

Business Strategy

Specialty Materials*

* Includes Polymers & Compounds, Films & Molding Materials, and Advanced Solutions

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MCG Group's engine for profitable growth

In the Specialty Materials business, we will achieve sales growth and improved profit margins through fiscal 2025 by executing three key strategies in line with the growth, performance, and sustainability pillar. We have defined EV/Mobility, Digital, and Food as our strategic focus because we expect particularly strong growth in these markets. We aim to grow our businesses at a rate commensurate with market growth. We will transform the Mitsubishi Chemical Group into a specialty materials group by strengthening the position of our products in markets where growth is expected, developing our businesses globally, and stepping up innovation to solve sustainability issues.

Strategic focus

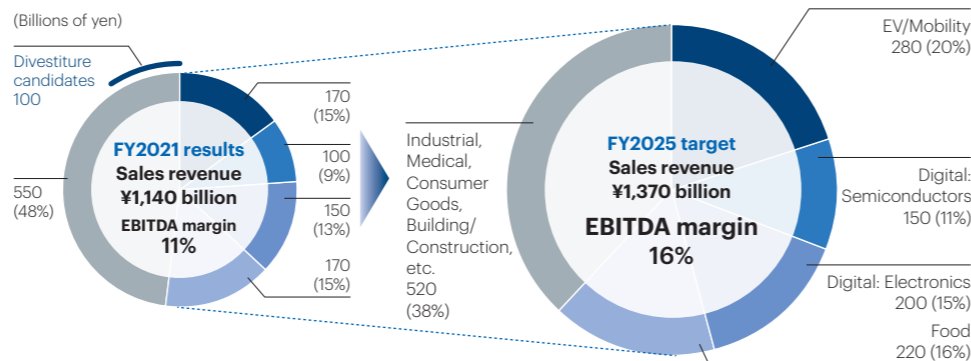
- Move from product-focused to market-oriented organization
- Grow existing products globally
- Build leadership positions in sustainability areas

	FY2021 results	FY2025 target
EBITDA (Billions of yen)	133.9	225.0
EBITDA margin	12%	16%
Core operating margin	7%	11%
ROIC	6%	10%

Portfolio changes

Our strategic focus

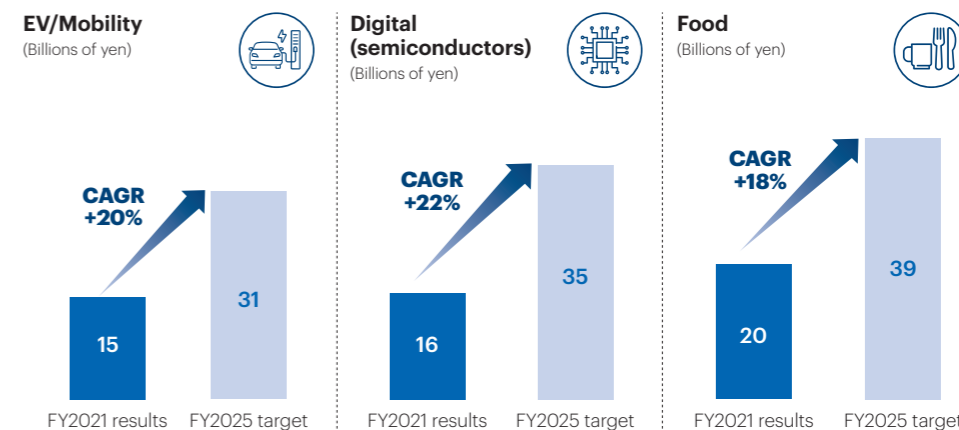
- EV/Mobility ■ Digital: Semiconductors ■ Digital: Electronics ■ Food
- Industrial, Medical, Consumer Goods, Building/Construction, etc. — Divestiture candidates



