

Topic: Mid-Long Term Environmental Contribution

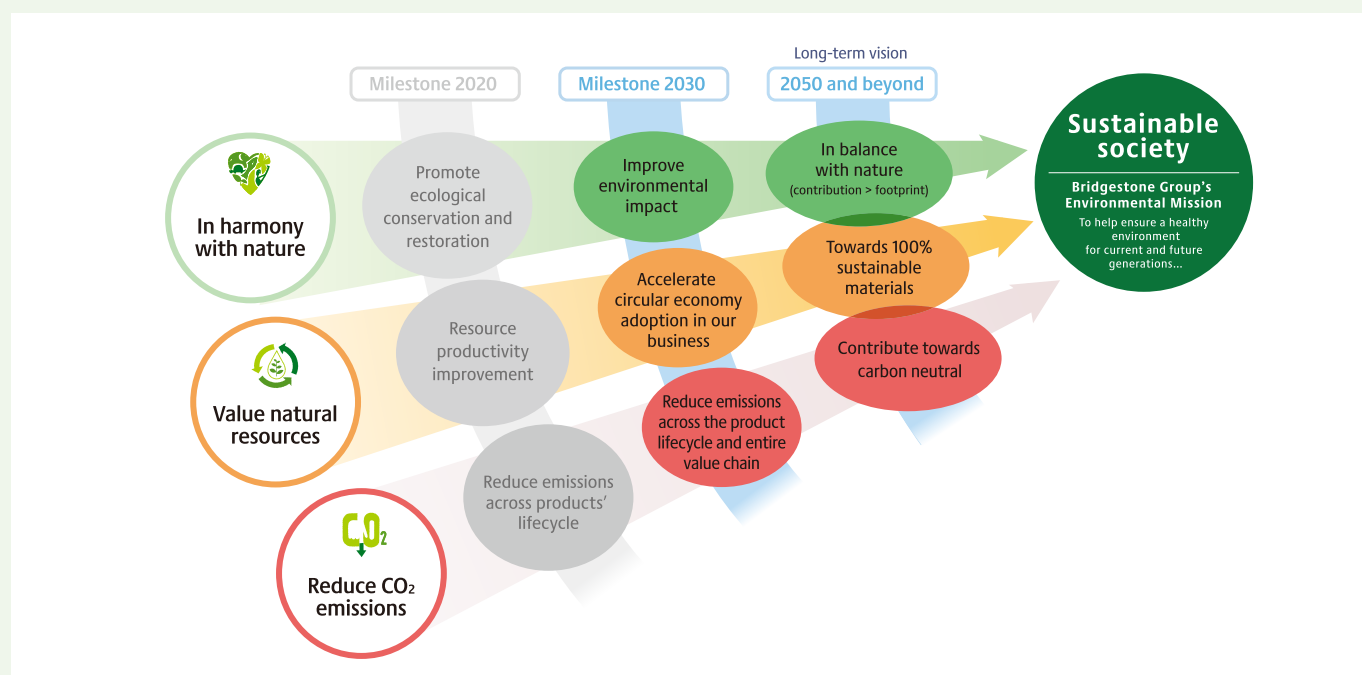
Long-Term Environmental Vision and Milestone 2030



The Bridgestone Group has placed sustainability at the core of its Mid-Long Term Business Strategy. It is taking on the challenge of realizing a sustainable business model that creates social and customer value, while also achieving competitive advantage.

For some time, the Bridgestone Group has been addressing environmental issues to realize a sustainable society, based on its unchanging desire to “To help ensure a healthy environment for current and future generations ...”, as stated in its Environmental Mission Statement. Its 2050 and beyond long-term environmental goals to achieve this mission include reducing CO₂ emissions to become carbon neutral. To best value natural resources, the Group also set a goal toward utilizing 100% sustainable materials¹ in manufacturing activities, contributing to the realization of a circular economy.

The Bridgestone Group achieved its Milestone 2020 goals set in 2012 ahead of schedule and formulated a new Milestone 2030.



Toward a sustainable society

To achieve Milestone 2030, the Bridgestone Group accelerated its ambition to decouple business growth from environmental impact and increased resource consumption. It is doing so by intensifying efforts toward carbon neutrality, increasing its contribution to a circular economy and reducing absolute CO₂ emissions by 50%². The Bridgestone Group also aims to contribute to the reduction of CO₂ emissions throughout its entire value chain, while at the same time creating customer value.

