



Automotive Battery Business Briefing

Friday, March 15, 2024

GS Yuasa Corporation

GS Yuasa International Ltd. Automotive Battery Business Unit

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1 Automotive Battery Business Overview

● Business Overview

We are engaged in the development, production, and sales of lead-acid batteries for use in automobiles, motorcycles, etc. In Japan, we operate as a manufacturer, while overseas, we are engaged in direct export sales and other operations centered on management and support of overseas sites.

<p>Japan</p>	<h3><Development, production and sales in Japan></h3> <ul style="list-style-type: none">• Development and production at 4 domestic plants• Sold to car manufacturers and replacement customers• Net sales of approx. 95 billion yen and a high market share	<table border="1"><tr><th>Category</th><th>Percentage</th></tr><tr><td>Net sales</td><td>92%</td></tr><tr><td>2W</td><td>5%</td></tr><tr><td>Others</td><td>3%</td></tr><tr><td>4W</td><td>-</td></tr></table>	Category	Percentage	Net sales	92%	2W	5%	Others	3%	4W	-
Category	Percentage											
Net sales	92%											
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Others	3%											
4W	-											
<p>Overseas</p>	<h3><Overseas sites management and direct export sales></h3> <ul style="list-style-type: none">• 18 sites worldwide• Provide technical and development support, etc.• Net sales of approx. 250 billion yen	<table border="1"><tr><th>Category</th><th>Percentage</th></tr><tr><td>Net sales</td><td>57%</td></tr><tr><td>Others</td><td>20%</td></tr><tr><td>2W</td><td>23%</td></tr><tr><td>4W</td><td>-</td></tr></table>	Category	Percentage	Net sales	57%	Others	20%	2W	23%	4W	-
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4W	-											

This is an overview of the automotive battery business.

We are in the business of developing, manufacturing, and selling lead-acid batteries for automobiles, motorcycles, and other vehicles.

In Japan, we operate as a manufacturer, while overseas, our business focuses on management and support of manufacturing and sales bases, including direct export sales.

In Japan, development and production are carried out at four plants.

The Kyoto Plant is headquartered in Kyoto, the Gunma Plant is located in Isesaki, Gunma, the Osadano Plant is located in Fukuchiyama, Kyoto and the Hamanako Plant (GS Yuasa Energy, hereafter GYE) is located in Kosai, Shizuoka.

The company sells its products to new car manufacturers and replacement customers, with sales of approximately 95 billion yen.

It has a domestic market share of approximately 51%.

Overseas, we have 18 bases around the world, including manufacturing and sales bases.

It provides technology and development support, with sales of approx. 250 billion yen.

Global market share is about 7%.

1 Automotive Battery Business Overview



History of Automotive Batteries

GS (Japan Storage Battery)



Inventor's spirit
contribute to society
by developing high
quality products

Founder of Japan Storage Battery Co., Ltd.
Genzo Shimadzu



1917:

Establishment of Japan Storage Battery Co., Ltd.

1919:

Start of automotive lead-acid batteries production

1954:

Marketing of small and light batteries for motorcycles

1966:

Establishment of first overseas site in Thailand (Siam GS Battery Co., Ltd.)

2004

Corporate Merger

2015:

Marketing of European Norm (EN) lead-acid batteries

2022:

Conversion Turkey site to a consolidated subsidiary

1918:

Establishment of Yuasa Storage Battery Co., Ltd.

1920:

Start of automotive lead-acid batteries production

1954:

Marketing of small and light batteries for motorcycles

1963:

Establishment of first overseas site (Yuasa Battery (Thailand) Pub. Co., Ltd.)

2009:

Development of lead-acid batteries for vehicles with start-and-stop systems (ISS: idling stop systems)

2016:

Acquisition of lead-acid batteries business from Panasonic Corporation

2023:

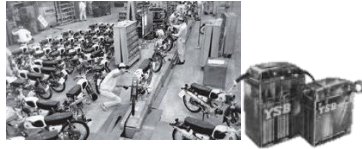
Conversion two subsidiary companies in China to an equity-method affiliate



Challenging spirit
develop new
businesses ahead of
time

Founder of Yuasa Storage Battery Co., Ltd.
Shichizaemon Yuasa

YUASA (Yuasa Corporation)

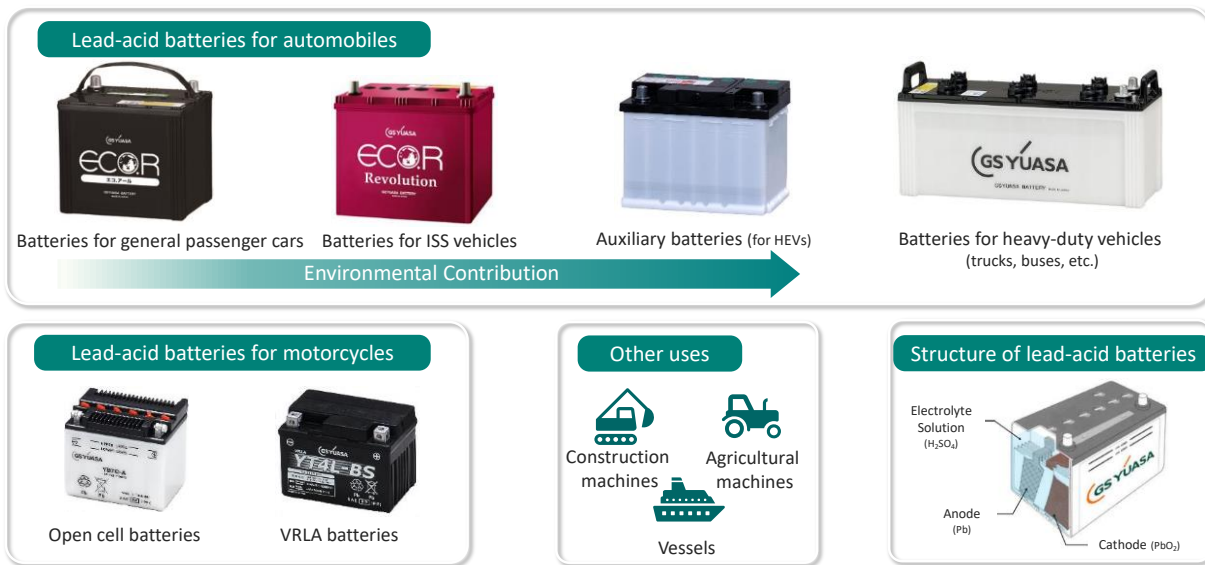


In 2004, Japan Storage Battery Co., Ltd. and Yuasa Corporation merged to form GS Yuasa.

Both companies have been leading the industry with their respective inventive and challenging spirit for 100 years and continue to do so today.

1 Automotive Battery Business Overview

● Products



These are the products handled by our automotive battery business.

