

# Working through Value Creation in the Quest for Sustainable Growth

Social issues

Issues to be tackled by society as a whole

Achievement of Sustainable Development Goals (SDGs)

Collaboration among industry, government, and academia is necessary to achieve the 17 goals focusing on resources, climate change, health, etc.

Issues concerning our Group

Climate change and global warming

Carbon dioxide (CO<sub>2</sub>) emissions from the over 1.3 billion automobiles on the road worldwide and thermal power stations are having a serious impact on global warming.

Depletion of natural resources

Increased use of renewable energy is needed as a replacement for limited fossil fuels, such as oil and coal.

Intensifying disasters

Since the supply of electricity is often interrupted during disasters, such as floods or earthquakes, the importance of backup power supplies is growing.

We believe that the GS Yuasa Group's products and business activities will contribute to the solution of various social issues, including achievement of the Sustainable Development Goals (SDGs), and that, by bringing value to society, the Group will enhance its own corporate value as well. Furthermore, in order to avoid the risk of damage to corporate value, we believe it is important to minimize any negative impact of business activities on society. On the basis of our corporate philosophy, by continuing our pursuit of cutting-edge and trailblazing technologies, the GS Yuasa Group aims to create value that contributes to the realization of a sustainable society. Through such efforts, we believe that we can achieve our Group's own sustainable growth as well.

Operational processes

Philosophy

## Innovation and Growth

We are committed to people, society, and the global environment through innovation and growth of our employees and business entities.

Underpinnings of value creation

**Others**  
Lithium-ion batteries for manned research submersibles, satellites, rockets

**Industrial Batteries and Power Supplies**  
Batteries for industrial applications, power supply systems, lighting equipment, membrane systems

**Automotive Lithium-ion Batteries**  
Lithium-ion batteries for electric vehicles (EVs), plug-in hybrid electric vehicles (PHEVs), hybrid electric vehicles (HEVs)

**Automotive Batteries (Japan/Overseas)**  
Automotive and motorcycle lead-acid batteries

**Business activities**

**Materiality (key CSR issues) advanced by GS Yuasa**

**Environmental issue initiatives**

- Environmental protection promotion
- Environmentally considered product development and popularization

**Social issue initiatives**

- CSR procurement promotion
- Respect for character
- Human resource development guidelines
- Improvements in working environment/ industrial health and safety
- High-quality product supply

**Strengthened governance**

- Scrupulous CSR/compliance
- Intellectual property protection
- Systematic control of confidential information

Opportunities  
P.15

Risks  
P.17

Mid-Term Management Plan

Growth driven by solving social issues

- Maximization of profits
- Maximization of returns to shareholders through efficient use of assets
- Innovation supported by enhanced technological capabilities
- Growth for employees, maintaining and expansion of employment
- Building stable supply systems through strengthened bonds with suppliers

Long-term vision

### An energy device company committed to the constant creation of new value

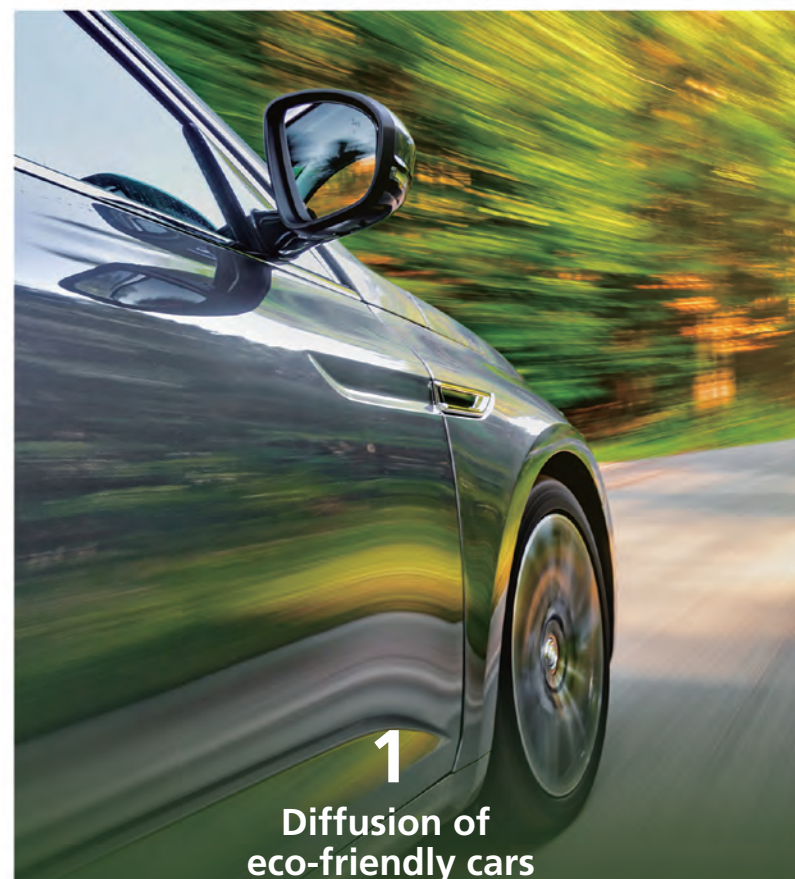
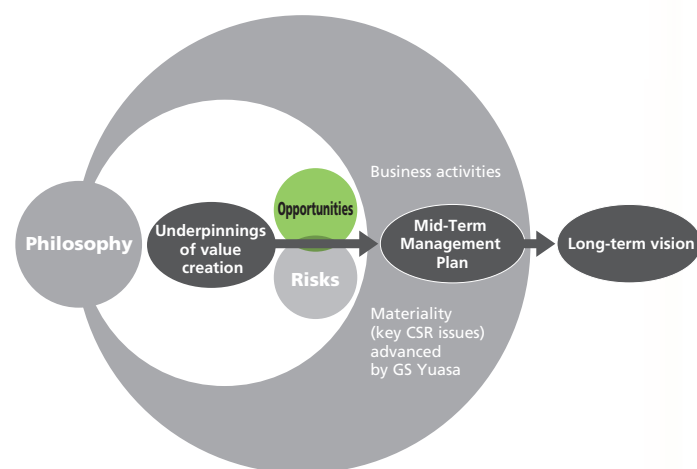




