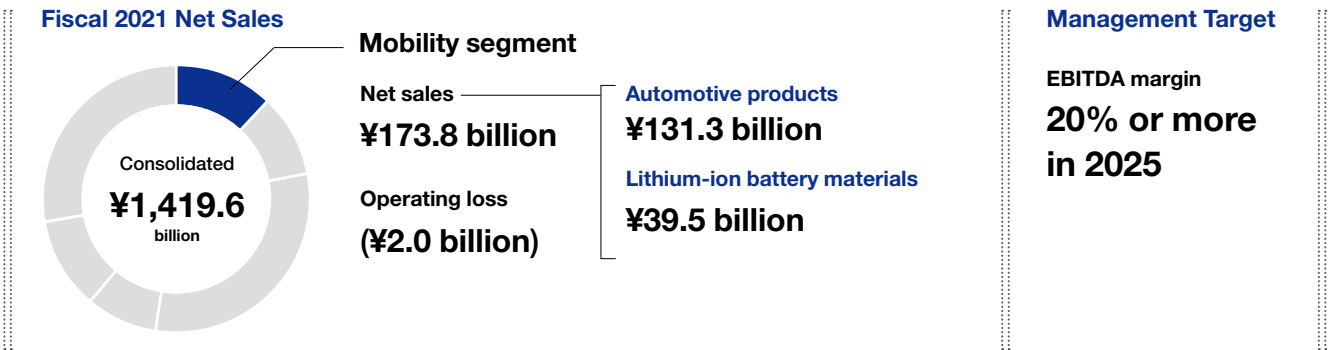




Mobility



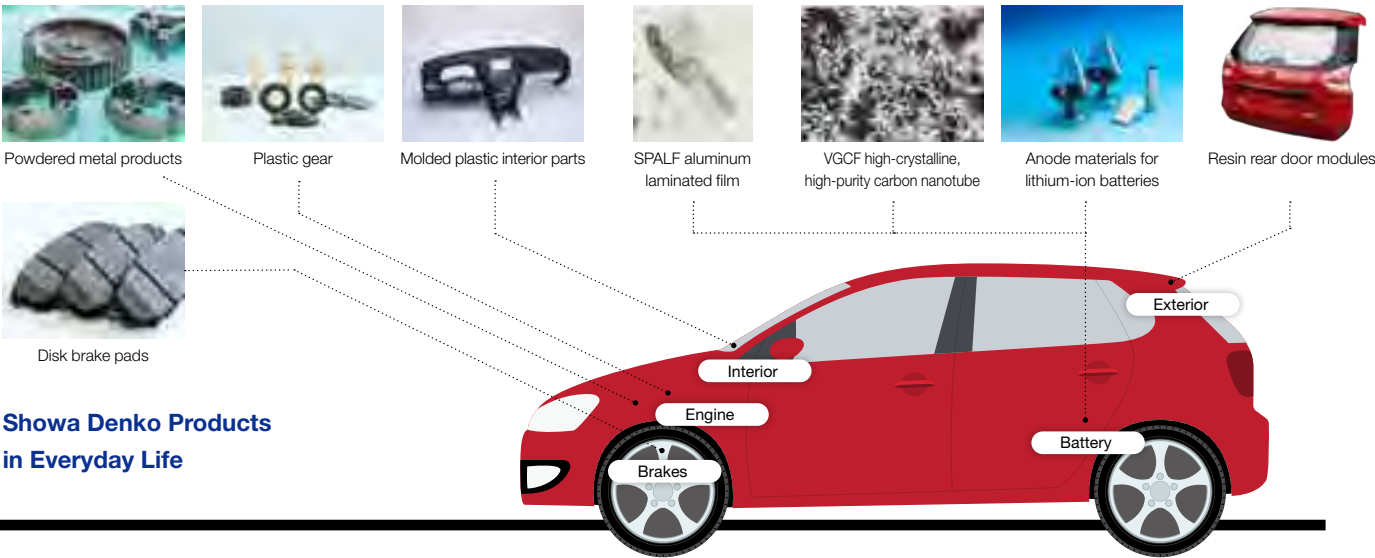
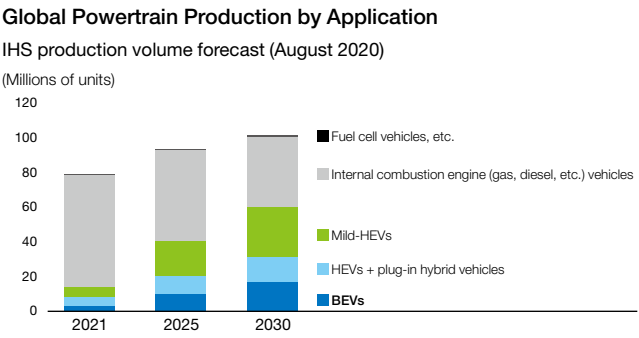
Strategy for Realizing the Long-Term Vision