SWOT analysis

<p>Strengths</p> <p>S</p> <ul style="list-style-type: none"> • EV/Mobility High-performance engineering plastics: Global network of businesses capable of handling operations from plastic production to molding and processing Electrolytes: Ability to develop functional additives that create high-performance batteries • Digital EL chemicals: High-level purification and quality management technologies to monitor microscopic particulate contamination • Food High-performance films: Technological capability to add various functions to create gas-barrier, porous, and multilayer films, etc. 	<p>Weaknesses</p> <p>W</p> <ul style="list-style-type: none"> • EV/Mobility High-performance engineering plastics: Global economic and currency risks Electrolytes: Dependence of raw material supply chain on China • Digital EL chemicals: Supply concerns for raw materials • Food High-performance films: Concentrated mainly in the domestic market
<p>Opportunities</p> <p>O</p> <ul style="list-style-type: none"> • EV/Mobility High-performance engineering plastics: Rising demand for lighter materials Electrolytes: Rising demand driven by wider use of EVs • Digital EL chemicals: Rapid market expansion and demand for new materials due to semiconductor circuit miniaturization and multilayering • Food High-performance films: Rising demand in overseas markets 	<p>Threats</p> <p>T</p> <ul style="list-style-type: none"> • EV/Mobility High-performance engineering plastics: Shrinking market due to growing adoption of new technologies Electrolytes: Profit squeeze due to sharp rise in raw material prices • Digital EL chemicals: More local production for local consumption • Food High-performance films: Medium- and long-term decline in domestic demand

EBITDA targets



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Business Strategy

Specialty Materials




Strategic focus 1
Move from product-focused to market-oriented organization

Promoting the change to a market-oriented business

Among our focus markets, we expect particularly strong growth in the EV/Mobility, Digital, and Food markets. With our specialty materials lineup, we can offer multiple products plus the technological capabilities and skills to supply these markets. To grow our businesses at a rate commensurate with market growth, we will move from a product-focused to a market-oriented organization and grow our products globally.

Rather than taking individual products into specific markets as we have done thus far, we will move to an area-based organization that will allow us to leverage our entire product portfolio to reach customers.

Focus market growth and projected sales growth

EV/Mobility	Digital	Food
		
<ul style="list-style-type: none"> • Electrolytes • Fiber-reinforced plastics and composites 	<ul style="list-style-type: none"> • Semiconductor cleaning • Epoxy resin • Semiconductor equipment components 	<ul style="list-style-type: none"> • Emulsifiers • Packaging films and materials
Market growth*1 >14% per year	Market growth*1 >10% per year	Market growth*1 >7% per year
Projected sales growth*2 13% per year	Projected sales growth*2 7-11% per year	Projected sales growth*2 7% per year

*1 Addressable market growth rate in EV, battery, and mobility
*2 Sales growth rates until fiscal 2025 for selected target applications

Strategic focus 2
Grow existing products globally

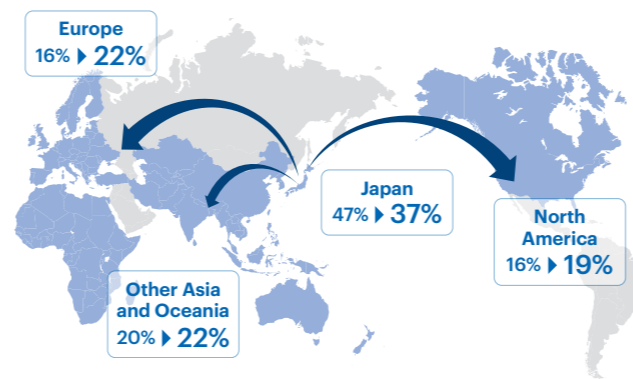
Making the entire product portfolio available globally

To foster growth in expanding overseas markets, we need to make our entire product portfolio available globally. To develop business in global markets, we will transfer significant authority to each region and develop locally based sales activities.

We will work closely with fast-growing customers around the world to grow our business and also promote key account management (one face to the customer).

Targets for global sales revenue share

Specialty materials sales revenue share
FY2021 ▶ FY2025



Strategic focus 3
Build leadership positions in sustainability areas

Further expanding our sustainability position

As we transform under the growth, performance, and sustainability pillar, we are achieving rapid growth through our sustainability brands. The MCG Group has a wide-ranging lineup of products valued for both their superior physical properties and their sustainability. We will further solidify our market position by growing sales of these sustainability brands.

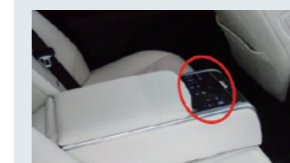
Some of the MCG Group's sustainability brands

Brand	Chemistry	Type		
		Bio-based route	Biodegradable	Recyclable
BioPBS	Polybutylene succinate	○	○	
DURABIO	Isosorbide-based polycarbonate	○		
SoarnoL	EVOH*1			○
Nichigo G-Polymer	BVOH*2		○	
GOHSENO	PVOH*3		○	

*1 Ethylene vinyl alcohol copolymer *2 Butenediol vinyl alcohol copolymer
*3 Polyvinyl alcohol

DURABIO—a truly innovative bio-based engineering plastic

- Bio-based engineering plastic that combines the advantageous properties of polycarbonate and those of PMMA
- Designed for applications requiring exceptional durable transparency and visual appearance