# Opportunities

In addition to the US-China trade problem and the economic slowdown in Europe, the sudden outbreak of the novel coronavirus pandemic in 2020 has had a major impact. As a result, the world economy is becoming increasingly opaque. At the same time, however, the risks of climate change, such as the advance of global warming and the increase in the number of large-scale natural disasters, remain as serious as ever, so the trends toward the curbing of CO<sub>2</sub> emissions and the dispersion and stabilization of electricity supply sources look likely to continue in the medium and long term.

Our Group will continue to grow in a sustained manner by accurately grasping social, market, and technological trends, displaying technological development capabilities in our strong fields, and maintaining our competitiveness.



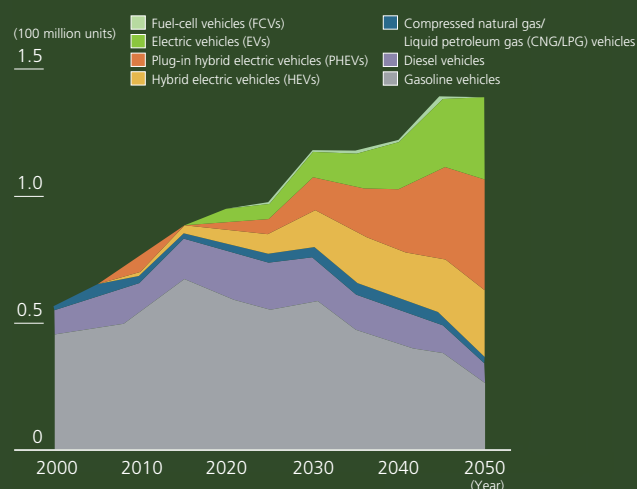
## 1 Diffusion of eco-friendly cars

Amid the tightening of environmental controls on the more than 1.3 billion vehicles on the road worldwide, the diffusion of HEVs and EVs is progressing. And even in the case of conventional gasoline vehicles, the standardization of fuel-saving start-stop functions is advancing.

Our Group's products are playing an important role in this shift to eco-friendly vehicles and the electrification of automobiles.



### Global market forecast for automobiles



Source: International Energy Agency, *Energy Technology Perspectives 2017*



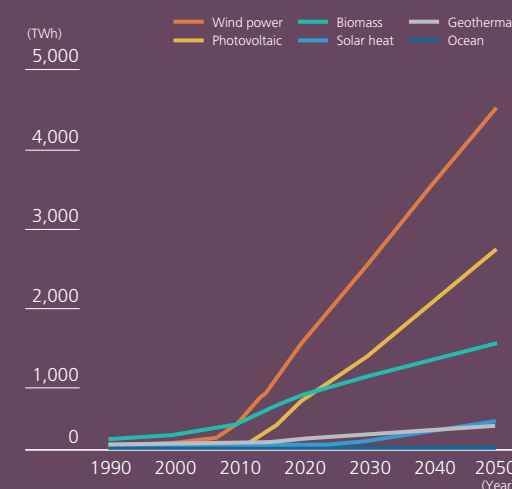
## 2 Expanding renewable energy

Since worldwide energy demand is increasing as a result of burgeoning populations and economic growth, it is necessary to expand the use of renewable energy to replace fossil fuels.

Our Group's products, which are essential for the effective use of energy from photovoltaic or wind power generation, are attracting much attention.



### Renewable energy worldwide\* (Amount generated)



\*Excluding hydroelectric power generation.

