Featured Topic: Automotive Business Toward "Sumitomo Electric Group 2030 VISION"

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1. Introduction

The automotive business of Sumitomo Electric Industries, Ltd. has grown over a long period of time focusing on wiring harnesses (Fig. 1). Meanwhile, the automotive industry has been facing the challenge of a once-in-a-century revolutionary transition known as CASE (connected, autonomous, shared, and electric) innovation. The transition is not expected to be limited simply to introducing these elements of connection, automation, sharing/service, and electrification. It has the potential to change the position of cars in society and considerably transform the structure of the automotive industry.

Along with this trend, as conceivable from finished auto manufacturers (original equipment manufacturers [OEMs]) expressing their intent to evolve from being auto manufacturers to mobility companies, the business environment surrounding Sumitomo Electric's automotive business is also undergoing major change. While now is the time for us to cope with various changes, merely achieving results as an extension of conventional courses of action is not sufficient. An urgent task for us is to take measures to evolve our automotive business and enhance its profitability in line with "Sumitomo Electric Group 2030 VISION," viewing current changes as an opportunity for future-oriented sustainable growth.

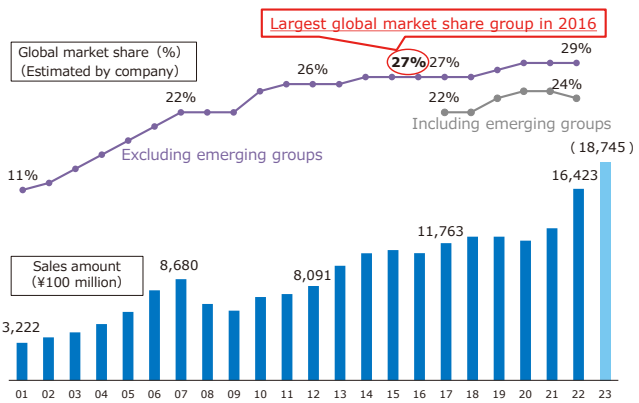

Fig. 1. Growth of our wire harness business

2. Transition from a Supplier to a Partner

To follow up with changes in the automotive industry and to lead the industry, the Automotive Business Unit has expressed its message that it will be able to expand the business of connectivity as a connecting mobility partner. The unit aims to develop and deploy new products and technologies that will provide new value to the market, taking advantage of the overall capacity of Sumitomo Electric, Sumitomo Wiring Systems, Ltd., and AutoNetworks Technologies, Ltd., as well as of synergy between the unit and parties within and outside the Sumitomo Electric Group. To that end, it is necessary to cross the boundaries of the business process of parts suppliers and to actively propose plans for improving the value of cars through Sumitomo Electric's technology and products. It is also necessary to strive to strengthen the partner relationships with OEMs on the basis of relationships built on trust.

It should be appropriate to touch on conventional general business relationships between OEMs and parts suppliers in order to clarify the concept transition from a supplier to a partner.

It is needless to mention that the automotive industry is an area that requires complex and advanced system-building technology. In many cases, the automotive industry conducts business-to-consumer (B2C) business in which its customers are general consumers. The OEM carries out most of the business process in-house. Its business strategies are highly flexible because the OEM itself plans and establishes profitability, resource strategy, production layout, and so on.

In contrast, what many parts suppliers do is merely take care of part of the OEM's business life cycle by, for example, supplying parts that meet the specified requirements. Their business model is substantially affected by the OEM's strategy, and the options that they can choose are limited. Consequently, toward the OEM and not toward

end users, they have highlighted the value added to their products naturally from a quality, cost, and delivery (QCD) perspective based on their technical capability. Opportunities for them to highlight by themselves the value added to their products toward the changing market have been limited.

In these circumstances, Sumitomo Electric, a leading wire harness supplier, has significant strength in that it has strong relationships built on trust with OEMs through years of business relationships and possesses wide-ranging advanced technical capability. However, we are unable to say that Sumitomo Electric has been taking the initiative to leverage its strengths, increase the value added to cars, and offer it to OEMs. Despite its core competence, Sumitomo Electric has had no opportunity to propose its own ideas about what cars should be like. This is probably the factor responsible for Sumitomo Electric's insufficient strength in making proposals from the perspective of automobiles. To take full advantage of its strengths in a new business environment in the era of CASE, it is critical to deepen the partner relationship with OEMs, demonstrate Sumitomo Electric's capacity to plan and make proposals by proactively participating in joint development projects, and take the initiative itself rather than relying on the OEM in these activities.

Being aware of these challenges, the Automotive Business Unit is promoting measures to cope with changes and enhance its business profitability in the future—in other words, measures to transition from a supplier to a partner. In the following section, I will describe research and development efforts to be made as the first step in coping with changes.

