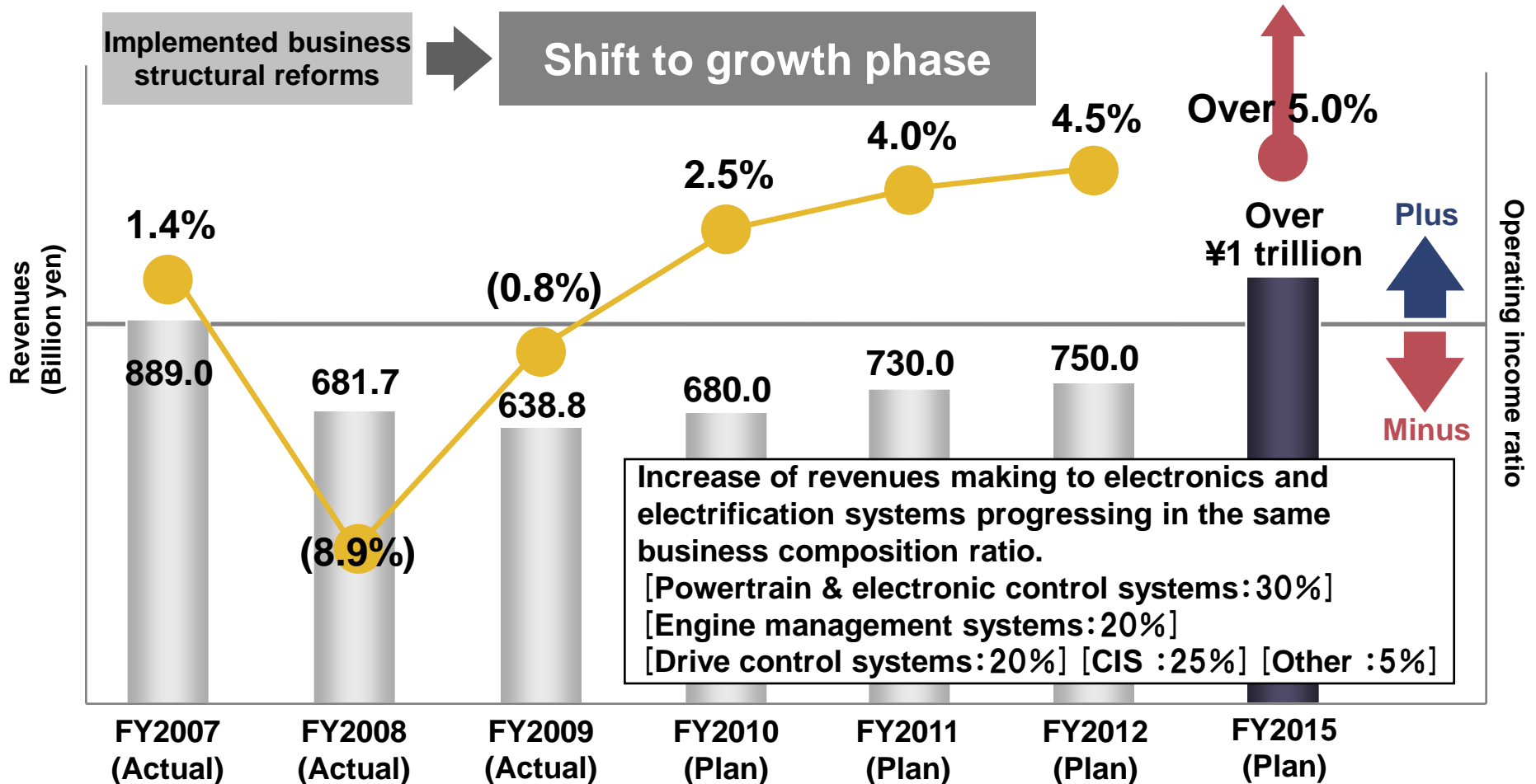
Hitachi's responses

Create new products with electronic control /electric drive systems

Cut costs of commoditized products

Strengthen global support for automakers

3-2. Business Targets up to FY2015

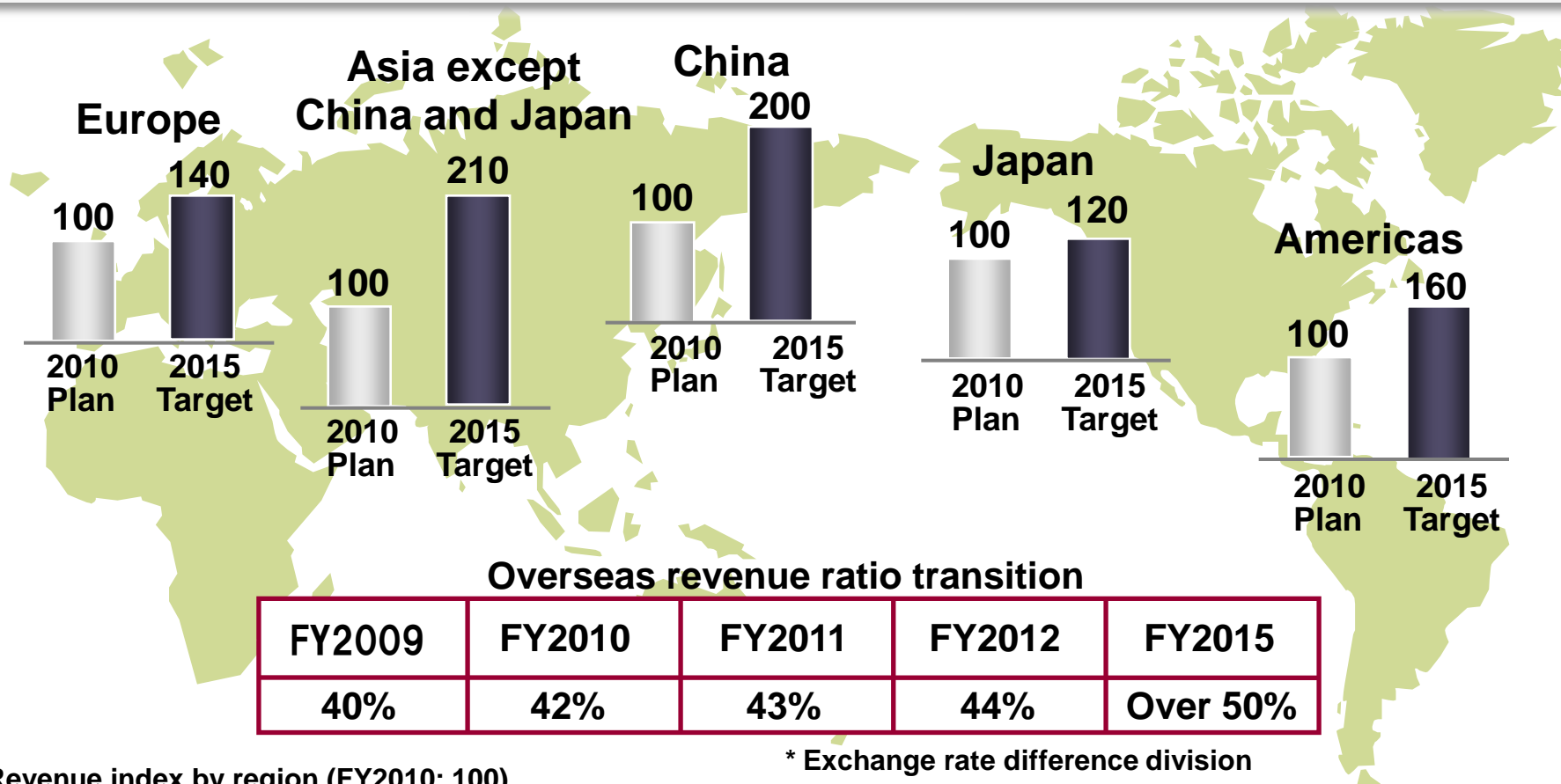


- Achieve full-year profitability in FY2010 (V-shaped recovery) as a result of business structural reforms
- Aim in FY2015 to achieve revenues of over ¥1.0 trillion and an operating income ratio of over 5.0%

3-3. Strengthen Global Business

Improve worldwide presence to become global supplier driving automotive systems market

Strengthen foundation of European business,
double revenues in China and the rest of Asia
In FY2015, achieve overseas revenue ratio of over 50%



