

# Automotive Batteries



## Capturing changes in the market, we are ready to handle growing demand

GS Yuasa maintains a high market share both in Japan and globally in lead-acid batteries for starting automobiles and motorcycles. Our technological capabilities are in high demand, with customers increasingly asking for EN (European Norm) compliant batteries and batteries for vehicles with start-stop systems (ISS: idling stop systems). Global demand for automotive batteries will probably peak around 2029, but is expected to still be higher than the current level even by about 2035. In Japan, the demand for batteries for both new and replacement applications in cars is expected to gradually decline, but the demand for high value-added batteries is expected to grow in the replacement market, especially for ISS vehicles that have become popular in recent years.

In fiscal 2019, GS Yuasa domestically executed carefully targeted sales efforts that generated steady results in both the new vehicle and aftermarket sectors, including heavy-duty vehicles. On the overseas stage, as a strategy for high market share regions, we aggressively promoted value-added batteries in the ASEAN region to improve profit margins. In addition, as a strategy for as yet untapped regions, we launched measures to target Latin American markets to expand sales.

To achieve the goals of the Fifth Mid-Term Management Plan, we will restructure our marketing strategy in response to changes in the market, and

optimize our production systems. In the Japanese domestic market for example, battery replacement at car dealers is on the rise. In response to this trend, we are leveraging our strengths to build a business model that will ensure that we capture demand for the replacement needs of storage batteries that were delivered with new vehicles. With regard to the optimization of our production system, we will of course aim to strengthen our competitiveness and reduce costs, but we will also reconfigure our business continuity planning (BCP) in order to fulfill our supply responsibilities in a world where natural disasters and infectious diseases are becoming more commonplace.

### Masahiro Shibutani

Director  
Business Unit Manager of  
Automotive Batteries  
GS Yuasa International Ltd.

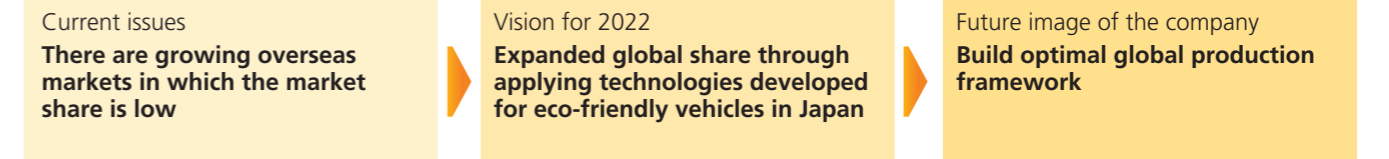


## Long-term strategy (Vision for 2030)

### Long-term vision

- Gain market share in the global market, where demand is expected to expand, by leveraging the technology used in eco-friendly vehicles cultivated in Japan
- Rebuild optimal global production system

### Recognition of issues and the future image



## SWOT

### Strengths

- Technological capabilities cultivated through R&D for Japanese automobile manufacturers
- Overwhelming brand power in Asia

### Opportunities

- Stable lead-acid battery demand in ASEAN and expanding demand in emerging markets
- Increase in demand for eco-friendly vehicles using lead-acid batteries