Source: The Institute of Energy Economics, Japan, *IEEJ Outlook 2019*



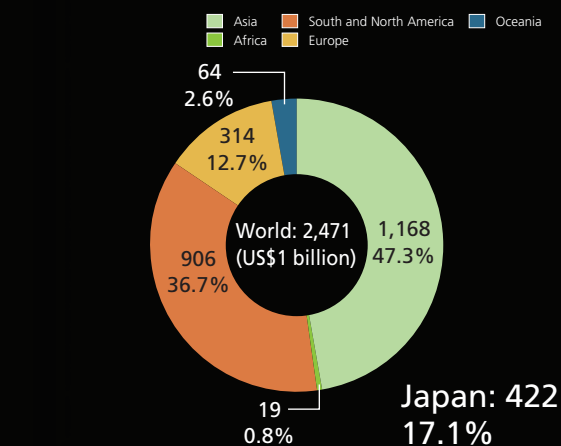
## 3 Strengthening electric power and information infrastructure

If the supply of electricity were cut off, the activities of modern society would instantly come to a halt. Therefore, batteries and power-source devices for backup power supplies in times of disaster are becoming increasingly important.

Our Group's products are safeguarding society's basic infrastructure and contributing to business continuity in office buildings and plants in the event of a large natural disaster.



### Regional distribution of the world's disaster costs



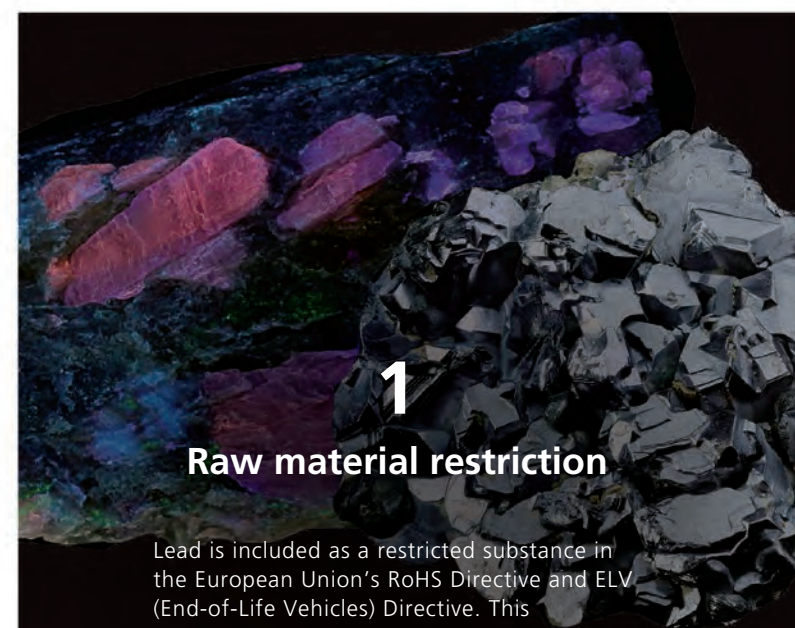
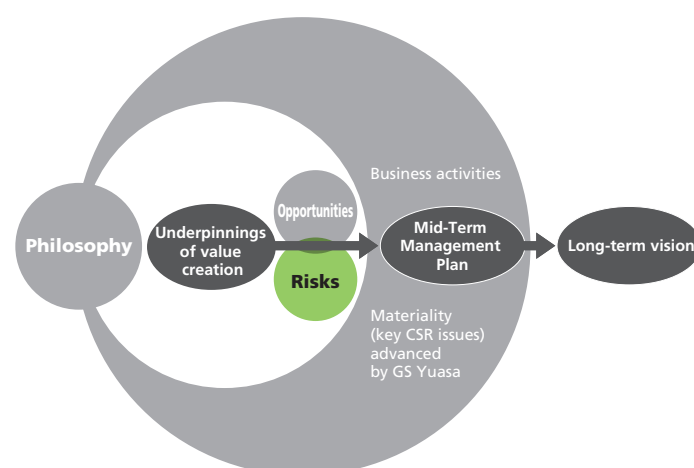
\*Total for 1984–2013. Compiled by the Asian Disaster Reduction Center based on materials of the Centre for Research on the Epidemiology of Disasters (CRED).  
Source: Cabinet Office, *White Paper on Disaster Management in Japan 2015*, Table 3



# Risks

Our Group, which supplies products to the growth industries of automobiles and social infrastructure, is constantly vying with competition in the global market and technological development. It is also important for us to keep a close eye on supply-demand balances and price fluctuations caused by the properties of raw materials.

Identifying the various risks associated with our business and their degree of importance, we will continue to conduct sound and positive management from a medium- to long-term perspective.