The Mobility segment is positioning the rising technological needs associated with CASE (connected cars, autonomous/automated driving, shared, and electric) technologies, particularly those related to the development of electrified vehicles, as a business opportunity. To capitalize on this opportunity, the segment is implementing a growth strategy of developing its business while taking advantage of Showa Denko's weight reduction, electrification, and heat control technologies. Moreover, business growth will be pursued by incorporating market growth while positioning CASE-related needs as a key growth driver. The business portfolio of this segment will also be managed with the goal of increasing the ratio of sales from CASE-related products, which was approximately 50% in fiscal 2021, to 65% in fiscal 2025. We thereby aim to accomplish our target of an EBITDA margin of 20% or more.

	Results in 2021	Plan for 2022	Vision for the future (2030)
Automotive products	<ul style="list-style-type: none">Performance lower than initial forecasts, despite recovery in automobile production volume from the impacts of the COVID-19 pandemic in the first half of 2021, due to a decrease in automobile production caused by supply shortages for semiconductors in the second half of 2021Commencement of production of rear door modules and copper-free disk pads for 15 new automobile modelsEstablishment of a production base for rear door modules in Wuhan, China	<ul style="list-style-type: none">Higher sales and income, despite ongoing semiconductor shortages, due to the resumption of recovery trend projected in the second half of 2022Commencement of production of resin rear door modules, interior and exterior parts, and copper-free disk pads for new automobile models; reinforcement of supply chain management to fulfill supply responsibilitiesAggressive investment in products and technologies required for next-generation automobiles, including technologies for weight reduction, electrification, and heat control	<ul style="list-style-type: none">Top share acquired through aggressive investment as a Core Growth business targeting niche marketsEBITDA margin of 20% to be targeted as a Core Growth business
Lithium-ion battery materials	<ul style="list-style-type: none">Expansion of a range of models using Showa Denko anode materials for hybrid-electric vehicles (HEVs) and of related patentsEnhancement of capabilities of SPALF aluminum laminated film and conclusion of a large-scale sales agreement for VGCF conductive additive spanning the period from 2021 to 2022	<ul style="list-style-type: none">Acceleration of development of new anode materials to respond to rapid charging performance and other technical needs of next-generation EVsAcquisition of certification for high-end SPALF models and steady expansion of production capacity and construction of a resilient supply chain for SPALF and VGCF	<ul style="list-style-type: none">Target of net sales of ¥115.0 billion to be achieved by incorporating rising needs associated with the advancement of CASE technologies and pursuit of carbon neutrality

Competitive Edge

The mobility market is currently in a period of great change. To work toward carbon neutrality and address social issues, numerous countries have set CO₂ emissions reduction targets calling for reductions of 30% to 40% over the next decade. Such implementation of stricter environmental regulations is driving growth in demand for electric vehicles (EVs), and it has thus been estimated that EVs will increase to represent more than half of the cars on the road within 10 years. Restrictions are even being placed on electrified vehicles, as the European Union is slated to ban sales of HEVs after 2035. Showa Denko will thus be pursuing business growth by targeting battery-electric vehicles (BEVs), which will no doubt see growth over the long term.