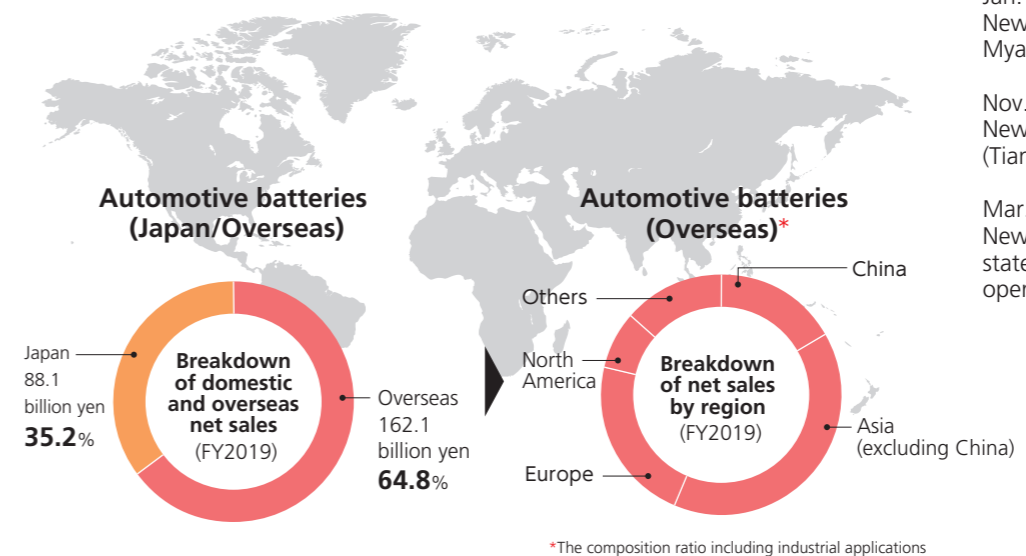
### Weaknesses

- Price competitiveness against Asian competitors (South Korea, China)
- Low market share in Europe, U.S., and China, where the demand is high

### Threats

- Growth restricted by tightening of environmental regulations in each country
- Demand levelling off due to slowing global economy and expansion of sharing businesses

## Net sales composition and major business activities in recent years



- Jan. 2018  
New company established in Myanmar
- Nov. 2018  
New plant starts operations in China (Tianjin)
- Mar. 2019  
New plant in Turkey with state-of-the-art technology starts operations

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## Japan

### Mid-Term Business Policy (Fifth Mid-Term Management Plan)

#### Business policy

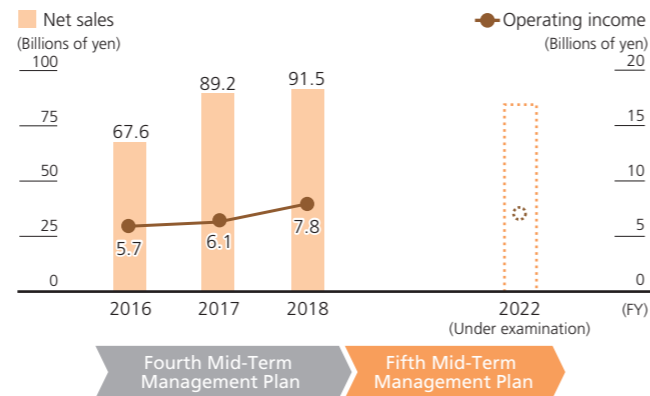
**Aim to shift to a more robust and streamlined business structure through optimal earnings mix**

#### Strategy and important tasks

- Work to optimize market share and earnings by advancing selection and concentration with emphasis on profits
- Fully demonstrate the strengths of the GS Yuasa brand and increase the weighting of high value-added products
- Productivity enhancement, cost reduction
- Develop high performance, high quality products
- Create synergies from transfer of Panasonic Corporation's lead-acid battery business

#### Performance plan

The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021. Due to the impact of the novel coronavirus pandemic, however, we have excluded fiscal 2020 as a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022 (the term ending in March 2023). Performance by business sector in fiscal 2022 is currently being examined.



### Review of operations

#### Fiscal 2019 (fiscal year ended March 31, 2020)

Net sales generated by the domestic automotive battery business in fiscal 2019 totaled 88,059 million yen (down 3,401 million yen year on year), and operating income was 6,976 million yen (down 789 million yen year on year).

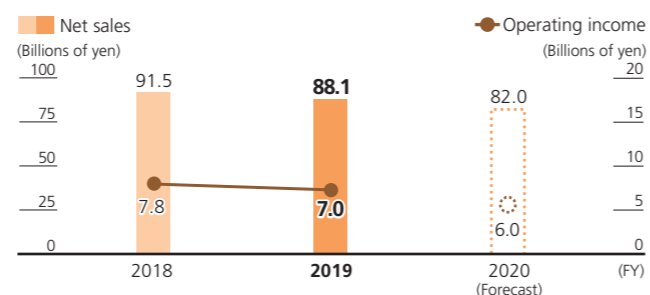
The sales volume of new automotive batteries, especially EN batteries, increased (Data 1), but sales prices fell in line with the decline in lead prices (Data 3). In the replacement sector, sales of lead-acid batteries for ISS vehicles rose. In the overall replacement market, the ratio of high value-added lead-acid batteries for such vehicles became 25% (Data 2) which points to an improvement in the product mix.

#### Fiscal 2020 (fiscal year ending March 31, 2021)

Our business forecast for fiscal 2020 is as follows: net sales of 82 billion yen (down 6.9% year on year), operating income of 6 billion yen (down 14.0% year on year).

On the sales side, we will promote the expansion of high value-added products, and on the production side, we will plan measures to build an optimal production system and improve productivity through the use of AI and IoT.