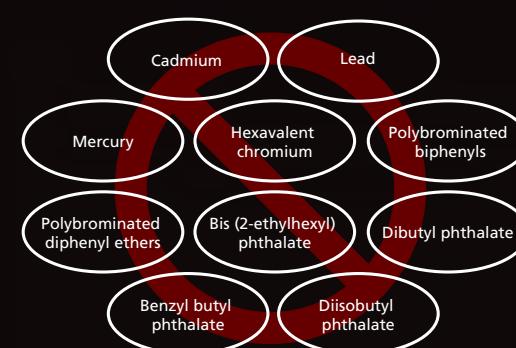


## 1 Raw material restriction

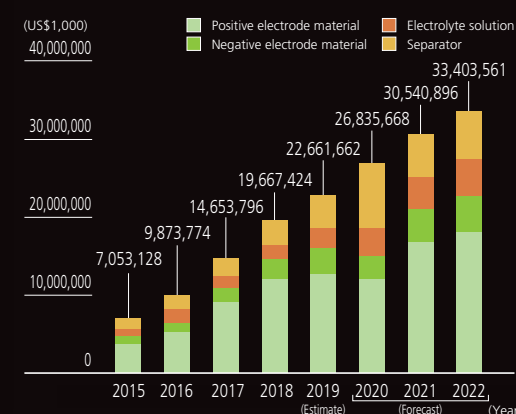
Lead is included as a restricted substance in the European Union's RoHS Directive and ELV (End-of-Life Vehicles) Directive. This tightening of restrictions could have repercussions worldwide. Furthermore, there is concern that the increase of eco-compliant vehicles will lead to a rise in the price and supply shortages of such rare metals as lithium, nickel, cobalt, and manganese.

Since lead and rare metals are the main raw materials for our products, these trends could exert an impact on our Group's production activities.

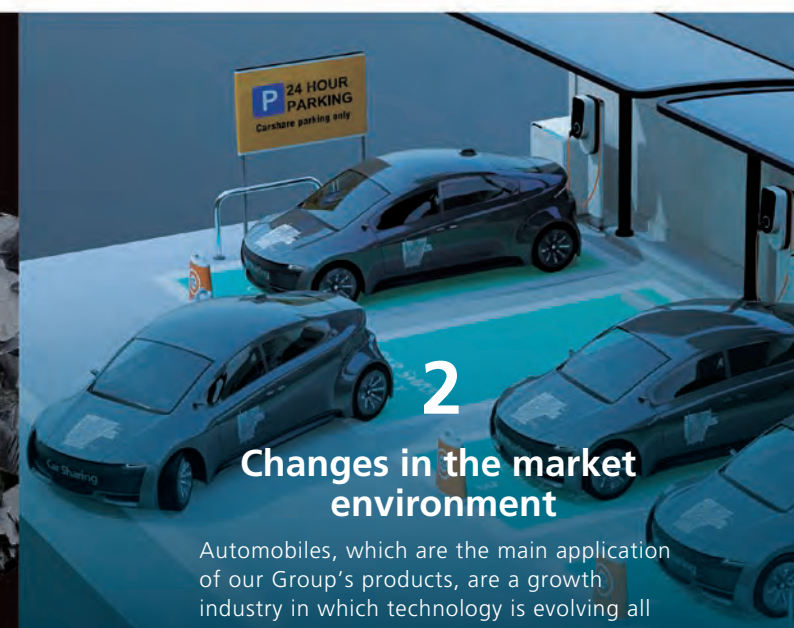
### RoHS directive: 10 restricted substances



### Four principal components of lithium-ion batteries Global market scale trends and forecasts



Source: Website of Yano Research Institute Ltd.  
(press release of December 2, 2019)

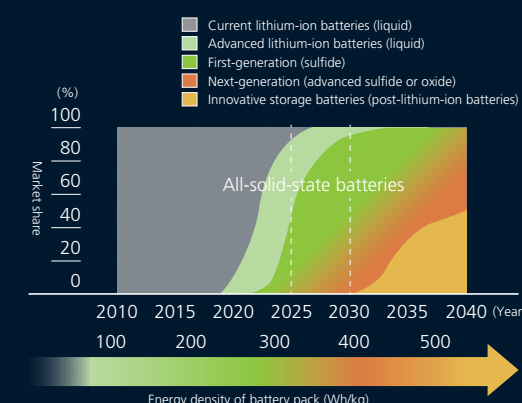


## 2 Changes in the market environment

Automobiles, which are the main application of our Group's products, are a growth industry in which technology is evolving all the time.

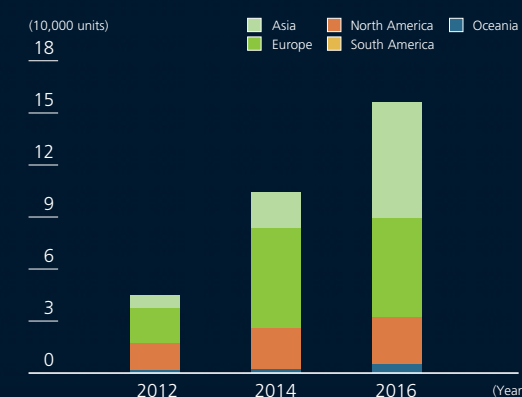
It is necessary for us to implement strategies that accurately grasp changes in the market, such as the rapid rise of eco-friendly vehicles as a result of the tightening of exhaust-gas emissions; the emergence of alternative, post-lithium-ion batteries; the drift of young people away from cars; and the diffusion of car-sharing services.