In 2020, the first year of Milestone 2030, the Group introduced new initiatives for achieving its long-term targets of operating in harmony with nature, valuing natural resources, and reducing CO₂ emissions.

Details of Milestone 2030 are available [online](#).

¹ The Bridgestone Group defines sustainable materials as those that 1) come from resources with a continual supply, 2) can be used as part of its business over the long term, and 3) have a low environmental and social impact over their lifecycle from procurement to disposal.

² Baseline year: 2011.

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Contribution to Carbon Neutrality

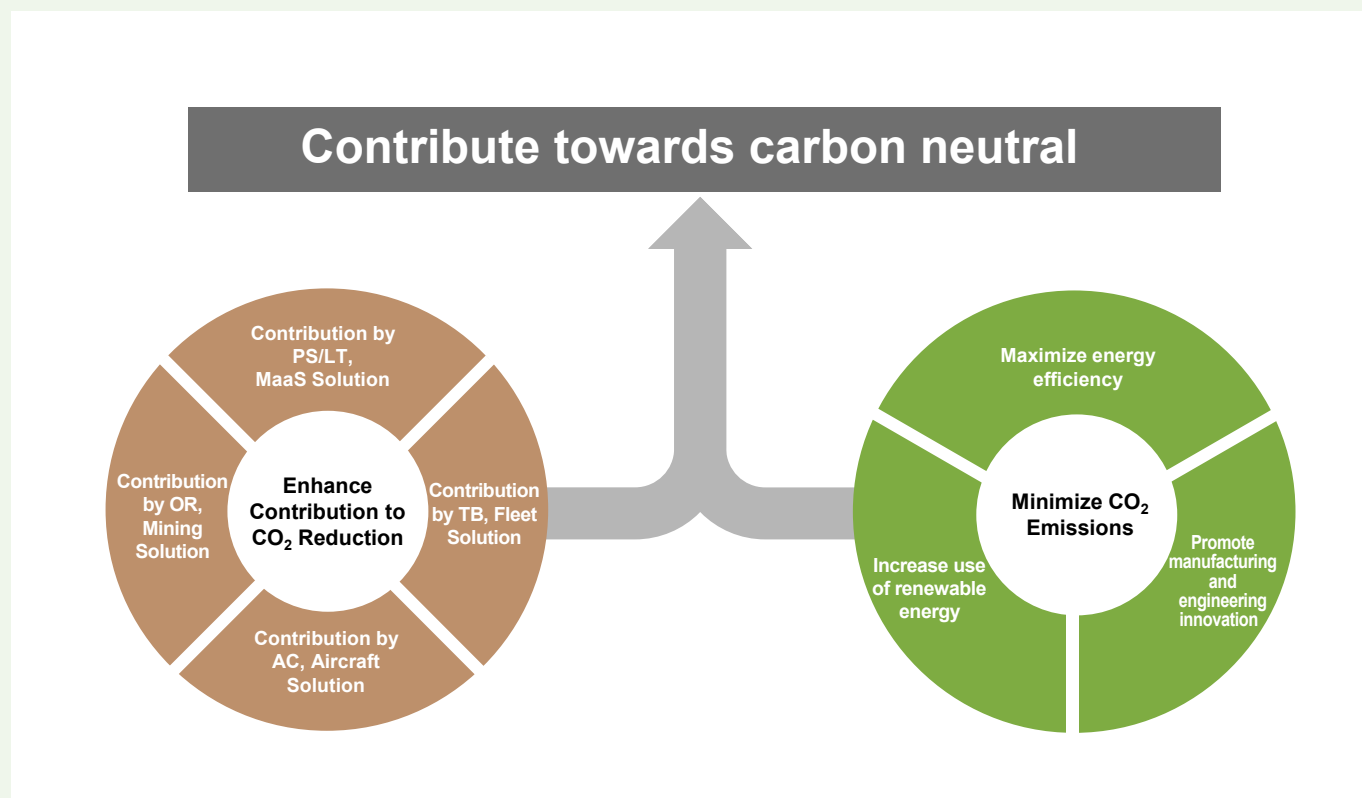
Reducing CO₂ emissions

The Bridgestone Group believes the demands of society and customers to reduce CO₂ emissions will continue to increase in the future, given the need to respond to climate change. Toward its goal of carbon neutrality for 2050 and beyond, the Group is working to both enhance its contribution to CO₂ reduction and to minimize CO₂ emissions.