Example use
Green mobility interior
DURABIO used for the rear heater control panel of the new fuel cell EV MIRAI sold by Toyota Motor Corporation

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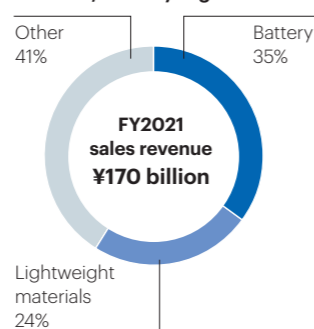
Specialty Materials

Product highlights

EV/Mobility product supply and electrolyte expansion strategy

Key products in the automotive market

Sales revenue by product in the EV/Mobility segment



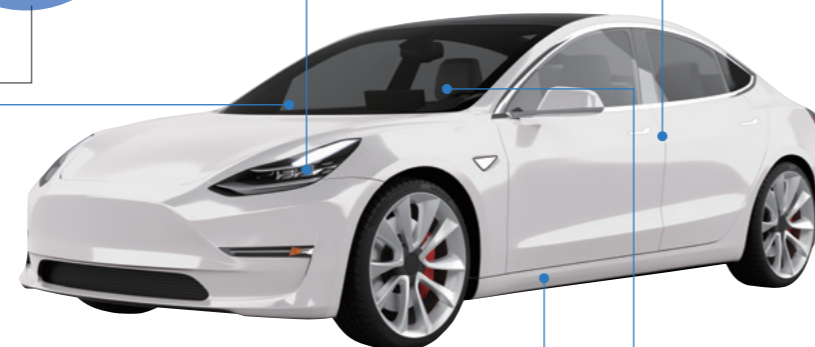
Engineering plastics

Wide-ranging business development, including PC*1 plastics used in headlamps and other components because of their superior heat resistance and shock resistance, and PBT*2 plastics used in electrical equipment components because of their superior electrical properties and chemical resistance

*1 Polycarbonate
*2 Polybutylene terephthalate

Carbon fiber composite materials (SMC)

Can be used to mold complex shapes in short time frames, realizing uptake of carbon fiber materials in mass produced vehicles



LiB materials

Lineup that includes not only electrolytes, but also materials to provide improved performance in the overall battery pack



Electrolytes

- High power output
- Durability, long life, high safety
- Control of side reactions at the electrode



Anode materials

- High capacity, long life
- Stable supply
- Materials with low environmental impact

Bio-based engineering plastics

DURABIO is a bio-based resin that features excellent transparency, durability, and shock resistance, making it suitable for use in interior and exterior components.



Thermoplastic elastomer for airbag covers

Superior strength at elevated temperatures and shock resistant at low temperatures, contributing to improved car safety



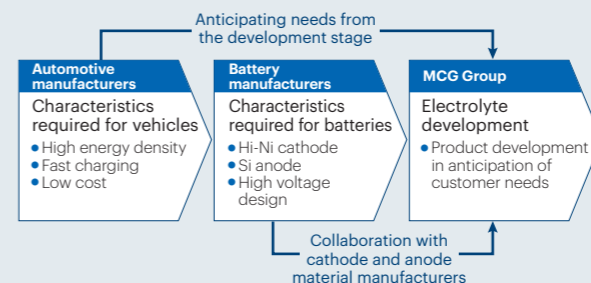
Electrolyte expansion strategy

The MCG Group's electrolytes for LiBs use proprietary additive technologies to suppress side reactions in the electrode, resulting in high power output performance. This, combined with the outstanding durability and high degree of safety of these electrolytes, means automotive applications are expanding. The MCG Group has production and sales sites in four countries, and is bolstering its production capacity in line with the expansion in demand for xEVs (electric vehicles). Furthermore, the Group is considering providing licenses and outsourcing production to accelerate growth.

Demand for LiBs is growing rapidly for automotive applications, particularly EVs, due to increasing awareness of environmental issues worldwide. The global market for automotive LiBs is projected to grow at nearly 30% per year. Automotive manufacturers in the United States are moving to local procurement of parts and materials, and we are also working to strengthen our supply chain. xEVs are taking off in emerging countries as well. For example, the Indian government has set out a policy for EVs to make up 30% of new passenger car sales by 2030. The country is seeking to attract technical support and companies from outside the country. The MCG Group aims to respond to this demand. In India, the Group is helping strengthen the supply system for LiB electrolytes by granting production technologies for electrolytes to Neogen Chemicals Limited, a chemical manufacturer in India with strengths in lithium-related products. The MCG Group has positioned EV/Mobility as a focus market. The Group plans to strengthen the global supply system and help realize a carbon-neutral society by providing products that contribute to reduced environmental impacts.