### Assumed technological shift of EV batteries



Source: New Energy and Industrial Technology Development Organization (NEDO), news release of June 15, 2018

### Number of car-sharing vehicles in five regions worldwide



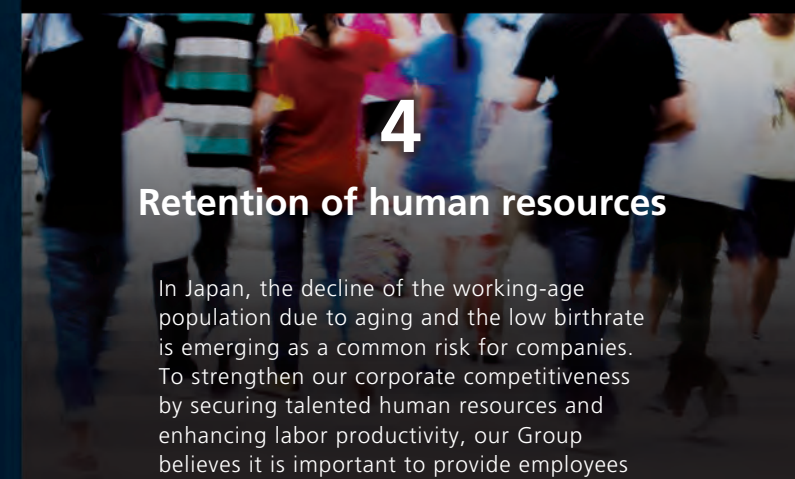
Source: Daiwa Institute of Research Group, Policy Analysis Report, "Rapidly Expanding Car Sharing and the Future Mobility Society (1)"



## 3 Supply-chain fluctuations

Lead-acid batteries and automotive lithium-ion batteries, which are the mainstays of our Group, are both products that are easily impacted by the market conditions of raw material suppliers and customers. The cobalt required for lithium-ion batteries is a conflict mineral and also entails the risk of child labor.

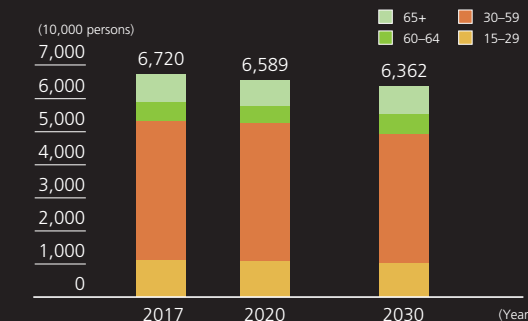
Proper supply-chain management and the ensuring of stable supply and demand are essential.



## 4 Retention of human resources

In Japan, the decline of the working-age population due to aging and the low birthrate is emerging as a common risk for companies. To strengthen our corporate competitiveness by securing talented human resources and enhancing labor productivity, our Group believes it is important to provide employees with workplace environments in which everyone can fully display their abilities, enjoy good physical and mental health, and continue to work zealously, regardless of gender, age, and so on.

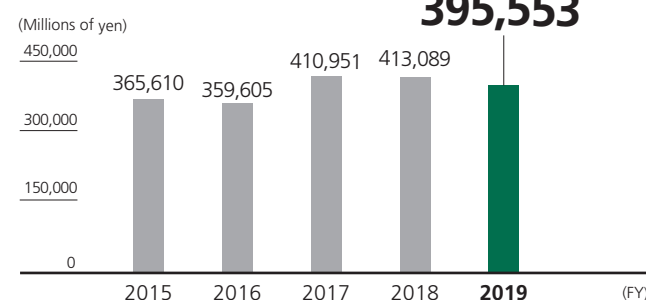
### Trends in working-age population



Source: Ministry of Health, Labour and Welfare, Annual Health, Labour and Welfare Report 2018

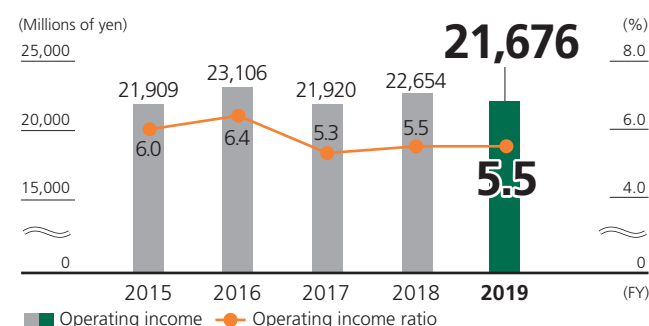
# Financial Highlights

## Net sales



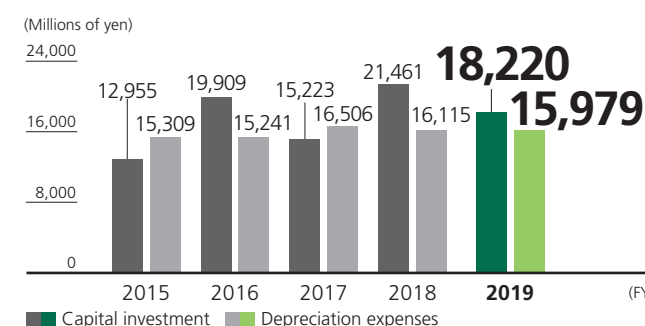
Net sales were down year-on-year due primarily to lower sales prices in conjunction with lower prices for lead in the automotive battery business as well as effects from yen appreciation.