Milestone 2030 sets targets for CO₂ emission reductions throughout the life cycle and value chain of the Bridgestone Group's products and services. To achieve these goals, it will not only reduce CO₂ emissions in production, but also contribute to the reduction of CO₂ emissions in the processes of customer use, raw-material procurement, distribution, reuse and recycling. Much of this work will be achieved by providing Dan-Totsu products and services that deliver increasing customer value. It also will strive to differentiate its business and strengthen its competitiveness by helping customers reduce their CO₂ emissions to become carbon neutral. Through these initiatives, the Group will contribute to the reduction of CO₂ emissions in society as a whole and aim to create social value together with customers and partners.

The Bridgestone Group has set a goal to contribute to global CO₂ emissions reductions across the lifecycle and value chain of its products and services that exceed by five times the CO₂ emissions from its operations by 2030¹. Across the entire life cycle of tires, emissions during product use account for about 90% of total CO₂ emissions². Therefore, the Group also will expand the range of products and services it provides that contribute to the reduction of CO₂ emitted during customer use. Some examples of this effort are its ECOPIA fuel-efficient tires; fuel-efficient tires equipped with ENLITEN, a new tire weight reduction technology; and transportation solutions, such as Webfleet Solutions business, a fleet management service that contributes to improved fuel efficiency and reduced CO₂ emissions by helping to streamline fleet operations.

Overall, the Group set an absolute reduction target for its own CO₂ emissions to become carbon neutral by 2050, in line with the [Paris Agreement](#) and other societal commitments.



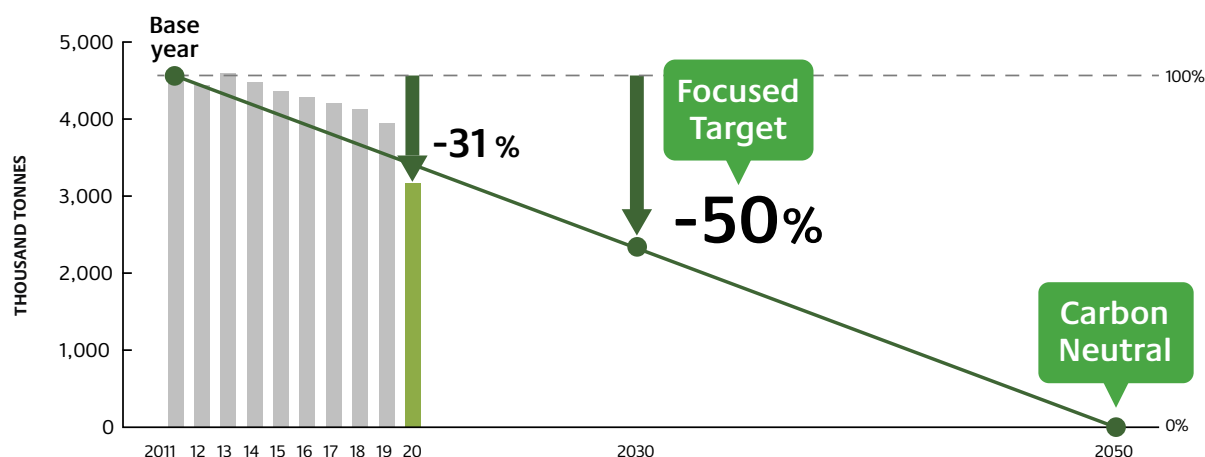
¹ Baseline year: 2020.

² Source: "Tyre LCCO₂ Calculation Guidelines Ver. 2.0", Japan Automobile Tyre Manufacturers Association, Inc.

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Contribution to Carbon Neutrality

CO₂ emission (Scope 1, 2) reduction target in manufacturing



In addition to innovating new products and services, the Bridgestone Group is finding other ways to achieve its Milestone 2030 goals by reducing absolute CO₂ emissions by 50%³.

One of these approaches is strengthening efforts to introduce renewable energy across the operation. As a result, in 2020, CO₂ emissions were reduced by 31%, compared to 2011, due in large part to the impact of the decrease in production volume caused by the COVID-19 pandemic.

Although the production volume is expected to increase in the Mid Term Business Plan, the Group will further accelerate its global efforts while minimizing the impact of the recovery of production volume on CO₂ emissions by setting the target of reducing CO₂ emissions in 2023 by 30% or more compared to 2011.