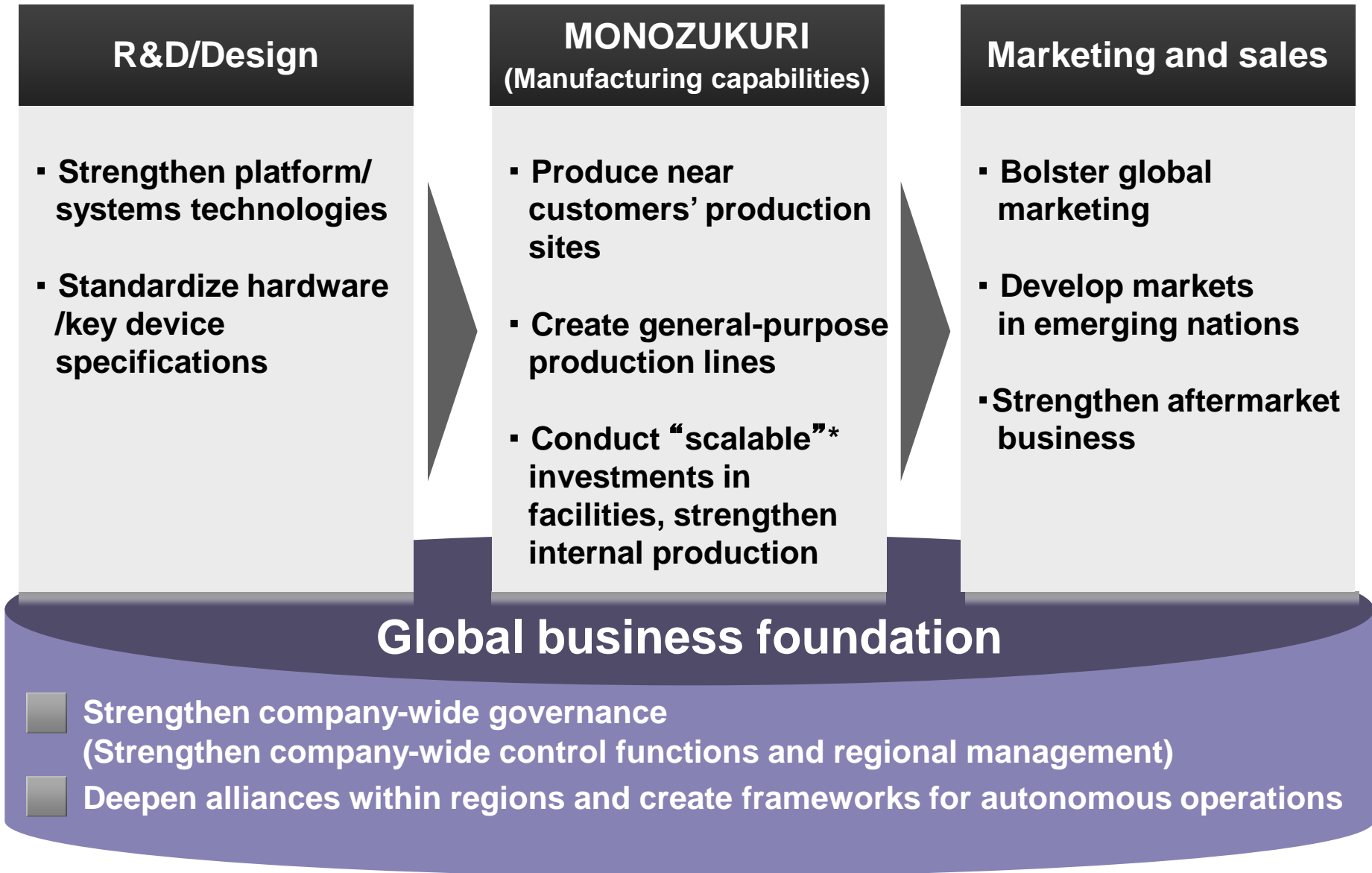
Revenue index by region (FY2010: 100)

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4-1. Basic Strategy by Value Chain



*Corresponding to the change in the scale flexibly

1

Bolster “Multifaceted MONOZUKURI”

- Develop distinctive technologies:
Electronic control/electric drive systems
(Develop next-generation electric drive systems for vehicles)
- Strengthen global R&D framework
- Realign global production, strengthen core technologies

Strengthen R&D
into electronic
control
/electric drive
systems for cars

Innovate
production
technology
globally

2

Strategic cooperation with domestic and overseas manufacturers

- Strengthen joint development activities with automakers, etc.
- Consider forming alliances in emerging nations, etc.

3

Achieve global operations (Accelerate localization)

- Expand regional management frameworks
- Strengthen sourcing of development functions and global procurement capabilities
- Build global TSCM *