## Operating income/Operating income ratio



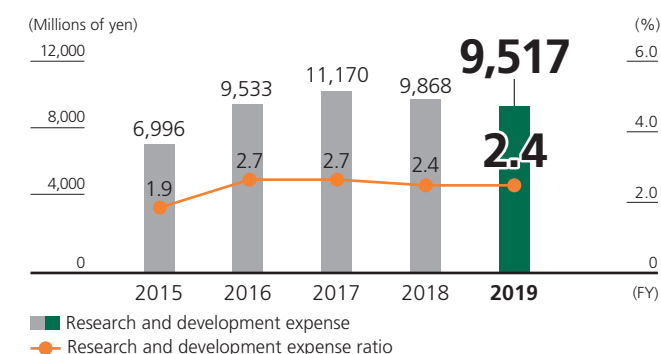
Despite strong sales of stationary lead-acid batteries and power supplies and effects from lower raw materials costs, operating income was down year-on-year due to a deterioration of profitability in the automotive lithium-ion battery business.

## Capital investment/Depreciation expenses



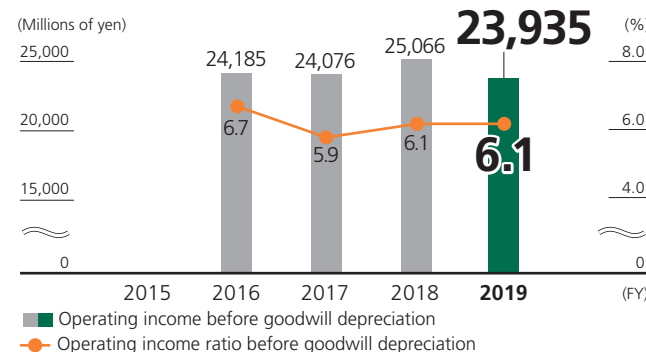
Strategic capital investments were made as planned in Tianjin, China, and Hungary, but capital investment was down year-on-year based on investigation and implementation of investment needed in light of market conditions and other factors.

## Research and development expense/Research and development expense ratio



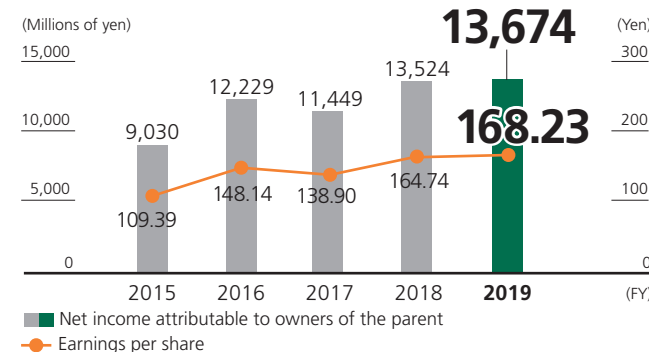
R&D expense was down year-on-year, but we are actively conducting R&D with a focus on the lithium-ion battery business. The ratio of R&D expense to sales was flat from the previous year.

## Operating income before goodwill depreciation/Operating income ratio before goodwill depreciation



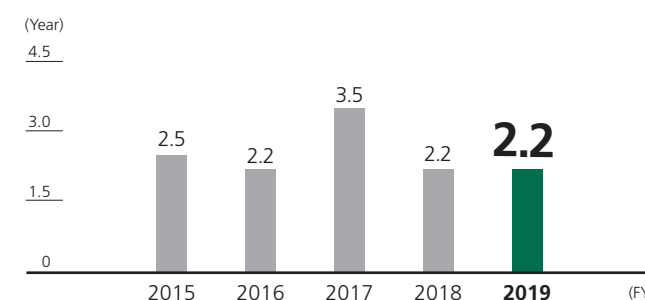
Operating income before goodwill depreciation was down year-on-year because of the decline in operating income.

## Net income attributable to owners of the parent/Earnings per share



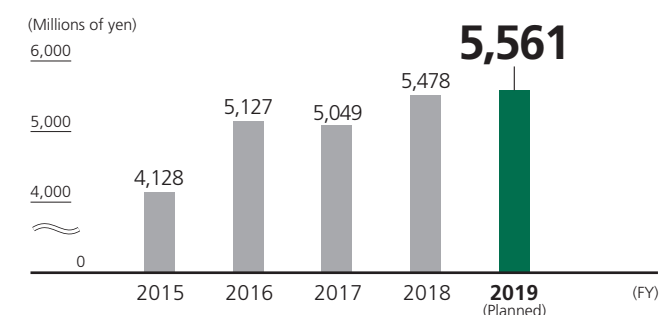
Net income attributable to owners of the parent reached a record high as a result of changes in income taxes and adjustments and other factors.