They are mainly used to start engines for automobiles, and in recent years, for auxiliary use for electric vehicles ("EVs") and hybrid electric vehicles ("HEVs"), as well as for a wide range of other engine vehicles such as trucks, buses, construction machinery, and agricultural machinery.

For motorcycles, both liquid-type open and sealed valve regulated lead-acid (VRLA) systems are available, with VRLAs becoming the mainstream in recent years.

Regarding the structure of lead-acid batteries, they are composed of lead and lead alloy electrodes and dilute sulfuric acid.

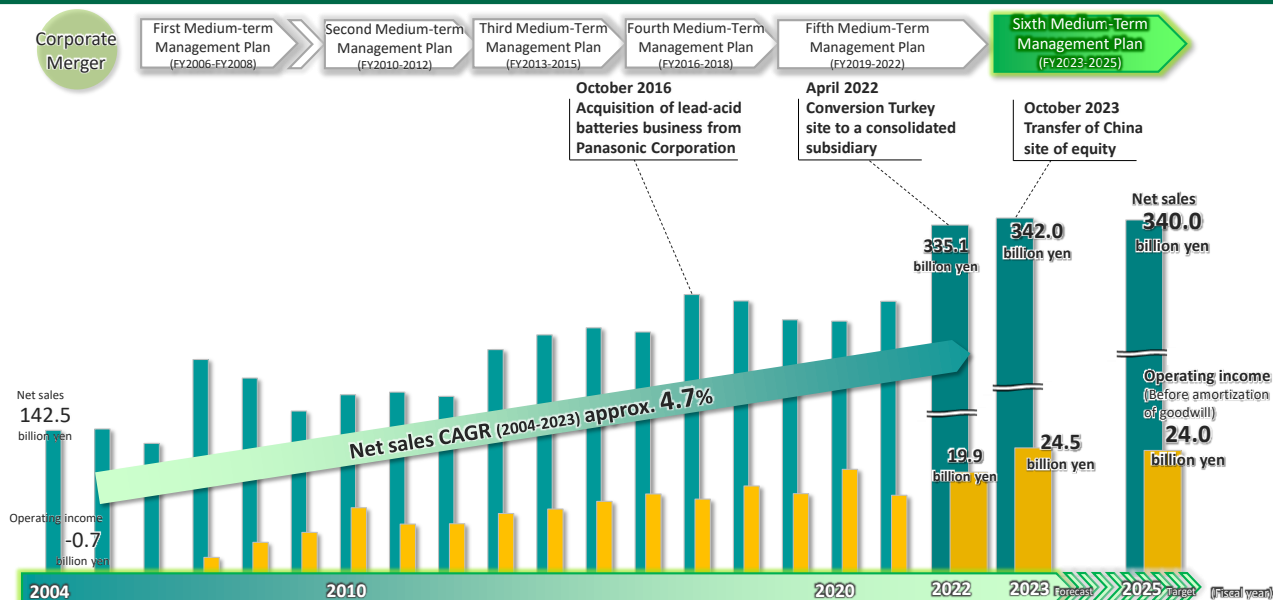
It is a very high material cost product that is completed with a final charge.

The ratio of raw materials is approximately 65% lead, 10% resin, and 25% other components.

For auxiliary equipment for HEVs and EVs, they are specially designed and installed in the trunk of the car or under the seat.

These batteries are used in 12V systems such as HEV systems, EV startup, navigation, power windows, door locks, etc.

1 Automotive Battery Business Overview



This is the performance transition of the automotive battery business after the corporate merger.

For the first three years after the integration, we were engaged in general production and sales activities with a broad lineup of products to maintain the existing customer system. Therefore, the situation was so severe that it is said that the automotive battery business was in the dark ages because it was not profitable.

Sales rose in 2007, but this was due to a sharp rise in the price of lead, a raw material. This surge in lead prices accelerated the turnaround of the business and the shift from quantity to quality. Although sales declined from 2007 to about 2010, the domestic business began to improve as a result of structural reforms, including the consolidation of models and a shift from quantity to quality, in response to the decline in physical volume.

In line with the restructuring of our business strategy, we also changed our marketing strategy to concentrate on value-added products for replacement batteries. In addition, sales have steadily expanded since then, due in part to increased demand overseas.

There was a major turning point in 2016. In Japan, we took over Panasonic Storage Battery Co., Ltd. In addition, we promoted mutual collaboration in the production technology development field.

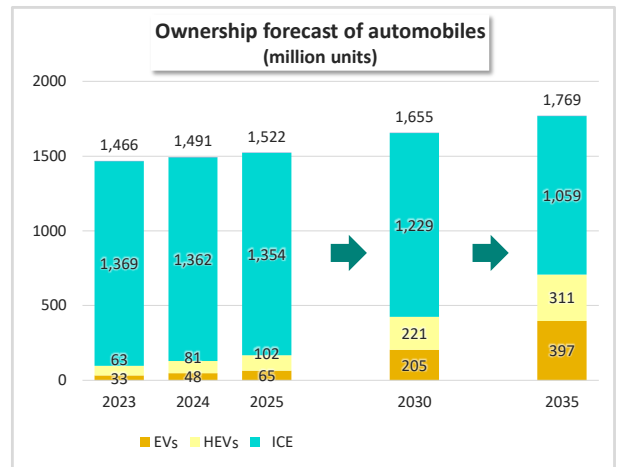
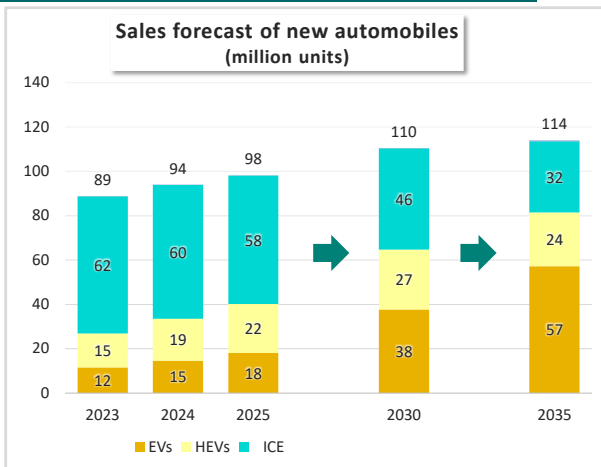
In 2022, the Turkish site will become a consolidated subsidiary, completing the reinforcement of the production and supply base that has been a challenge in Europe. This has strengthened our supply system both domestically and internationally. On the other hand, in 2023, from the viewpoint of business selection and concentration, we converted our China base to equity method.

With net sales of 342.0 billion yen and operating income of 24.5 billion yen for the current fiscal year, we are moving forward with our business to exceed the final year (FY2025) targets of the Sixth Mid-Term Management Plan, which are net sales of 340.0 billion yen and operating income of 24.0 billion yen.