Energy efficiency improvement

The Bridgestone Group also has been working to reduce CO₂ emissions from product lifecycle stages other than use. It has continued to reduce the amount of raw materials used per product through weight reductions and minimizing production losses. In 2020, the Group reduced those CO₂ emissions per unit of sales by 37% compared to its 2005 level.

Additionally, the Group has implemented energy-saving measures such as visualization of energy usage, identification of energy losses, introduced high-efficiency equipment, and undertaken other measures to reduce energy loss. Milestone 2030 sets a standard of 0.5% energy-efficiency improvement per year. The Group will continue to promote activities to achieve this goal.

Expanded use of renewable energy

This use of renewable energy as part of the Bridgestone Group's initiatives to become carbon neutral has been in place for several years. The Group is now using renewable energy in the U.S., launching a new 2 megawatt (MW) large-scale solar power generation system at the passenger and light truck tire plant in Aiken, South Carolina in 2020. Through these efforts, the Bridgestone Group's renewable energy ratio (electricity) reached 11% in 2020. It will continue to expand the use of renewable energy and addresses its aim to increase this ratio to more than 50% by 2023 in the Mid Term Business Plan.



Aiken County, South Carolina passenger/light truck tire plant

³ Baseline year: 2011.

In particular, measures to introduce renewable energy in Europe have taken significant steps forward. In 2018, BSEMIA switched 100% of its electricity to renewable energy at four plants in Spain. In 2020, five more plants in Poland, Hungary, Belgium and the U.K. switched to renewable energy, as well as a plant in Italy in 2021. This completes the transition of electricity use to 100% renewable energy at all tire plants producing new tires in Europe.

In addition, BSEMIA is promoting the attainment of ISO 50001 certification and focusing on enhancing energy management by achieving certification for all its tire plants in Europe by 2020.



A MESSAGE FROM

Laurent Dartoux

Vice President and Senior Officer of Bridgestone Corporation
BSEMIA Management Board Chair, CEO and President

Working to achieve a carbon neutral state by 2050 is one of our long-term sustainability ambitions, but it's not our only goal within CO₂ reduction.

In fact, what's key to achieving a macro aim like this is targeting short- and mid-term goals on the road to 2050 — like we have done internally with Milestones 2020 and 2030 — and aligning ourselves with external objectives, such as the Paris Agreement and the sustainability ambitions of our customers and original equipment manufacturer (OEM) partners.

We have adopted a holistic, end-to-end approach in our efforts to cut carbon emissions across our entire value chain, which begins with the sourcing of our raw material and our manufacturing and production. We're proud to say in 2021 that 100% of the electricity we consume in our European locations is from renewable energy sources and all of our European tyre plants are ISO 50001 certified.

We're very aware that delivering against our ambitions requires constant investment and improvement: set for completion in 2022, our Burgos plant in Spain is constructing one of the country's biggest photovoltaic solar panel roof installations.

These are two concrete examples of decisions already

made on our way to carbon neutrality. But we've also pioneered best-in-class, fuel-efficient tyres, tyre-centric solutions and mobility solutions, innovating new materials and technologies that are specifically designed to cut carbon emissions. Tyres made with our ENLITEN Technology, for example, decrease fuel consumption and CO₂ emissions; our digital fleet management solution, WEBFLEET, reduces fuel consumption and associated CO₂ emissions by up to 25%; co-developed with ARLANXEO and Solvay, our TECHSYN tyre technology platform creates tyres with a rolling resistance reduced by up to 6%.

Partnership is key if we're to successfully shape a future of sustainable mobility; no single person or company can answer the huge challenges we collectively face. We must unite forces and bring our assets together to accelerate the pace of change. TECHSYN would not have been possible without ARLANXEO and Solvay, just like the electric future won't be possible without established leading OEMs, and innovative newcomers such as Lightyear solar.

For us, constant improvement means rethinking how we've traditionally done things with a strong sense of urgency and the end goal front of mind: carbon neutrality across the value chain and product life cycle no later than 2050.