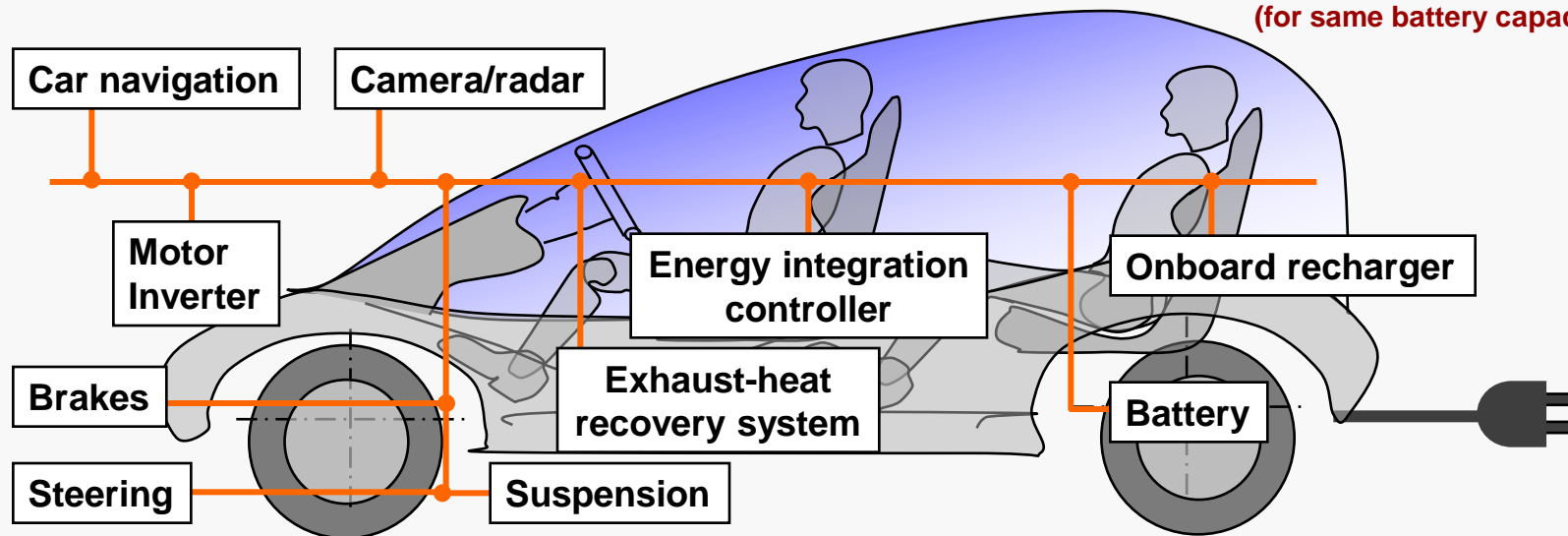
* Total Supply Chain Management

4-3. Strengthen Development and Proposal Capabilities of Systems/Components

Increase business opportunities with electronic control and electric drive systems as distinctive technologies

Components	Conventional-engine vehicle	Electric drive vehicles
Powertrain	Engine transmission	Motors/inverters/batteries
Control	Combustion control/transmission control	Electric/thermal energy control
Braking	Engine negative-pressure booster	Electric actuation booster
Steering	Hydraulic/electromotive systems	Electric drive system

Energy-saving technology with integrated control of electricity/thermal energy
 ⇒ **FY2015 target: To increase driving range over 30% from that of current EV systems**
 (for same battery capacity)

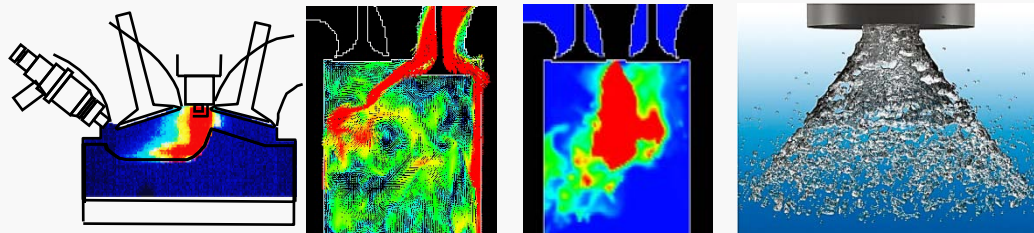


Apply the Hitachi Group's simulation/analysis technologies to automotive systems to create strong unique Hitachi products

High-precision combustion simulation/Electromagnetic field analysis technology

Develop high-precision engine simulation and electromagnetic field analysis of motors based on combustion analysis of gas-turbine generators from power systems business, and on electromagnetic field analysis technology

High-precision simulation



Combustion analysis technology

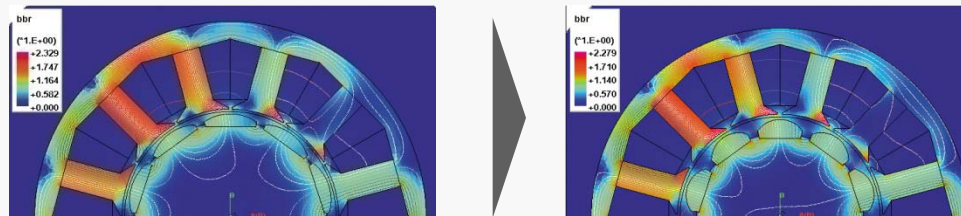
Fuel spray analysis technology

* DIG: Direct Injection of Gasoline



DIG* injector/high-pressure fuel pump

Electromagnetic field analysis technology



Reduction of cogging torque



Motor

Improve reliability through various strict field tests in cold regions and elsewhere on our own test courses