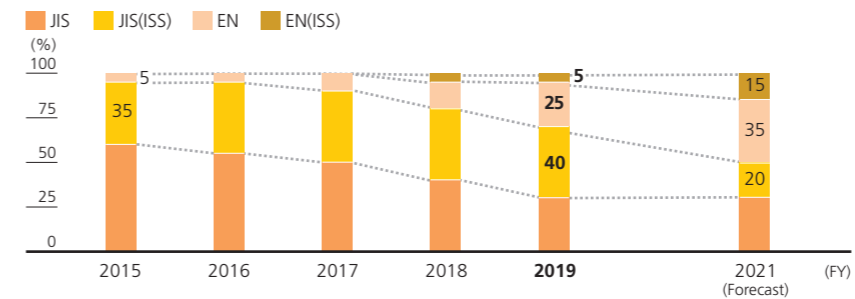
#### Financial performance



Note: Operating income is operating income before amortization of goodwill.

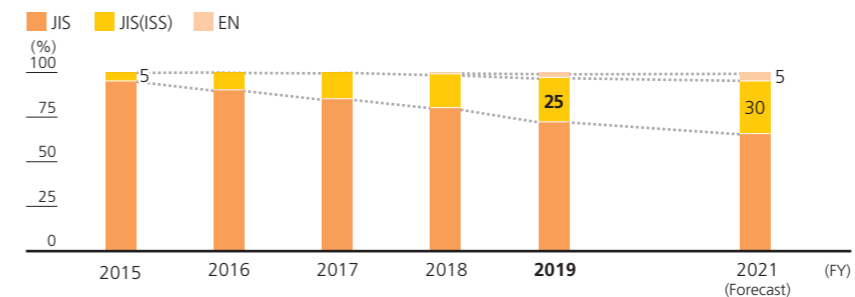
### Data

#### 1 Ratio of shipped batteries for new automobiles



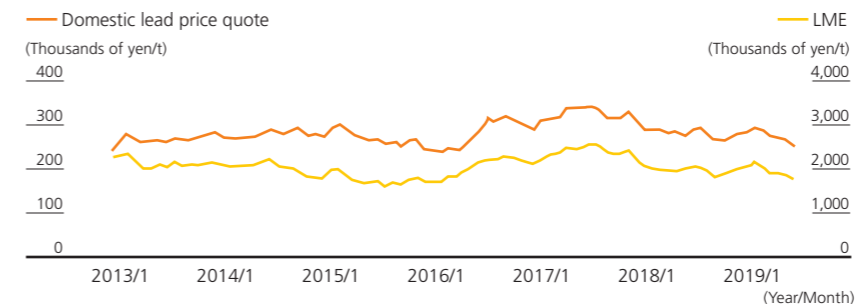
There is an increase in number of manufacturers and vehicle models that are adopting EN batteries. The ratio of high value-added lead-acid batteries for ISS vehicles including EN batteries has also been high. The company's market share for new automobile batteries will increase as demand for EN batteries rises.

#### 2 Ratio of shipped replacement batteries



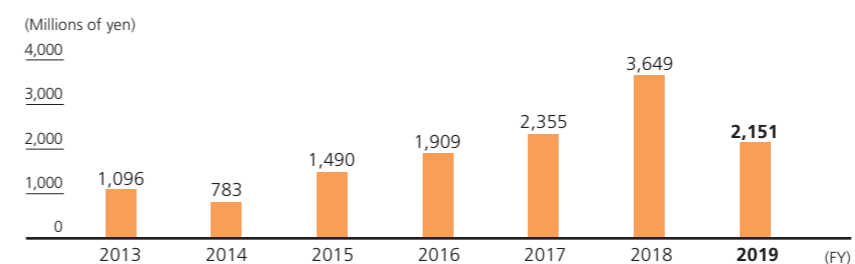
Demand for repair generated after a certain period of time from sales. Following the lead-acid batteries for ISS vehicles, there is an emerging demand for replacement of EN batteries. We aim to expand our share in the replacement market by incorporating such demand for replacements.

#### 3 Raw material prices



About 90% of the lead demand in Japan arises from the manufacture of storage batteries. Lead is an international market commodity, and its indicators are the London Metal Exchange (LME) price and the domestic lead price quote published by Mitsubishi Materials Corporation. Price fluctuations affect the selling price and profits of our storage batteries.