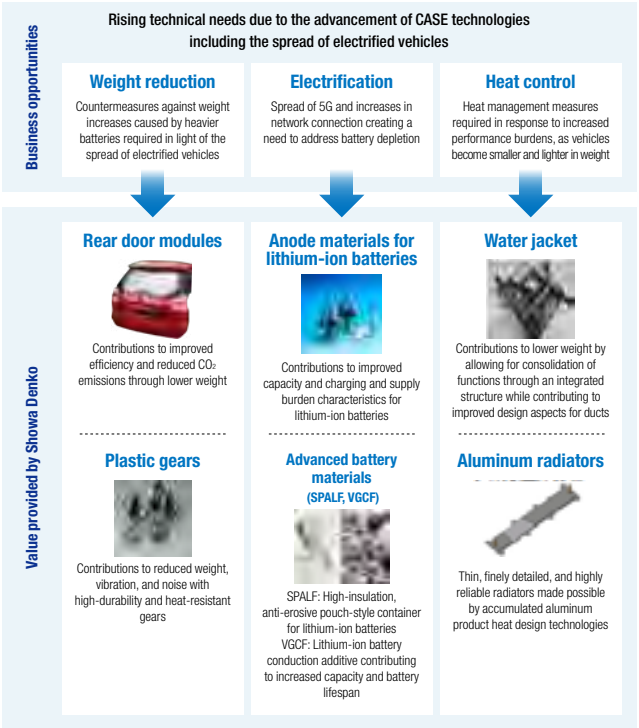
Showa Denko Products in Everyday Life

The Mobility segment aims to expand its business by addressing the needs of the automotive market while positioning CASE-related needs as a key growth driver. This will require us to respond to new technical needs. Accordingly, Showa Denko will be supplying a lineup of battery solutions to accommodate smaller, lighter-weight, and electrified vehicles; material solutions for controlling heat, sound, and electromagnetism; and module solutions that assist in system design tasks such as module development.

At the same time, we will be work to claim the top market share through aggressive investment focused on niche markets.

Specific measures will include the expansion of the range of existing customers' models for which our molded plastic exterior products are used as well as approaching new customers. Our main target in this endeavor will be market segments where we expect to see a strong need for reducing the weight of resin rear door modules while accommodating design concerns. As for composite materials, we will maintain our leading share for mainstay plastic gears while approaching new customers with various heat management products for electrified vehicles. In addition, we will develop a service model for advanced battery materials that satisfies customers' development needs while boosting the quality of SPALF in order to earn the top share in the mobility market.

Growth Strategy for the Mobility Business



Initiatives for Resolving Social Issues as a “Co-creative Chemical Company”

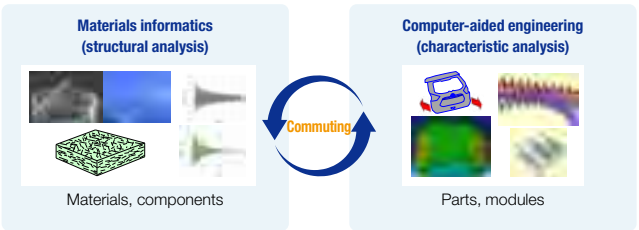
Reinforcement of Development Capabilities through Materials Informatics

Showa Denko faces the need to reinvent its development style. This need is arising in light of factors such as the shorter development lead times required as technical needs and values change in response to trends such as the advancement of CASE technologies and the pursuit of carbon neutrality. Meanwhile, major automobile manufacturers and suppliers are increasingly embracing model-based design, which entails simulating the terminal component functions and performance features necessary for overall automotive systems using virtual models. This design approach makes it possible to adopt a development style in which materials informatics is used to combine various materials selected from databases before computer-aided engineering methodologies are employed to perform analyses and thus conduct prototyping and testing in a virtual environment. Moreover, if we gained the ability to share data and model information with stakeholders, it would be possible to facilitate swift automobile development processes that seamlessly link the designing of materials, components, modules, and automotive systems.

We aim to create a unique model-based design development style by utilizing Companywide materials informatics technologies to

systematically digitize, organize, and compile the insight, experience, and manufacturing insight we have accumulated over our years of working with customers in the mobility field.

Going forward, we will continue to coordinate with automobile manufacturers and suppliers as well as with industry-academic-government research institutions to develop materials and manufacturing processes and to perform verification tests in local facilities. We thereby hope to continue supply materials, components, and parts that are useful to society.



Showa Denko's Intended Approach toward Model-Based Design