Own test courses (4 locations)

Tokachi test course



A test drive through snow

Sawa test course



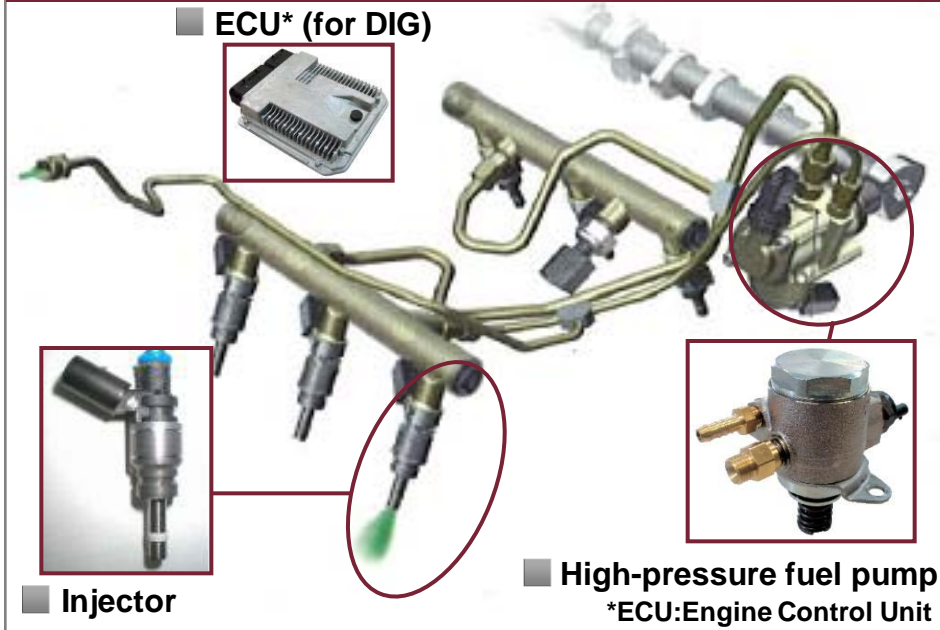
Yamanashi test course



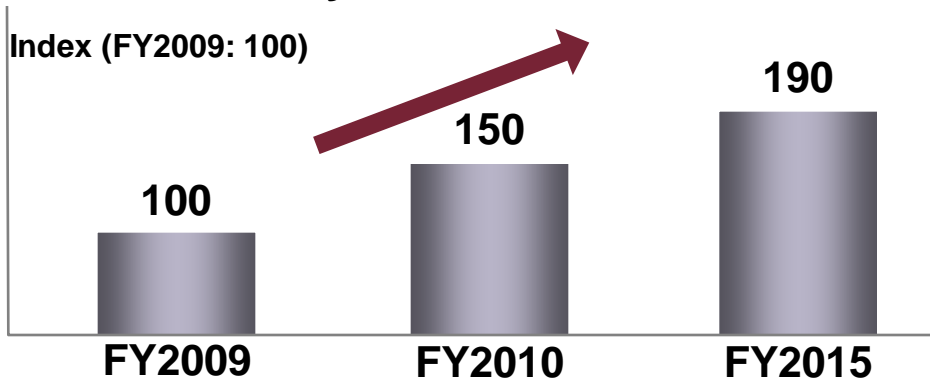
Atsugi test course



DIG system



DIG System Revenue Index



Strengths

- **System proposals**
 - Combustion design
 - Compatible with small engines due to multiple injection, reduced PM*1
- **DIG*2 system: 7% improved fuel efficiency**

*1 PM: Particulate Matter

*2 DIG: Direct Injection of Gasoline

Policy

- **Increase and bolster global sales by improving product competitiveness**

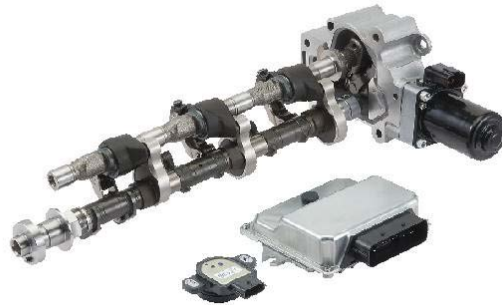
Detailed measures

- **Establish global production framework**
- **Develop next-generation systems and increase sales to global customers**

Variable valve business



VTC*



VEL*

*VTC: Valve Timing Control System
*VEL: Variable Valve Event and Lift

Strengths

- Control and other system proposal
- In-house sintering technology
- VEL: 10% improved fuel efficiency

