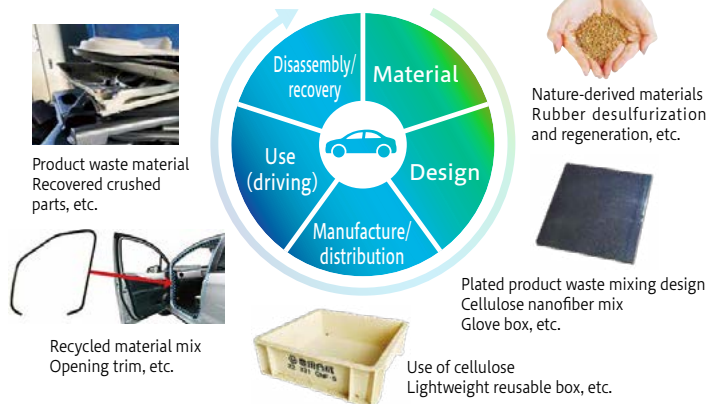


Four Development Targets

① Environmental Friendliness

Since BEVs have a higher environmental impact than gasoline-powered vehicles during the manufacturing stage, it is important to make life cycle assessments. As a manufacturer specializing in the polymer field, we aim to provide environmentally friendly products by improving their recyclability, expanding the application in our products of rubber regeneration technology, and developing the use of naturally derived materials. Products containing cellulose nanofibers are expected to reduce CO₂ emissions through both weight reduction and recyclability. We are also working on the practical application of natural rubber and vegan leather. Furthermore, we are striving to impart new value by using recycled materials, for example by using waste materials from plated products to achieve new surface designs.

Example of Lifecycle Assessment Efforts



② Extension of Cruising Range

Toyota Gosei is contributing to extended BEV cruising ranges mainly through heat management, weight reduction and aerodynamic design. We have brought together engineers from our functional component business to develop cooling systems (for example, piping and battery cases) that extract greater battery efficiency.

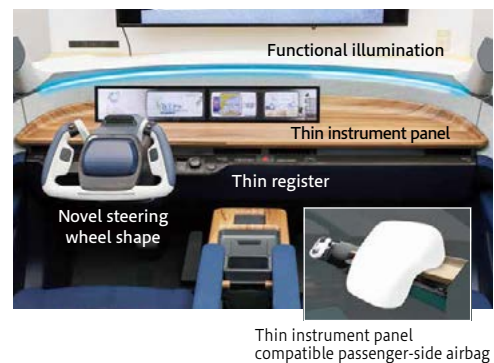
We utilize our materials technologies to replace metal with plastic, to make plastic and rubber products thinner by improving the material strength, and to make products lighter using our foam production engineering. In the exterior product field, seamless design with no openings is needed to improve aerodynamic performance. To achieve this design, we are differentiating our exterior products by enhancing their functionality, including decorative technologies that allow radio waves and light to pass through.



③ BEV-like Interior Space

The design trend for BEV interior spaces will be for forward-looking spaces that differ distinctly from gasoline-powered vehicles. We aim to achieve such forward-looking vehicle interior spaces through a combination of our strengths in interiors and safety systems. For example, we are developing airbags and registers that contribute to smart, thin instrument panels, and functional illumination such as driver notifications that use the entire cockpit including the steering wheel.

Our advanced steering wheels with a novel shape provide not only an ergonomic grip shape for comfortable steering, but also reflect airbag technology that ensures the same occupant restraint performance even with a steering wheel shape with vertical cutouts.



④ Safety Assurance

The increased strength of the parts around the battery with the shift to BEVs will affect how vehicle occupants are impacted during collisions. This will require better protection performance from the restraint system. Toyota Gosei ensures safety with high-performance airbags and internal pressure control technology. We are also developing systems together with Tokai Rika Co., Ltd. and Ashimori Industry Co., Ltd. to achieve optimal protection performance for each vehicle model through the combination of airbags and seatbelts. In addition, we are developing wrap around airbags that are integrated with seatbelts to ensure safety in response to future changes in cabin layout and occupant posture. Toyota Gosei will continue to provide safety and security to all while adapting to various vehicle changes in the future, with the ultimate aim of zero fatalities in traffic accidents.