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2 Market Trends

For automobiles: Forecast of global vehicle volume



Note: Prepared by GS Yuasa based on materials

- Sales of new electric vehicles will increase, with EVs accounting for about half of new automotive sales in 10 years.
- In terms of the ownership, EVs will gradually increase mainly in developed countries and China, but will only account for about 20% of the total in 10 years.

This is a forecast of the number of vehicles globally for automobiles.

There is no doubt that sales of electric vehicles will increase in new automobiles sales. Although EVs could account for about half of the total in 10 years, we see the possibility that the ratio of EVs to HEVs could be 50-50, which is fluid.

The total number of new vehicles is expected to increase from about 90 million to about 114 million, with a steady increase in the volume of new automobiles.

As for the number of vehicles owned, EVs will gradually increase, especially in developed countries and China, but we assume that even 10 years from now, EVs will account for about 20% of the total.

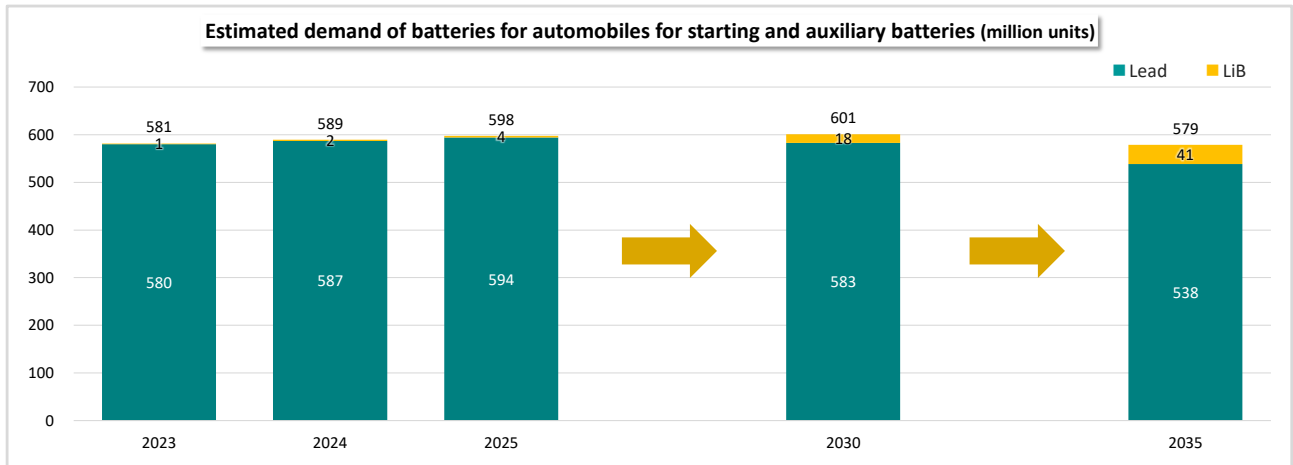
The total number of vehicles owned is assumed to increase from approximately 1.5 billion in 2023 to approximately 1.8 billion in 2035.

New automotive sales of EVs are expected to grow, especially in Europe, China, and North America, where there are many vehicles, but looking at the recent situation, we expect that growth may slow down due to many issues such as resources and infrastructure. We make this assumption because electrification is greatly influenced by the policies of each country.

While electrification will continue in developed countries and China, we assume that internal combustion engine vehicles ("ICEs") will remain in the rest of the world and that the number of ICEs owned will not decrease significantly. Therefore, we assume that the demand for lead-acid batteries for starting ("SLI") and auxiliary equipment will not decrease significantly even in 2035.

2 Market Trends

For automobiles: Global battery demand forecast (starting and electric vehicle auxiliary batteries / excluding for drive force)



Note: Prepared by GS Yuasa based on materials

- Since electric vehicles are often equipped with lead-acid batteries as auxiliary batteries, we assume that the demand for lead-acid batteries will not decline at an accelerated pace.
- The change in battery demand depends on factors other than vehicle electrification, such as population (licensed population) increase or decrease, infrastructure and policies in each country, etc.

This is the global demand forecast for batteries for automobiles.

We assume that demand for lead-acid batteries will remain mostly flat, at approximately 580 million units in 2023 and even 580 million units in 2035.

There will also be some demand for 12V LiBs that are not for driving.

Electric cars are equipped with lead-acid batteries for auxiliary equipment.

We do not expect demand for lead-acid batteries to decline at an accelerated rate.

The increase or decrease in battery demand, other than vehicle electrification, also depends on population increase or decrease, infrastructure development, and policies of each country.

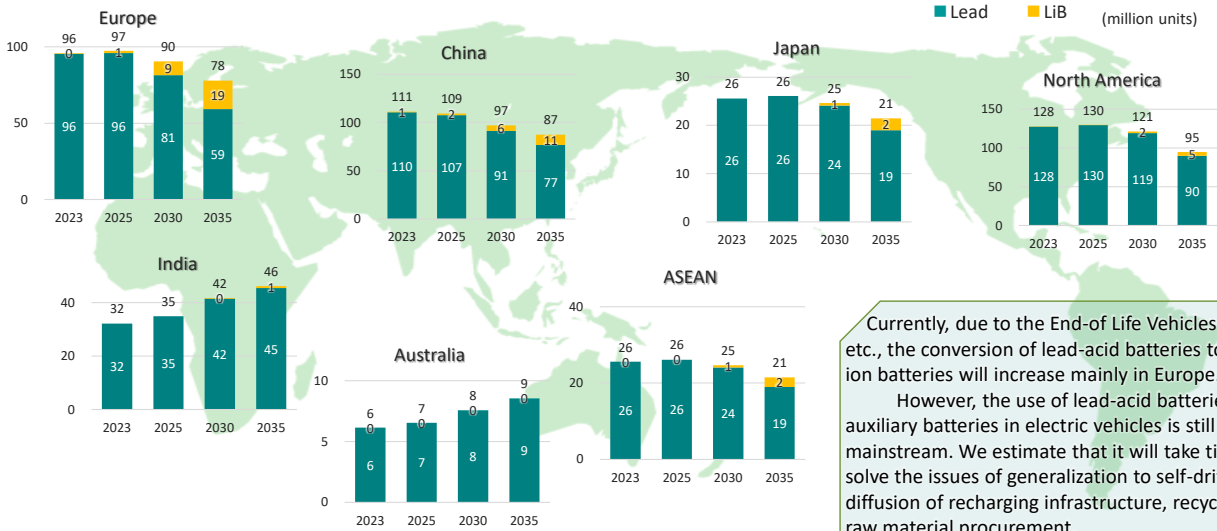
Electrification does not = LiB conversion but exists for auxiliary equipment.

Whether 12V for auxiliary equipment will be lead or LiB will be considered by new car manufacturers, but considering cost, recycling, and ease of use, it is unlikely that all 12V will be LiB since lead-acid batteries are easy to use.