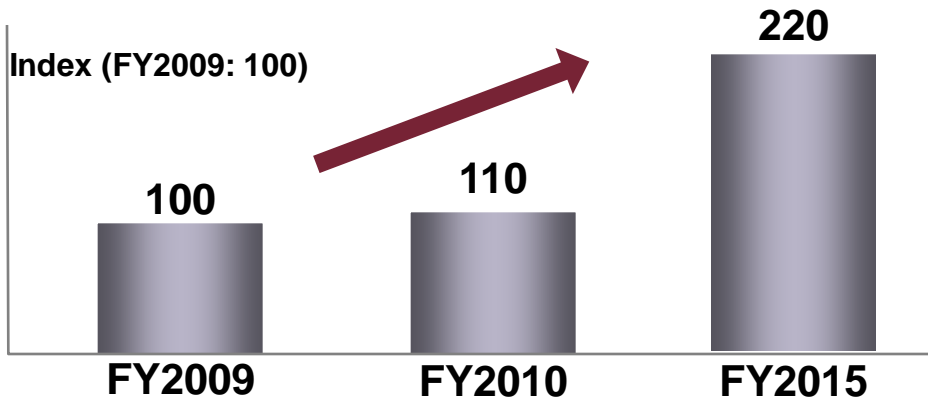
Policy

Capture No. 1 global share
(VTC currently No. 3; own estimate on unit basis)

Detailed measures

- Develop new products
(Mid pin VTC, 4-cylinder VEL, etc.)
- Increase sales globally and expand local production

VTC/VEL Revenue Index





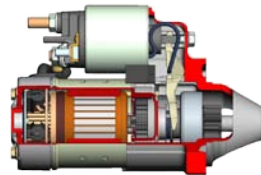
Motors



Lithium-ion batteries



Inverters



Highly durable starters for idling stop system

Strengths

- **Motors:** Small, high-efficiency, high output
Torque density 75Nm/L (Starter core volume ratio)
Optimum design of magnetic circuits with analysis technology
- **Inverters:** Made smaller with high-efficiency cooling system (by 1/3 comparison with our current model)
- **Lithium-ion batteries (For PHEV):** Achieve both high energy (120Wh/kg) and high output (2,400W/kg)
- **Idling stop systems:** highly durable starters

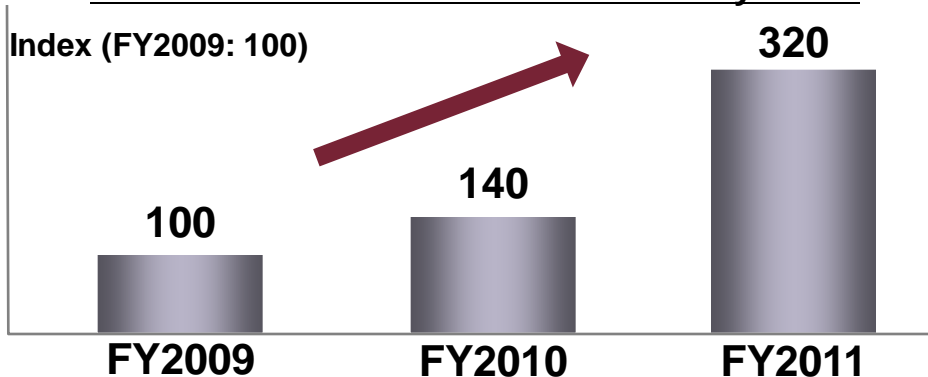
Policy

- Factor in costs by strengthening technological capabilities
- Increase sales by making system proposals

Detailed measures

- Reduce costs and strengthen our own technological capabilities
(Cut materials costs, produce core parts internally, develop standardized products, etc.)

Index of Revenues for Motors/Inverters/Batteries for HEV Systems



4-9. Nurture Strong Businesses (3) – Outside Recognition Technology



EyeSight (ver. 2) from Fuji Heavy Industries Ltd.

“The new EyeSight advanced driver assistance system actively manages various safety functions and further enhances Subaru drivers’ all-round safety driving experience.”

(From Fuji Heavy Industries’ April 22, 2010 press release)



Subaru 2.5i Legacy touring wagon with EyeSight

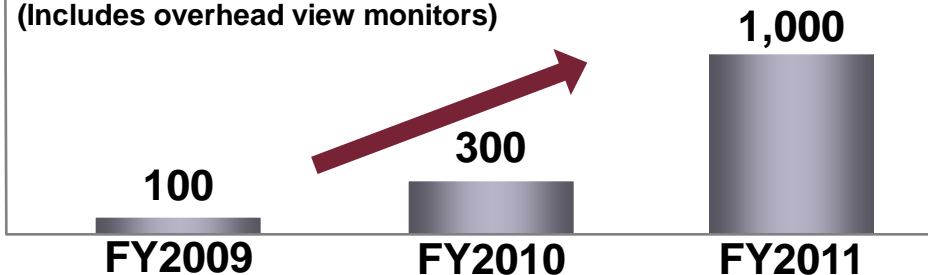
The system simultaneously detects vehicles, objects, pedestrians and the traffic lane