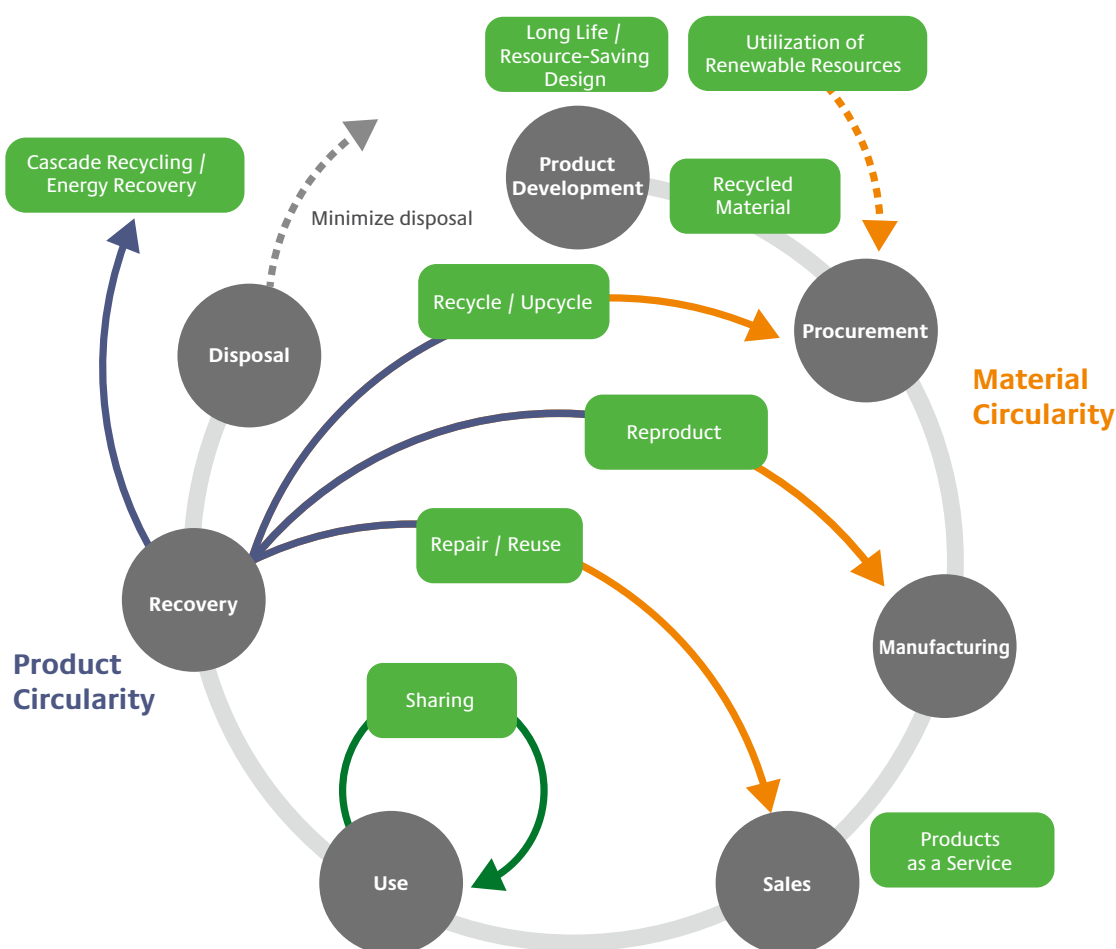
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Contribution to a Circular Economy

As part of Milestone 2030, the Bridgestone Group will work toward contributing to a circular economy.

A circular economy not only helps mitigate pressures on the environment, it also provides an opportunity to transform the Group's business model to increase the business value of tires and gain competitive advantage by using resources more wisely and sustainably. To this end, the Group is integrating circular economy concepts into its Sustainability Business Model. It also is making comprehensive efforts to contribute to the attainment of the identified four social and customer values of safety, environment, economy and productivity (see pages [23-24](#)).