Thus, we believe that lead-acid batteries will continue to be the mainstream, although the shift to LiBs will continue with certain level.

2 Market Trends

For automobiles: Battery demand forecast by main region (starting and electric vehicle auxiliary batteries / excluding for drive force)



Currently, due to the End-of Life Vehicles Directive, etc., the conversion of lead-acid batteries to lithium-ion batteries will increase mainly in Europe. However, the use of lead-acid batteries for auxiliary batteries in electric vehicles is still the mainstream. We estimate that it will take time to solve the issues of generalization to self-driving cars, diffusion of recharging infrastructure, recycling, and raw material procurement.

Note: Prepared by GS Yuasa based on materials

This is the global demand for batteries in major regions.

We believe that Europe will be the main area where demand for lead-acid batteries will decline.

We expect a decline in North America, where manufacturers such as Tesla are strong, but we expect to see major changes, such as a change of government.

In Japan, the decline in the number of license holders due to the low birthrate and aging population will have a significant impact, and we believe that the use of automobiles will also change due to car sharing and other factors.

We assume that Japan will be able to reap stable demand with a slight but steady decline.

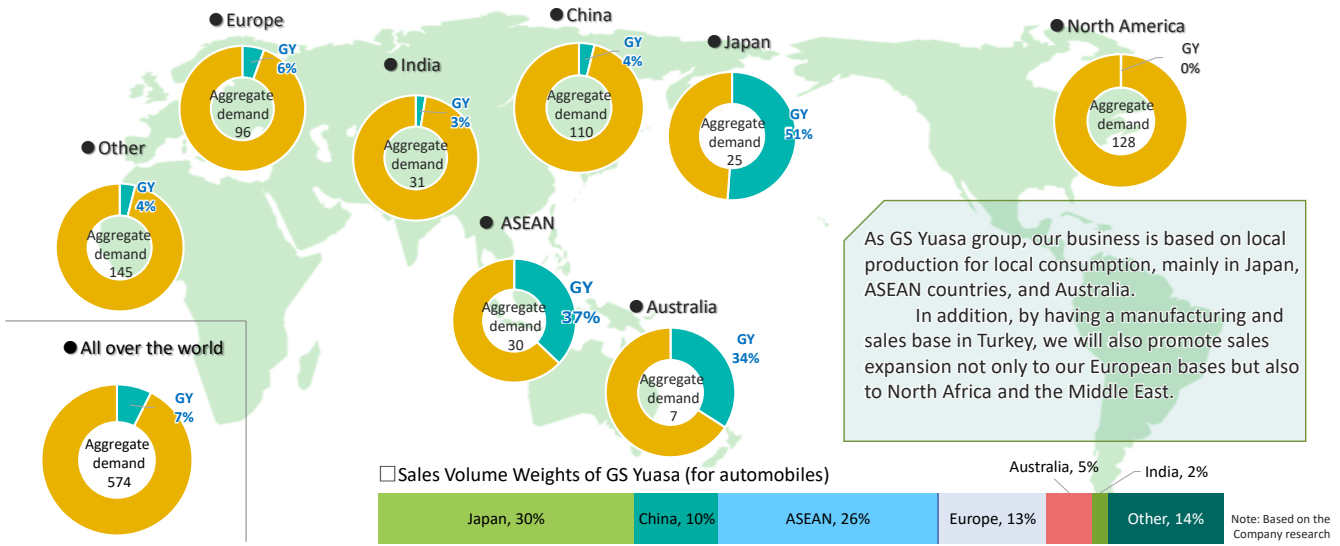
We expect demand for lead-acid batteries in ASEAN and Australia, our main markets, to be stable and firm.

The market is expanding in India and in China in terms of volume, but the market will be a hurdle for foreign companies, including business practices, so we will have to take a hard look at the market.

2 Market Trends

Share: estimated share of automotive lead-acid batteries by major region (FY2022)

(aggregate demand: million units)



This is our market share of lead-acid batteries for automobiles in major regions.

Our group is based on community-based business with local production for local consumption, mainly in Japan, ASEAN countries, and Australia.

Local production for local consumption means selling lead-acid batteries in the area where they are actually manufactured, and doing business within the area that reaches from the area where they are manufactured.

By having a manufacturing and sales base in Turkey, we will not only supply our European bases, but also promote sales expansion to North Africa and the Middle East.

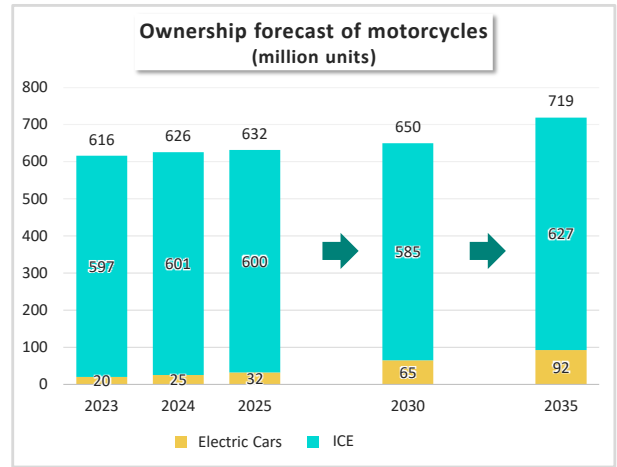
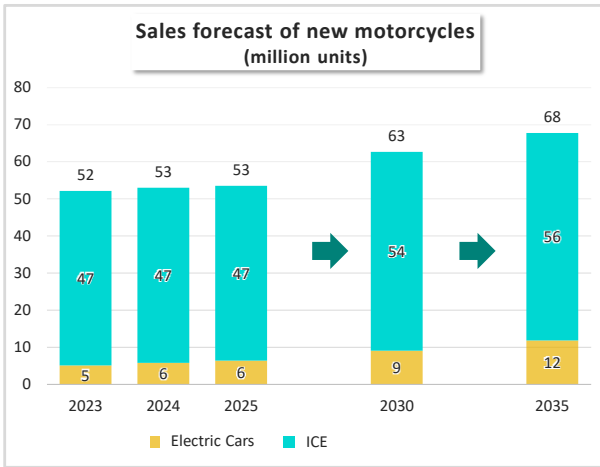
China is unlikely to see a decrease in market share as the management rights have been transferred to a Chinese partner, which will be more closely tied to the local market.

As I mentioned earlier, we will concentrate our resources in ASEAN, Europe, Australia, and Japan.

We will also expand sales to Africa and the Middle East, using Europe as a gateway.

2 Market Trends

For motorcycles: Forecast of global vehicle volume



- Motorcycle sales are projected to increase, especially in India.
- Motorcycle is often used as everyday transportation, and we estimate that electrification is limited to corporate customers.

Assumed volume of motorcycles.