If the system judges there is a danger of a collision with an object, etc., it applies “brake control”

Index of Revenues of Outside Recognition Cameras

Index (FY2009: 100)

(Includes overhead view monitors)



Strengths

- Offers multifunctional, high-performance vehicle control with only advanced-recognition stereo camera technology (High-precision recognition detects not only other vehicles but also motorcycles and pedestrians)

If our EyeSight system were to be introduced into all vehicles on the road, we project that damage caused by major accidents would be cut by 20-30%!

(From Fuji Heavy Industries’ April 22, 2010 press conference)

Policy

- Expand business by further improving product capabilities

Detailed measures

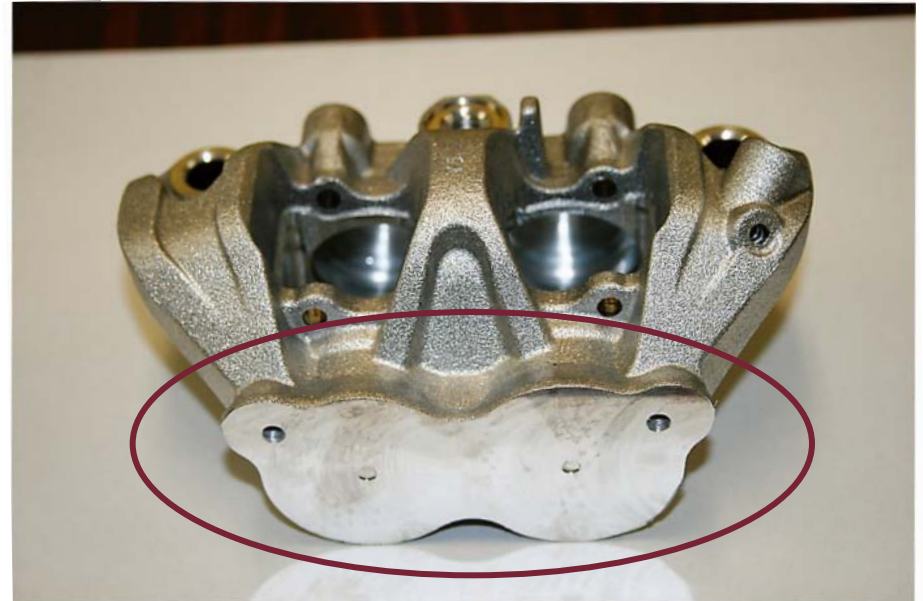
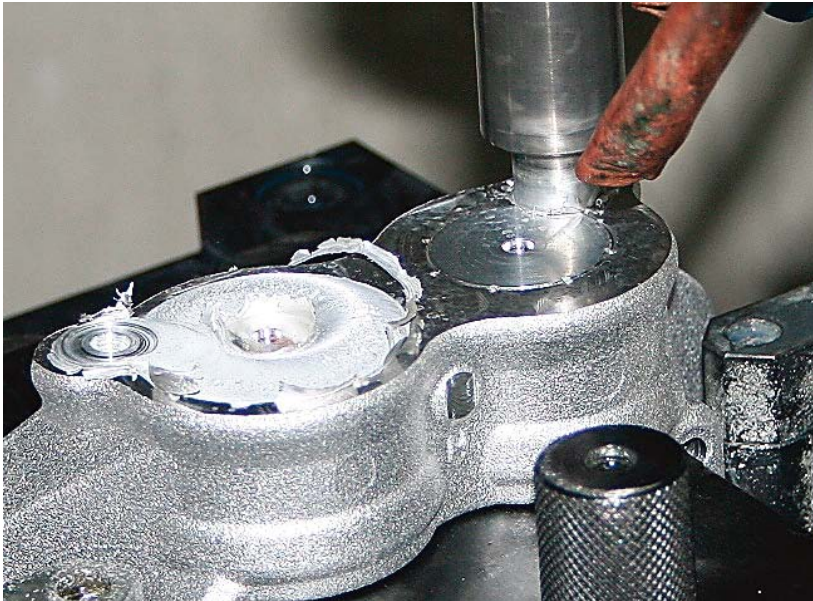
- Develop small, high-performance next-generation stereo cameras with advanced functionality
- Expand application of outside recognition technology to view cameras, car navigation systems, etc.