3. Enhancing the Research and Development Framework

The CAS-EV Development Promotion Division was newly established in April 2020 to conduct research on optimal wire harnesses and other products for electrification by integrating technologies throughout the company on the foundation of manufacturing capability built with the wire harness. The division primarily aimed to strengthen new research and development processes (collaboration with OEMs in development marketing and vehicle planning) needed in the future and to foster an atmosphere for synergy by widely collecting information on elementary techniques existing within and outside the company. This independent limited-time organization placed priority on increasing the speed in addressing challenges in response to the rapidly changing business environment.

During the three years since its establishment, the division created more than 50 new development themes utilizing partner relationships with OEMs and group synergy, primarily focusing on its key initiative areas of electrification, connectivity, and low-voltage wire harness (evolution). Due to these achievements, the division was reintegrated with AutoNetworks Technologies in October 2023 to develop into a new research and development framework promoting processes from development marketing to product development as a continuous process in collaboration with Sumitomo Electric and Sumitomo Wiring Systems (Fig. 2).

Our current priority initiatives are: 1) achievement of business goals for 2030 and 2) deepening partner relationships in line with customers' new initiatives. Regarding 1), project development scenarios are being built for each product category of connectivity, electrification, and conventional products in collaboration with the production and sales divisions. Regarding 2), in-depth discussions are ongoing with multiple OEMs on automotive structures and construction methods as well as on ways of working during vehicle development, and we are making proposals for the packaging of parts and systems with the aim of enhancing the value of cars, reducing development timelines, and improving the profitability of Sumitomo Electric's automotive business. Furthermore, we participate in the conceptual planning phase of next-generation vehicles with some OEMs, thereby steadily enhancing the partner relationships.

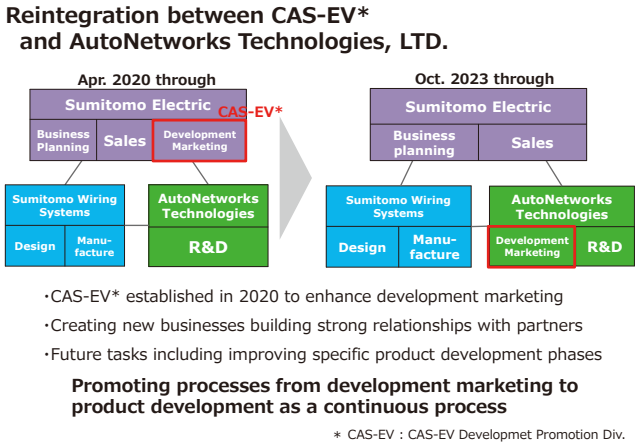

Fig. 2. New R&D framework

4. Toward "Sumitomo Electric Group 2030 VISION"

A current trend is that OEMs strongly expect us to consider the value of cars together with them from a partner standpoint toward a revolutionary transition to CASE. Sumitomo Electric desires to work on advanced systems in a new mobility society together with OEMs and lead the transformation of cars, focusing on connecting technology as its core competence and leveraging the synergy of the Sumitomo Electric Group's wide-ranging technologies in the areas of environment & energy, info communications, and advanced materials.

In the technology areas listed below, we are concentrating our efforts toward "2030 VISION" in line with industrial and OEM trends and the policies of the business unit.

- Linking mobility and energy
- Electrification components and peripheral/elementary parts
- High-speed communication technology/parts
- Wireless communication/power transfer technology

• Wire harnesses, elementary parts/materials
• Data engineering and evaluation techniques
• New raw materials/functional materials, etc.

These initiatives are presently intended and forecast to expand the automotive business by approximately ¥2,300 billion by 2030 (Fig. 3).

This issue presents almost all relevant technologies, although some topics have not been covered for release timing reasons. I would be pleased if you could go through them and provide us with your feedback.

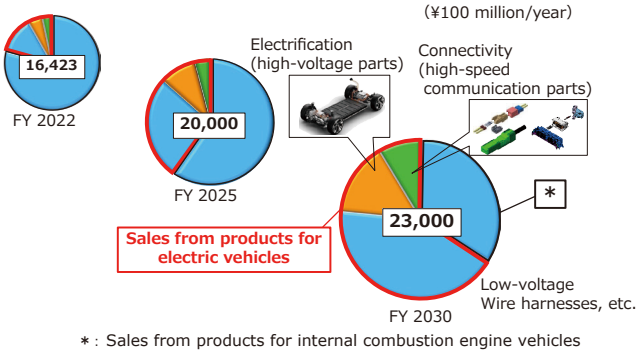

Fig. 3. Expansion of automotive business