We expect motorcycle sales to increase, especially in India.

Market size is smaller than that of automobiles.

Sales volume will range from 52 million units in 2023 to 68 million units in 2035. The number of cars owned will range from about 620 million to 720 million.

With the exception of Europe and the United States, motorcycles are used as a means of transportation for daily life by users, especially in Asia, and we assume that the electrification of motorcycles will be limited to corporate applications.

It is our view that electrification of motorcycle is more difficult than for automobiles.

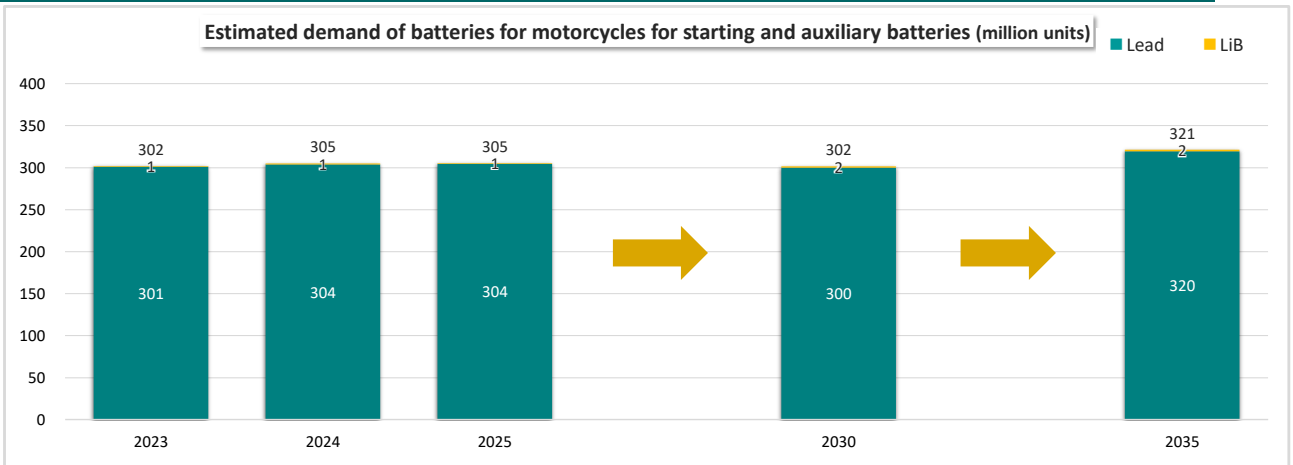
Lithium life is another challenge for two-wheeled electric vehicles. It does not have the longevity of automobiles and is used heavily. The life expectancy is less than 5 years.

In the Asian region, it is common for scooters and 125cc motorcycles to carry three or four passengers, and it is also common for them to be overloaded for transporting luggage.

Another factor is that they are used in harsh conditions for batteries, as they are subjected to considerable repetition of stop-and-go traffic due to heavy congestion.

2 Market Trends

For motorcycles: Global battery demand forecast (starting and electric vehicle auxiliary batteries / excluding for drive force)



- Demand for motorcycles is mostly for daily use in non-developed countries such as ASEAN and India, and it will take time for the shift to electric vehicles to take off.
- In addition to the limited space for batteries in two-wheeled electric vehicles, there are still many issues to be addressed, such as the need for small size, flexibility in shape, and cost advantages.

This is a global battery demand forecast.

Demand for motorcycle batteries is expected to increase slightly.

We are looking at an increase of about 7%, with about 300 million units in 2023 and 320 million units in 2035.

We assume that there will be demand for 12V LiBs in 2030-2035, but that it will not increase much.

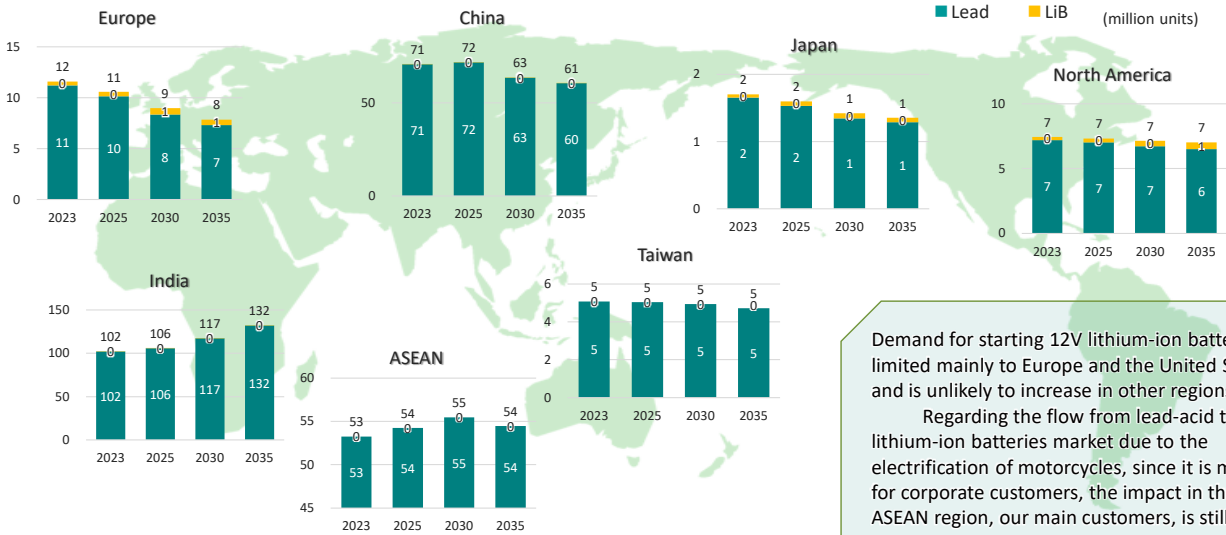
Demand for motorcycles is mostly for use as daily footwear in non-developed countries such as ASEAN and India, and we do not see any advantage for electric vehicles.

We believe that there are still many issues to be overcome, as battery mounting locations are limited and difficult to design.

Demand for lead-acid batteries for motorcycles is not expected to change rapidly, and we do not expect a significant decrease in the quantity of lead-acid batteries.

2 Market Trends

For motorcycles: Battery demand forecast by main region (starting and electric vehicle auxiliary batteries / excluding for drive force)



Demand for starting 12V lithium-ion batteries is limited mainly to Europe and the United States and is unlikely to increase in other regions. Regarding the flow from lead-acid to lithium-ion batteries market due to the electrification of motorcycles, since it is mainly for corporate customers, the impact in the ASEAN region, our main customers, is still small.

This is the battery demand forecast by major region.

By region, the trend is similar to that for automotive batteries, but in Europe, where interest in lead restrictions is high, 12V LiBs are also expected to increase for new motorcycles, and demand for lead-acid batteries is also expected to decline.