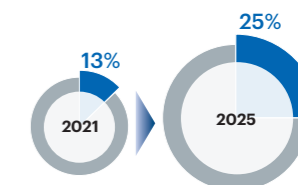
MCG Group strengths

- High-performance additives with a strong patent network
- Design capability to combine various raw materials to achieve the battery characteristics required by our customers
- Customer relations for capturing the innovation cycle



Breakdown of global electrolyte market share

- MCG Group
- Other competitors



Note: Including licenses and contract manufacturing

Aiming for growth of up to 25% of overall market share by 2025

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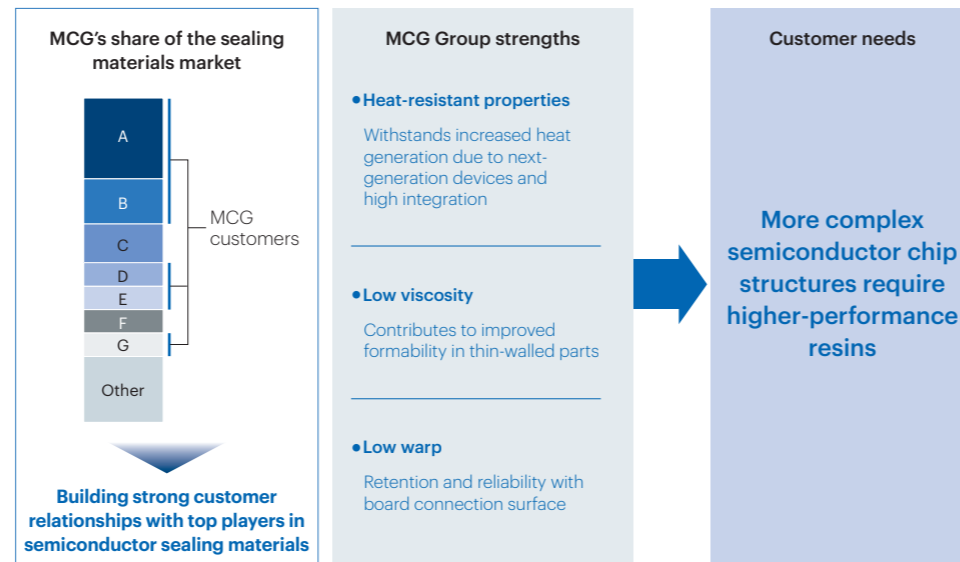
Product highlights

Digital: Epoxy resin expansion strategy

Epoxy resins are used for a variety of applications, such as paints, adhesives, and semiconductor sealing materials. MCG’s specialty epoxy resins have excellent properties, including high heat resistance, low melt viscosity, and low water absorption, and some of them have been adopted as the de facto standard worldwide for semiconductor sealing materials.

The semiconductor market is expected to continue growing rapidly. Previously, we manufactured epoxy resins at our Tokai Plant, but in April 2023 we started operations at a newly constructed production line in our Kyushu Plant to manufacture special epoxy resins for semiconductor sealing and electronic materials in order to satisfy strong demand in the semiconductor market and strengthen our supply capabilities. This new line increases our production capacity by around 30%. MCG will consider further enhancement of production capacity in the future to satisfy increasing demand.

Epoxy resins: High adaptability to cutting-edge IC trends maintains high market share



Food: SoarnoL expansion strategy

SoarnoL exhibits excellent gas-barrier properties and is used as a food packaging material to help preserve food flavor and quality and reduce food waste. Furthermore, our multilayer olefin film that contains the recycling aid Soaresin added to SoarnoL has been very well received for its recyclable properties.

Demand for SoarnoL is growing around the world in response to rising demand for environmentally friendly products, and we expect solid growth for SoarnoL in the future. To respond to this increase in demand, the MCG Group is building a new production line for SoarnoL at its U.K. plant. We expect this line to boost our production capacity by a further 21 kt per year. The new line is scheduled to start operations around fall 2025. For DIAMIRON food packaging film that uses SoarnoL, we are leveraging our technology and No. 1 track record in Japan to develop this business in Asian countries, particularly Thailand. The MCG Group has positioned Food as a strategic focus and aims to grow this business and contribute to sustainable food supply through the development and use of high-performance materials such as food packaging materials.

Food packaging materials: Leveraging our No. 1 track record in Japan for multilayer film to appeal to the food needs of Asian countries where demand is expected to increase