## Interest-bearing debt to cash flow ratio



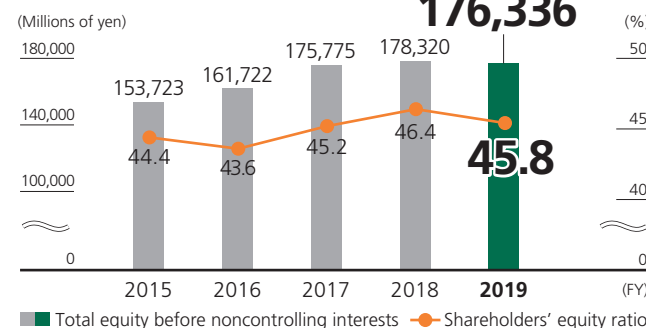
Despite an increase in cash flows from operating activities, interest-bearing debt increased with the application of IFRS 16 (Leases) to overseas subsidiaries starting in fiscal 2019, and the ratio of interest-bearing debt to cash flows remained at the same level as in the previous year.

## Total payout



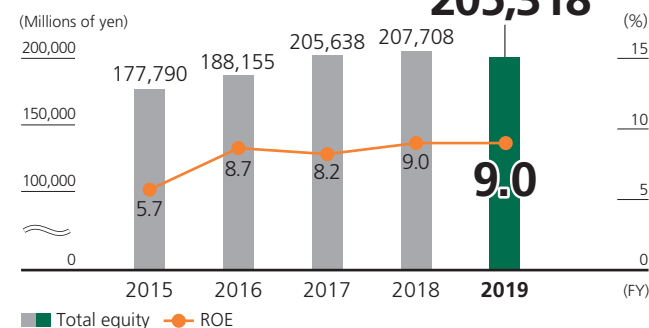
We plan to acquire a total of 1.5 billion yen in treasury shares as a part of shareholder returns. We plan to increase the total amount of shareholder returns compared to the previous year with the effects of the share buyback taken into account.

## Total equity before noncontrolling interests/Shareholders' equity ratio



Total equity before noncontrolling interests was down year-on-year despite an increase in net income attributable to owners of the parent. The main factors were payment of dividends, acquisition of treasury shares, a decrease in foreign currency translation adjustments due to changes in exchange rates, and a decline in the valuation difference of other securities in conjunction with lower share prices.

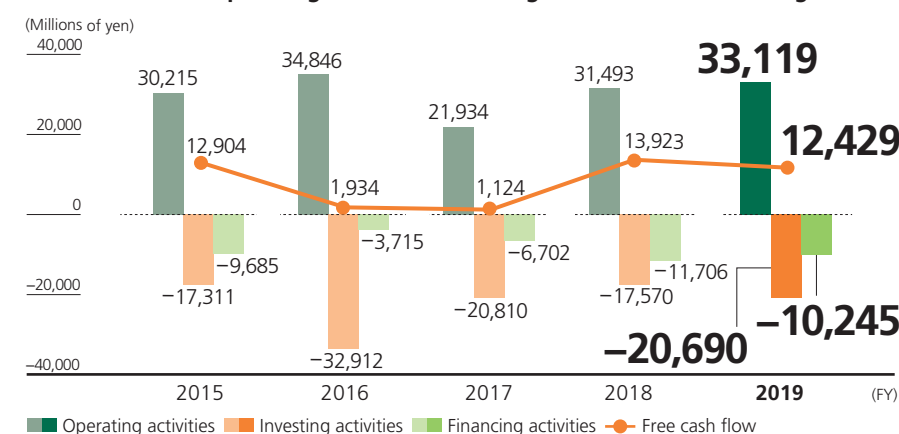
## Total equity/ROE\*



As a result of efficient operation shareholders' equity and an increase in net income attributable to owners of the parent, ROE, an indicator of management efficiency, was flat from the previous year.

\* Since FY2016, ROE has been calculated based on income before goodwill depreciation.

## Cash flows from operating activities, investing activities, and financing activities



## Cash Flows from Operating Activities

Income taxes and other taxes were paid, but as a result of profit before income taxes, depreciation and amortization, receipt of dividends, receipt of advance payments in conjunction with orders for large projects in the industrial battery and power supply business, and other factors, cash flows from operating activities were up ¥1,626 million from the previous year.

## Cash Flows from Investing Activities

Cash flows used in investing activities were down ¥3,120 million from the previous year, primarily as a result of purchase of property, plant, and equipment.

## Cash Flows from Financing Activities

Borrowings were repaid, treasury shares were acquired, dividends were received, and other factors affected cash flows, and cash flows used in financing activities were down ¥1,461 million from the previous year.



# Non-Financial Highlights

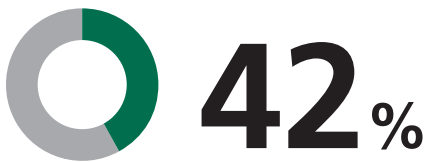
Notes. Scope of application Japan: Subsidiaries in Japan; Overseas: Subsidiaries and affiliates subject to the equity method in countries other than Japan; Global: Japan and overseas, however, not all subject companies are included in some instances.

Percentage of environmentally considered products in total sales of all products (global)



In fiscal 2019, the target was achieved by increasing sales of vehicles with start-stop systems (ISS: idling stop systems), which achieve low fuel consumption, as well as products for power generation systems that utilize renewable energy and other products.