In ASEAN and India, where demand for motorcycles is high, lead-acid batteries are the mainstream and demand will increase.

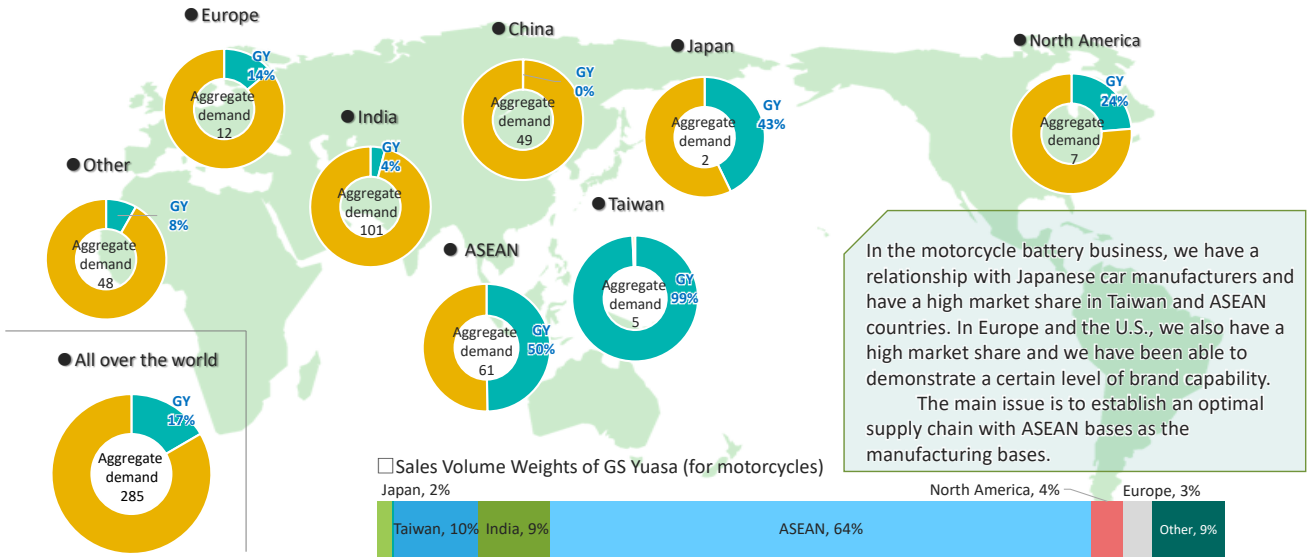
For reference, Gogoro, a Taiwanese electric scooter manufacturer, has a problem that lead-acid batteries for motorcycles are difficult to convert to LiB because of battery complaints, heavy infrastructure costs and difficult quality control, and many technical challenges.

In North America, the market is flat without much volume and is used entirely for pleasure use, so there is no fluctuation in terms of demand, and we do not expect a major shift to LiBs.

2 Market Trends

Share: estimated share of lead-acid batteries for motorcycles by major region (FY2022)

(aggregate demand: million units)



In the motorcycle battery business, we have a relationship with Japanese car manufacturers and have a high market share in Taiwan and ASEAN countries. In Europe and the U.S., we also have a high market share and we have been able to demonstrate a certain level of brand capability. The main issue is to establish an optimal supply chain with ASEAN bases as the manufacturing bases.

Our market share in major regions.

Our market share is high outside of China and India.

We will continue to strengthen our supply chain, particularly in the ASEAN region. Batteries manufactured in ASEAN are also sold in Europe and the United States, and the supply chain will be strengthened for this purpose.

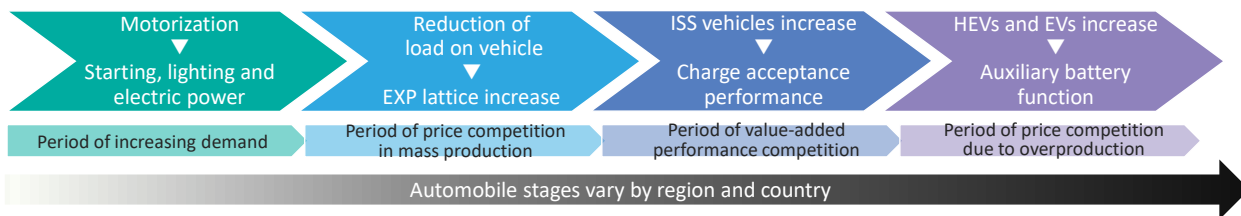
We believe that the Indian market, like the automotive battery market, is a market with high hurdles for foreign companies, and therefore, careful decisions are necessary.

Unlike automotive batteries, the YUASA brand is highly recognized in North America. In North America, we have a base for manufacturing motorcycle batteries and have a certain presence there, which we will further expand.

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3 Sixth Mid-Term Management Plan

● Evolution of Automotive Lead-acid Batteries



● History of GS Yuasa's Policy

- ✓ Evolve batteries and accumulate know-how based on the development of Japanese automobiles
- ✓ Expand business sites globally in tandem with market size and expansion (local production for local consumption)



● GS Yuasa's Strengths

- ✓ Development, manufacturing, and know-how of batteries matched to vehicles
- ✓ Cooperation with overseas partners, especially in ASEAN
- ✓ Sales network of distributors and other agents in each region

Formation of brand strength

Regarding the development and evolution of lead-acid batteries for automobiles, we have been working together with new car manufacturers in the development of their vehicles.

SLI functionality was the main focus during motorization in the 1960s, but later expanded for mass production and cost reduction, and production efficiency was required in the 1980s and 1990s.

At the timing of the shift to expanded production, companies began mass production, resulting in price competition and lower prices. This is where each battery manufacturer entered the path to profitability.

Around 2010, ISS vehicles were introduced as environmentally friendly vehicles, and the value of lead-acid batteries increased due to the need for improved charge acceptance performance and durability. We recognize this as a major turning point.

This is the timing of the start of selling batteries with value-added performance.

In the replacement battery market, we had been developing models for which demand usually occurs several years after new car sales, but when ISS vehicles were introduced, the company shifted its strategy to a value-added route by introducing batteries with improved charge acceptance performance in the replacement market ahead of the competition as a new marketing strategy.

It was a time when the competitive field shifted from the price arena to the value-added arena.

Prius HEVs started to sell in 1997. At that time, we sold JIS-standard VRLA batteries, but due to the wave of global standards, we developed EN (LN) standard auxiliary batteries starting in 2015, which are now the mainstream batteries.

Since each country region has different vehicle stages in this way, we have promoted production and sales matched to each country and region.

We have evolved batteries and accumulated know-how based on the development of new automobiles of Japanese car manufacturers.