Bridgestone Group's approach to contributing to the circular economy

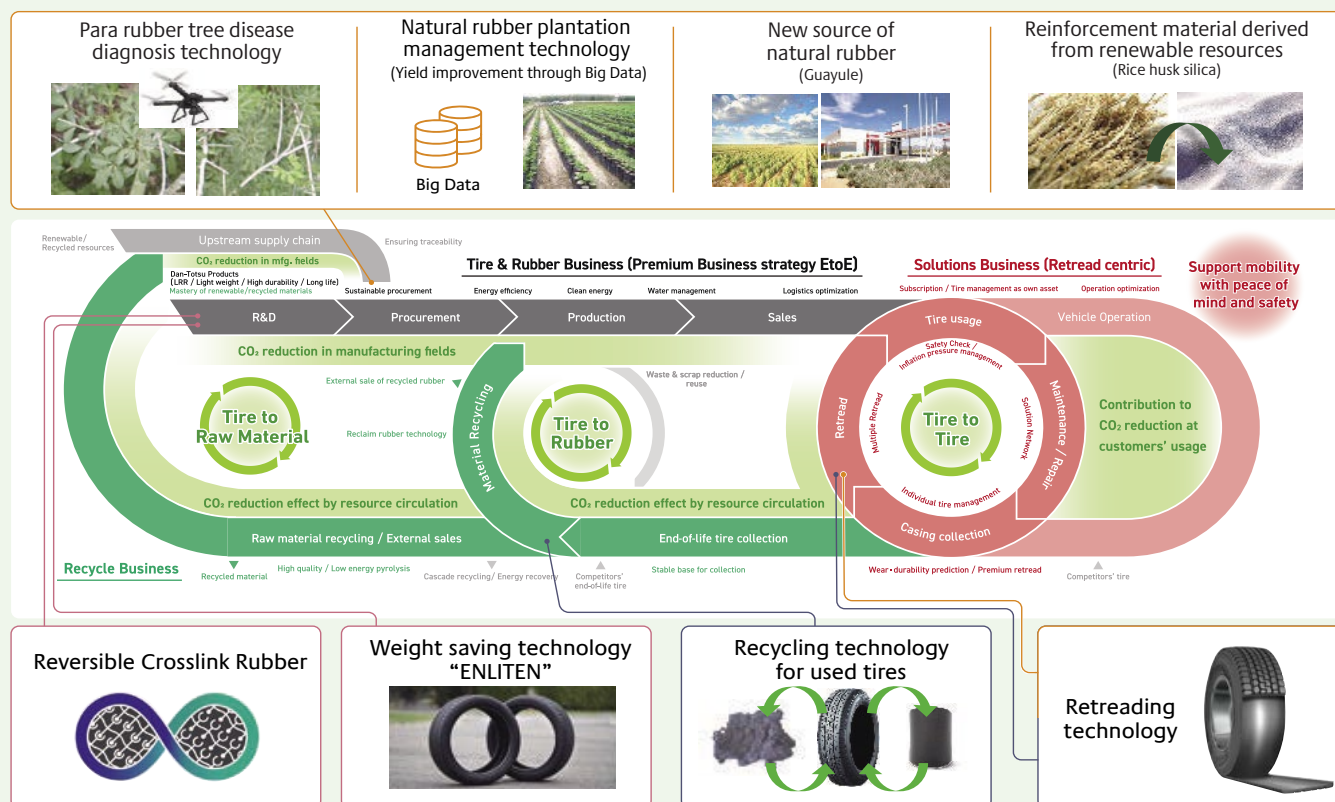


To contribute to a circular economy, the Bridgestone Group is working on three approaches to realize its Sustainability Business Model.

- Enhancement of resource productivity: Create opportunities by introducing new business models. These include Dan-Totsu products with long-life and resource-saving designs epitomized by the new tire weight reduction technology, ENLITEN, as well as services and subscriptions.
- Enhancement of material circularity¹: Further strengthen the competitiveness of Dan-Totsu products by utilizing recycled and renewable resources. Currently, the Group

is expanding the use of recycled raw materials, such as recycled rubber and recovered carbon black, to improve the productivity of natural rubber and develop bio-derived raw materials. For example, in 2020, it developed a highly precise disease-diagnosis technology for Hevea Brasiliense rubber trees, using artificial intelligence and big data to help improve the productivity of natural rubber.

- Enhancement of product circularity²: Expand business models that create value throughout the product lifecycle, such as the retread business and aircraft solutions, and also consider new value creation in the recycle business (see [page 39](#)).



TIRE RETREADING CONTRIBUTES TO A CIRCULAR ECONOMY

Retreading, which reuses tire casings by replacing the treads of worn tires, reduces the amount of newly added raw materials used to less than one-third that of new tires. It also reduces the amount of scrap tires since other tire components can be reused as well. This growth business opportunity is an example of how the Bridgestone Group is investing in new business models that balance environmental sustainability with customer safety, economy and productivity.

¹ A concept that indicates the circularity of raw materials. The Bridgestone Group uses the percentage of raw materials used that are recycled or derived from renewable resources as an indicator.

² A concept that indicates the circularity of used products. The Bridgestone Group uses the ratio of used tires from its retail shops that go to beneficial next use as the indicator.