Ratio of recycled lead used as lead raw materials in lead-acid batteries (global)



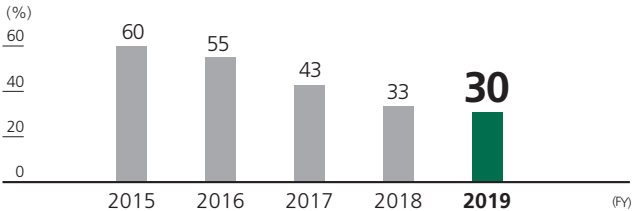
The rate of use of recycled lead by overseas Group companies increased in fiscal 2019, and the amount of recycled lead used in lead-acid batteries greatly exceeded the initial plan.

Number of serious product incidents (global)



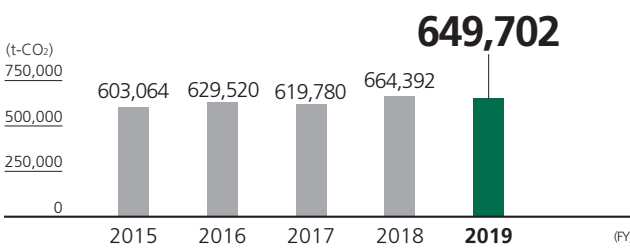
As a result of priority implementation of product safety education for employees, the number of serious products accidents was zero in fiscal 2019. We will continuously improve product safety management.

Quality loss rate index for domestic business (compared to fiscal 2014) (Japan)



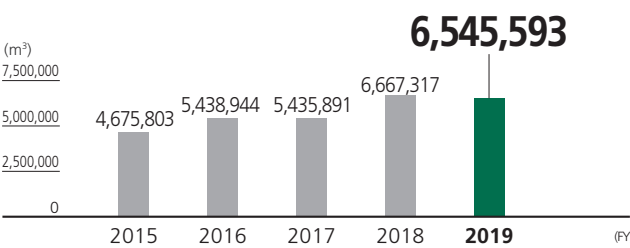
The trend has been downward compared to fiscal 2014. Going forward, we will undertake further quality improvement measures and seek to achieve our quality loss targets.  
\* The index is shown with the fiscal 2014 quality loss index set at 100.  
Quality loss rate: The loss ratio occurring during product manufacturing and sales.)

CO2 emissions in production\* (global)



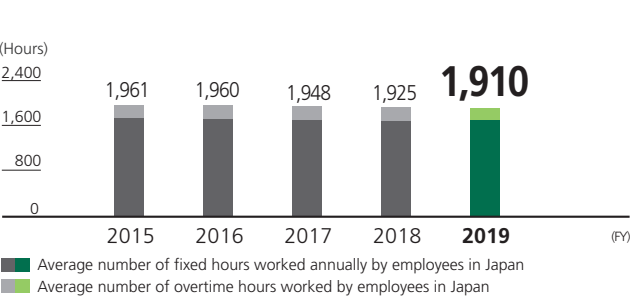
The CO2 emissions reduction target (at least 2% from fiscal 2018) was achieved by implementing energy-saving measures in production processes.  
\* We have been expanding the scope of application since fiscal 2018.

Water consumption in production\* (global)



In the future, we will continuously undertake activities to promote the reuse of water so that we can achieve our water use reduction targets.  
\* We have been expanding the scope of application since fiscal 2018.

Annual working hours\* (Japan)



The Group is taking measures to manage appropriate working hours and implementing work style reforms. We believe that continuously implementing these activities is essential for maintaining comfortable working environments.

\* Notes: Employees do not include personnel on leave or those transferred to workplaces overseas.  
Period: January to December  
Annual working hours= Average number of fixed hours worked annually by employees in Japan+ Average number of overtime hours worked by employees in Japan

Achievement ratio of training plan to support employee growth (global)



In fiscal 2019, we again implement rank-specific education and quality education in accordance with an annual plan. In addition to enhancing employees' problem-solving capabilities, we also undertake measures to support future career development.

Conflict mineral\* survey implementation ratio (global)



In fiscal 2019, all matters concerning surveys of conflict minerals based on customer needs were handled by cooperating with suppliers. We start operation of a cobalt survey in fiscal 2020. We also established a Responsible Mineral Procurement Policy that can respond to changes in minerals subject to survey and risks and undertake measures that mitigate various CSR procurement risks in the mineral supply chain.

\* Minerals that are extracted in conflict regions and provide financial resources to armed groups. Conflict minerals refers specifically to gold, tantalum, tungsten, and tin products originating in the Democratic Republic of Congo and neighboring countries.

Achievement ratio of supplier CSR issues improvement plan (global)



In fiscal 2019, we performed supplier audits relating to CSR issues identified based on the results of a supplier CSR survey. In the future, we will reduce CSR procurement risks even further by conducting surveys with an expanded scope of application.

Achievement ratio of response plan for intellectual property infringement by imitation products (Overseas)



We conducted our second survey in countries subject to monitoring in fiscal 2019 and worked with government officials in Vietnam, Indonesia, and Laos to expose imitation products.

Number of significant compliance violations



In fiscal 2019, the Group did not commit any significant compliance violations.