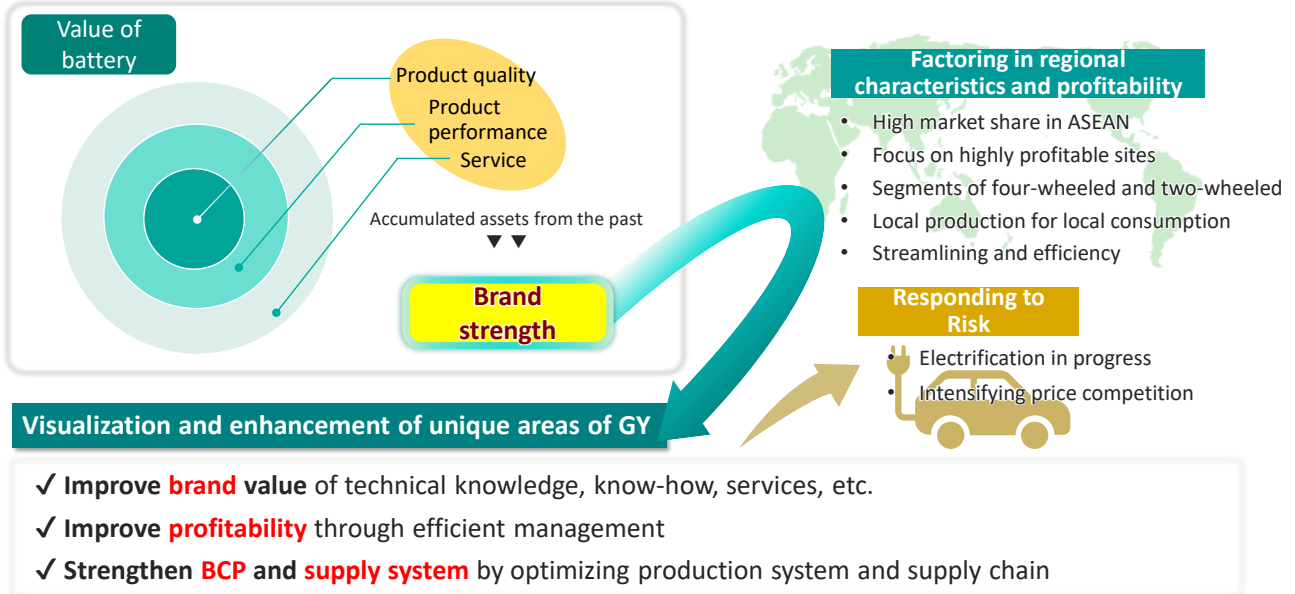
In addition, we have been expanding our business globally in tandem with the expansion of the market size, and have been promoting business based on local production for local consumption.

In this context, our strengths are;

- Development, manufacturing, and accumulation of know-how in battery matched to vehicles
- Cooperative relationships with overseas partners, particularly in the ASEAN region. In particular, we have strong partnerships with Thailand and Indonesia
- Service and support will be developed through a sales network of distributors and other sales agents in each region

These have led to the formation of our brand strength.

3 Sixth Mid-Term Management Plan



I would like to discuss the Sixth Mid-Term Management Plan.

We would like to maximize the visibility of our accumulated resources and further brush up our brand value to drive the market.

As the value of batteries, we will strive to improve our brand strengths in each country and region by polishing our assets accumulated from the past, such as product quality, product performance, and service, as brand strengths and by fostering brand loyalty.

Demand for lead-acid batteries is not expected to decline significantly.

In this environment, we expect our production volume to increase and we will have an even greater responsibility to supply the market.

With the recent wind disasters and conflicts in many countries, BCP responses are not waiting for us.

Therefore, we will continue to improve our production system.

3 Sixth Mid-Term Management Plan

● Positioning of the Sixth Mid-Term Management Plan

We aim to become an "innovative and well-established company" by clearly stating and spreading the value of our existence and expanding our earnings based on our assets, "lead-acid battery technology development capabilities" and "sales channels, partners, and services". The Sixth Mid-Term Management Plan period is "a period for strengthening the management foundation" for this purpose.

Laying the groundwork for increased earnings and efficiency in the lead-acid battery business

1st -FY2025

● Theme

Restructuring management structure and visualization and polishing strengths

● Points

- ✓ Improvement in operating income ratio
- ✓ BCP promotion
- ✓ Visualization of strengths

Target for FY2025

- Japan : Net sales of ¥100.0 billion yen and operating income of ¥7.0 billion
- Overseas : Net sales of ¥240.0 billion and operating income of ¥17.0 billion

Transformation into a business that can secure stable earnings

2nd -FY2028

● Theme

Expansion of earning rate and evolution and penetration of unique value

● Points

- ✓ Creation of brand value
- ✓ Completion of BCP promotion system
- ✓ Promotion of management efficiency

Transformation into an "innovative and well-established company"

3rd -FY2034

● Theme

Earning solid revenues Model establishment and continuation

● Points

- ✓ Strengthening of revenue base
- ✓ Considering next business model
- ✓ Selection and concentration

This is the positioning of the Sixth Medium-Term Management Plan.

We will enhance our value based on our assets of "lead-acid battery technology development capabilities" and "sales channels, partners, and services".

We use the term "innovative and well-established," and in this position we will make our presence known to the market.

This Sixth Mid-Term Management Plan is positioned as a "period for strengthening the management foundation" for this purpose.

We have divided the last 10 years into three phases, and as the 1st step, we will transform the company into a profitable management structure.

The final year targets of the Sixth Mid-Term Management Plan are sales of 100.0 billion yen and operating income of 7.0 billion yen in Japan and sales of 240.0 billion yen and operating income of 17.0 billion yen overseas, and we will exceed these targets in FY2023. We will aim to further increase sales and profits.

Most recently, profitability in the domestic business is expected to improve significantly due in part to a correction in selling prices in the new automotive business.

We will also promote the establishment of a BCP system.

Regarding overseas, we will implement selection and concentration.

In the next Seventh Mid-Term Management Plan, we aim to complete the establishment of a BCP system, or production system.

In the 3rd step after 10 years, we aim to be in a position to acquire solid earnings under the completion of the BCP system.

3 Medium to Long-Term Plan

Japan



- **Creation of roadmap for optimal production system**
 - Establishment of a production system with an eye to the future
 - BCP Promotion
 - Promotion of manpower saving
- **Improve profitability of sales of new automotive batteries**
 - Promotion of fair selling prices
 - Promote activities linked to the market for replacement
- **Restructuring of marketing for sales of replacement batteries**
 - Restructuring of marketing strategy

Establishment of optimal supply system responding to changes in the business environment and improvement of earning rate

- **Develop strategies by region and individual company**
 - Concentrate strategy especially on ASEAN
 - Optimization and stabilization of supply chain
 - Development of joint strategy with Industrial Batteries and Power Supplies Division
 - Sales expansion in the replacement market
- **Sustainable Management**
 - Improve global management efficiency
 - Promote production efficiency and rationalization
 - CSR Promotion

Reform management structure and strengthen profitability for the future due to selection and concentration



Overseas

This is the policy in Japan and overseas in the mid-term management plan.