#### 4 Capital investment



Our capital investment in fiscal 2019 was 2,151 million yen. This consisted mainly of update and renewal costs for existing facilities. We currently have four main manufacturing bases in Japan (Kyoto, Osadano, Gunma, and Shizuoka), and we are introducing automated equipment to streamline labor operations and improve quality.

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## Overseas

### Mid-Term Business Policy (Fifth Mid-Term Management Plan)

#### Business policy

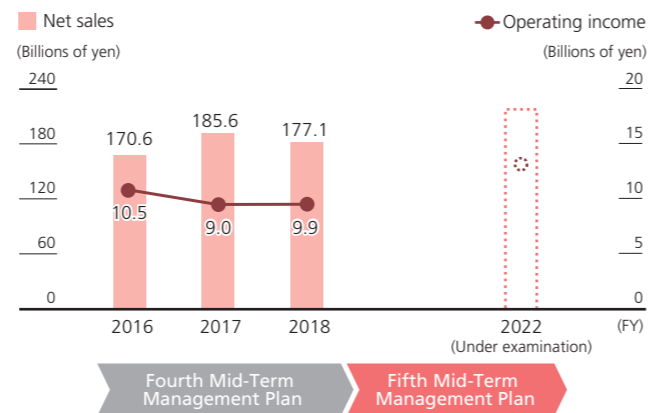
**Aim to secure profits through selection and concentration of production and sales**

#### Strategy and important tasks

- Work to enhance profit ratio by introducing new products and building an optimal production structure, while maintaining our share in regions with high market shares
- In regions with low market share, ensure sales expansion through enhancement of product line-up by building a sales and service framework
- Expand into each untapped region strategically, leveraging existing production sites

#### Performance plan

The Fifth Mid-Term Management Plan originally covered the period from fiscal 2019 to fiscal 2021. Due to the impact of the novel coronavirus pandemic, however, we have excluded fiscal 2020 as a single-fiscal-year plan and changed the fifth plan to a four-year plan ending in fiscal 2022 (the term ending in March 2023). Performance by business sector in fiscal 2022 is currently being examined.



### Review of operations

#### Fiscal 2019 (fiscal year ended March 31, 2020)

Overseas net sales generated by the automotive battery business in fiscal 2019 totaled 162,138 million yen (down 14,913 million yen year on year), and operating income was 9,187 million yen (down 739 million yen year on year).

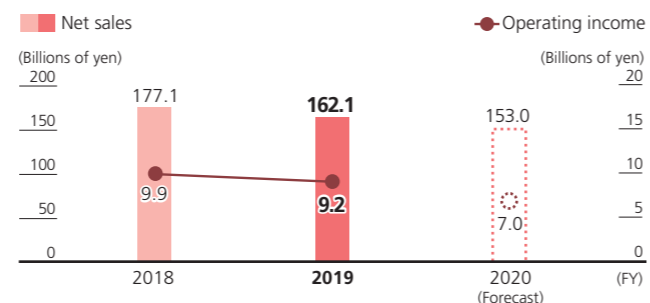
Despite the impact that the novel coronavirus pandemic had in China at the end of the fiscal year, the sales volume of batteries both for automobiles and motorcycles increased year on year in line with the market growth in the ASEAN region (Data 1). Orders for high value-added products were particularly strong, and our Thai subsidiary improved its operating income ratio by 3.6 points year on year. On the other hand, the segment as a whole was affected by lower sales prices due to lower lead prices and foreign exchange rates due to the strong yen.

#### Fiscal 2020 (fiscal year ending March 31, 2021)

Our business forecast for fiscal 2020 is as follows: net sales of 153 billion yen (down 5.6% year on year), operating income of 7 billion yen (down 23.8% year on year).

In addition to developing new products and building a production system that meets the needs of customers in the respective markets, we plan to expand our business in strategically important locations such as Turkey (Data 3) and India.

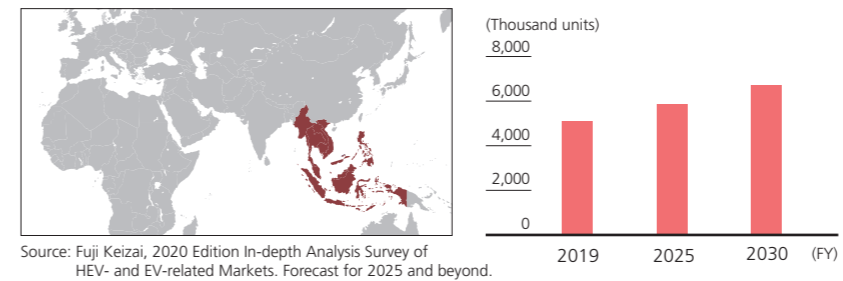
#### Financial performance



Note: In fiscal 2019, some consolidated subsidiaries in the "automotive batteries (overseas)" segment were shifted to the "industrial batteries and power supplies" segment. Accordingly, the figures for fiscal 2018 have been reclassified to reflect the revised segment categories.