4-10. Rigorously Strengthen MONOZUKURI (Manufacturing Capabilities) (Lighter Products)

Monoblock calipers for motorcycles

Compared to conventional calipers: 20% lighter and body is 10% more rigid

- Friction Stir Welding is used to make the monoblock calipers
- Used for aluminum pistons



Friction Stir Welding of aluminum alloys is also used
in the manufacture of Hitachi railcars

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Establish a presence as a global supplier

1

Reinforce business foundation

- Improved business framework by completing business structural reforms in FY2009
- Return to profitability in FY2010

2

Shift to growth phase

- Implement global strategy to achieve

Revenues of over ¥1.0 trillion
(Overseas revenue ratio of over 50%)
Operating income ratio of over 5%

FY2015 strategic targets

Cautionary Statement

Certain statements found in this document may constitute “forward-looking statements” as defined in the U.S. Private Securities Litigation Reform Act of 1995. Such “forward-looking statements” reflect management’s current views with respect to certain future events and financial performance and include any statement that does not directly relate to any historical or current fact. Words such as “anticipate,” “believe,” “expect,” “estimate,” “forecast,” “intend,” “plan,” “project” and similar expressions which indicate future events and trends may identify “forward-looking statements.” Such statements are based on currently available information and are subject to various risks and uncertainties that could cause actual results to differ materially from those projected or implied in the “forward-looking statements” and from historical trends. Certain “forward-looking statements” are based upon current assumptions of future events which may not prove to be accurate. Undue reliance should not be placed on “forward-looking statements,” as such statements speak only as of the date of this document.

Factors that could cause actual results to differ materially from those projected or implied in any “forward-looking statement” and from historical trends include, but are not limited to:

- economic conditions, including consumer spending and plant and equipment investments in Hitachi’s major markets, particularly Japan, Asia, the United States and Europe, as well as levels of demand in the major industrial sectors which Hitachi serves, including, without limitation, the information, electronics, automotive, construction and financial sectors;
- exchange rate fluctuations for the yen and other currencies in which Hitachi makes significant sales or in which Hitachi’s assets and liabilities are denominated, particularly against the U.S. dollar and the euro;
- uncertainty as to Hitachi’s ability to access, or access on favorable terms, liquidity or long-term financing;
- uncertainty as to general market price levels for equity securities in Japan, declines in which may require Hitachi to write down equity securities that it holds;
- the potential for significant losses on Hitachi’s investments in equity method affiliates;
- increased commoditization of information technology products and digital media-related products and intensifying price competition for such products, particularly in the Components & Devices and the Digital Media & Consumer Products segments;
- uncertainty as to Hitachi’s ability to continue to develop and market products that incorporate new technology on a timely and cost-effective basis and to achieve market acceptance for such products;
- rapid technological innovation;
- the possibility of cost fluctuations during the lifetime of or cancellation of long-term contracts, for which Hitachi uses the percentage-of-completion method to recognize revenue from sales;
- fluctuations in the price of raw materials including, without limitation, petroleum and other materials, such as copper, steel, aluminum and synthetic resins;
- fluctuations in product demand and industry capacity;
- uncertainty as to Hitachi’s ability to implement measures to reduce the potential negative impact of fluctuations in product demand, exchange rates and/or price of raw materials;
- uncertainty as to Hitachi’s ability to achieve the anticipated benefits of its strategy to strengthen its Social Innovation Business;
- uncertainty as to the success of restructuring efforts to improve management efficiency by divesting or otherwise exiting underperforming businesses and to strengthen competitiveness and other cost reduction measures;
- general socio-economic and political conditions and the regulatory and trade environment of Hitachi’s major markets, particularly Japan, Asia, the United States and Europe, including, without limitation, direct or indirect restrictions by other nations on imports, or differences in commercial and business customs including, without limitation, contract terms and conditions and labor relations;
- uncertainty as to the success of alliances upon which Hitachi depends, some of which Hitachi may not control, with other corporations in the design and development of certain key products;
- uncertainty as to Hitachi’s access to, or ability to protect, certain intellectual property rights, particularly those related to electronics and data processing technologies;
- uncertainty as to the outcome of litigation, regulatory investigations and other legal proceedings of which the Company, its subsidiaries or its equity method affiliates have become or may become parties;
- the possibility of incurring expenses resulting from any defects in products or services of Hitachi;
- the possibility of disruption of Hitachi’s operations in Japan by earthquakes or other natural disasters;
- uncertainty as to Hitachi’s ability to maintain the integrity of its information systems, as well as Hitachi’s ability to protect its confidential information and that of its customers;
- uncertainty as to the accuracy of key assumptions Hitachi uses to value its significant employee benefit related costs; and
- uncertainty as to Hitachi’s ability to attract and retain skilled personnel.

The factors listed above are not all-inclusive and are in addition to other factors contained in Hitachi’s periodic filings with the U.S. Securities and Exchange Commission and in other materials published by Hitachi.

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