In Japan, we believe that the role we will be expected to play in the future is supply responsibility.

In terms of countermeasures against wind disasters that occur every year in Japan, we will build a BCP system, prepare for the future, and improve production efficiency.

We will also promote activities to improve profitability in sales.

The challenge is to establish an optimal production system that responds to changes in the business environment and to improve profitability.

Our market share for new automobiles is nearly 70%.

In Japan, our role is to fulfill our responsibility to supply.

Overseas, we will formulate and develop strategies by region and country, with a focus on strengthening measures in ASEAN and Europe.

Since some of the other locations are engaged in the industrial battery and power supply business, we will promote measures in cooperation with the Industrial Battery and Power Supply Division.

We will reform our management structure and strengthen profitability for the future through selection and concentration.

3 Medium to Long-Term Plan

● Priority Issues (Japan)



Profitability improvement

- Improvement of profitability by appropriately reflecting raw material prices, etc. in selling prices
- Creating a revenue-generating system linked to the replacement market, 12V lithium-ion batteries, etc.



Creation and starting of optimal production system proposal

- Establishment of optimal production system plan for the future
 - ✓ Establishment of stable production and supply system
 - ✓ Rapid response to demand fluctuations
 - ✓ Promote rationalization and efficiency



Marketing reconstruction

- Restructuring of marketing strategy
- Efficient operation of business management
- Expand sales of high value-added batteries

We will plan immediately to establish our strategies for the new car society such as declining birthrate, aging population, young people's shift away from cars, etc.

In addition, we also establish a system and structure for earning revenue as we reduce supply risk for the growing needs of new car manufacturers for us.

This is a priority issue in Japan.

For new automobiles, the imperative is to improve profitability.

We will improve earnings by reflecting appropriate selling prices for raw materials, etc., further expanding the replacement market, and creating a mechanism for earning profits linked to 12V LiBs.

For replacement, we will establish an efficient management structure by further expanding sales of high value-added batteries, restructuring marketing strategies, and efficiently operating business operations, including rationalization.

In terms of production, the challenges are to establish an optimal production system and to respond to BCP.

To build an optimal production system with an eye to the future, we will establish a stable production and supply system, respond quickly to demand fluctuations, and promote rationalization and efficiency.

In addition, we will establish a system that allows us to manufacture models for new automobiles at any of our locations.

We will work to eliminate production imbalances between plants and reduce logistics risks.

For models for new automobiles, we supply only products from the determined and certified factories.

For example, products manufactured at the Osadano Plant are delivered to new car manufacturers as exclusive products. Even if the same product is manufactured at the Gunma Plant, it cannot be supplied from the Gunma Plant.

We believe that "anywhere production" should be promoted from the standpoint of BCP as well as eliminating production imbalance by establishing a system that enables supply to new car manufacturers from any production base as "anywhere production."

In the future, we will hasten to formulate strategies for a new car society due to the declining birthrate, aging population, and young people's shift away from cars.

We recognize that the first and foremost task is to respond to the growing needs of new car manufacturers for our company and to create a mechanism to earn stable profits while reducing supply risks.

3 Medium to Long-Term Plan

● Priority Issues (Overseas)



ASEAN ; Automotive batteries

- Expansion centered on the Thailand site
- Expansion of production capacity and efficiency
- Expansion to neighboring countries

In the automotive battery business, we will strengthen our competitiveness by promoting enhancement and streamlining of the production system, centered on the Thailand site. We also promote sales expansion to neighboring countries and build a solid structure in lead-acid batteries business in the ASEAN region.

In addition, we will further strengthen our brand strength that we have built with our partners.

In the motorcycle battery business, mainly at the Indonesian site, we will sublimate global and stable supply chain into something solid.

We also strengthen its activities rooted in the market by maximizing the use of wide range of product lineup, overwhelming production volume, and brand strength.



ASEAN ; Motorcycle batteries

- Focusing on the Indonesia site
- Stabilization of supply chain
- Cost reduction
- Capturing demand in Vietnam

This is a priority issue overseas (ASEAN).

For automotive batteries, we will continue to expand our operations with our bases in Thailand and Indonesia as the core. We will also expand our production capacity and efficiency, and expand to neighboring countries.

Currently, we are expanding our production capacity to 5 million units per year in Thailand. Next, we are moving forward with the expansion of our production capacity to 6 million units per year.

At the same time, we will promote labor saving and automation to expand production capacity and improve efficiency.

As for expansion into neighboring countries, we will use Thailand and Indonesia as hubs to expand sales to Malaysia, Cambodia, Myanmar, and Vietnam.

We will continue to expand production of automotive batteries, mainly at our bases in Thailand and Indonesia, and we will also use these hubs to expand sales in neighboring countries in the ASEAN region.

In addition, the GS Yuasa Asia Technical Center in Thailand will be fully utilized to shorten and localize product manufacturing and development.

For motorcycle batteries, we will focus on our Indonesian base.

We currently produce and sell approximately 20 million units in Indonesia. We will work to reduce costs by stabilizing the supply chain, and to reduce labor and automate facilities.

We will also capture demand from Vietnam, which is expected to expand significantly in the future. We are currently producing and selling 6.8 to 6.9 million units per year in Vietnam, and are looking to expand further.

3 Medium to Long-Term Plan

● Priority Issues (Overseas)



Europe



- Automobiles: Expand sales to Europe, North Africa, and the Middle East
- Motorcycles: Optimization of global Supply Chain
- Electrification: Expand sales of industrial batteries

In Australia, we will create added value and increase the value of our presence in Australian society, based on the original marketing strategy (Made in Australia) promoted under the COVID-19.



In Europe, in addition to the existing sales sites, with the consolidation of a production site in Turkey in FY2022, we aim to gain residual profit by expanding sales due to prompt supply of products to North Africa and neighboring countries.

In addition, our European sites have focused on industrial batteries in the past. We are working to strengthen activities to ensure profitability as a site.



Australia



- Promote unique marketing in Australia
 - ✓ Product strategy of "Made in Australia"
 - ✓ Production capacity expansion
 - ✓ Strengthening of unique services

This is a priority issue overseas (Europe and Australia).

In Europe, in addition to GS Yuasa Battery Europe Ltd. as a conventional sales base, we will promptly supply products and expand sales to neighboring countries such as North Africa by establishing a production base in Turkey, which will be consolidated from FY2022.

In addition, our European bases have been focusing on industrial batteries in the past, and we will continue to expand sales of these products in Europe and Africa. This is a battery for forklifts.

In Australia, we will create added value through a community-based marketing strategy of "Made in Australia", which we promoted with the COVID-19, to increase our presence in Australian society.

As the only battery manufacturer in Australia, we will continue to pursue the path of local production for local consumption.