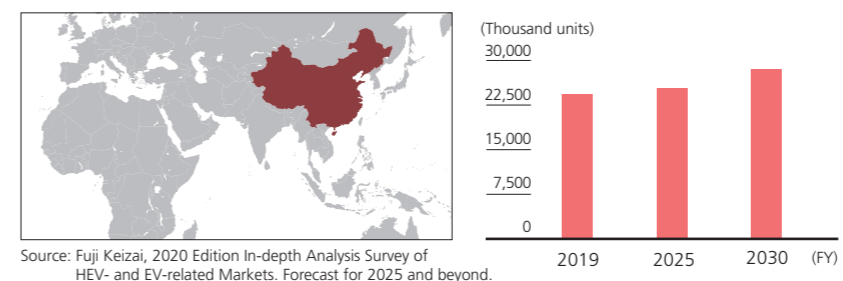
### Data

#### 1 Sales of new vehicles in the ASEAN region



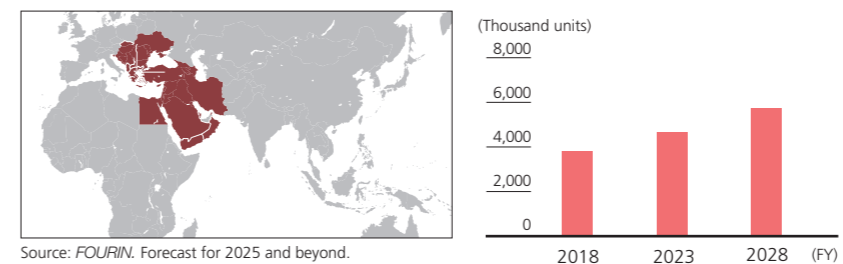
In the medium- to long-term, both new car sales and car ownership numbers are expected to increase, while new motorcycle sales are also expected to remain steady. While competition with local storage battery manufacturers is expected to intensify, maintaining market share and maintaining sales prices are challenges. We will be aiming to develop products that meet market needs, expand our sales in the replacement market, and expand sales in the Mekong Economic Zone.

#### 2 Sales of new vehicles in China



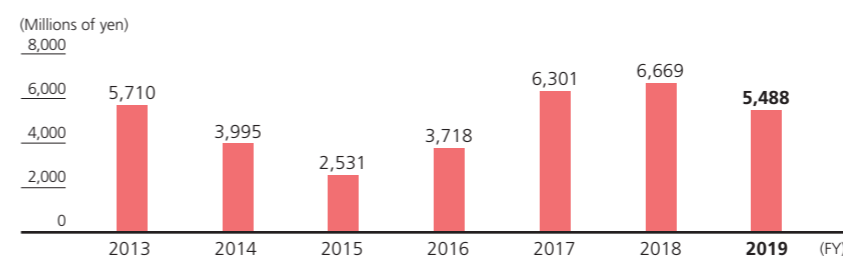
In the medium- to long-term, car ownership numbers are expected to increase. For the future, the US-China trade dispute is expected to have a dampening effect on the growth of the new car market, while also leading to more severe competition in the replacement market. However, with a view toward the expected increase of ISS vehicles due to tightened emission regulations, we will be expanding sales of high value-added batteries for such vehicles.

#### 3 Sales of new cars in Turkey and surrounding countries (Middle East / North Africa)



Both new car sales and car ownership numbers are showing an upward trend. To prepare for increased costs associated with exchange rate fluctuations and higher interest rates, we will expand sales, mainly to Turkey and to untapped markets in the Middle East, Africa, and Eastern Europe. We will also be preparing a business continuity planning that takes into account possible disruptions of the supply chain caused by geopolitical risks and their impact on factory operations.

#### 4 Capital investment



Our capital investment in fiscal 2019 was 5,488 million yen. This represents an investment in a new automotive lead-acid battery plant in China (Tianjin). By introducing state-of-the-art labor-saving equipment, we are getting ready to meet increasing demand created by ISS vehicles and fuel-efficient vehicles in response to China's stricter emission regulations.