

Sustainability Business Model

Bridgestone E8 Commitment

Energy Ecology

Evolution of the Group's Sustainability Business Model

Further Evolution of the Group's Unique Model Integrating Sustainability and Business

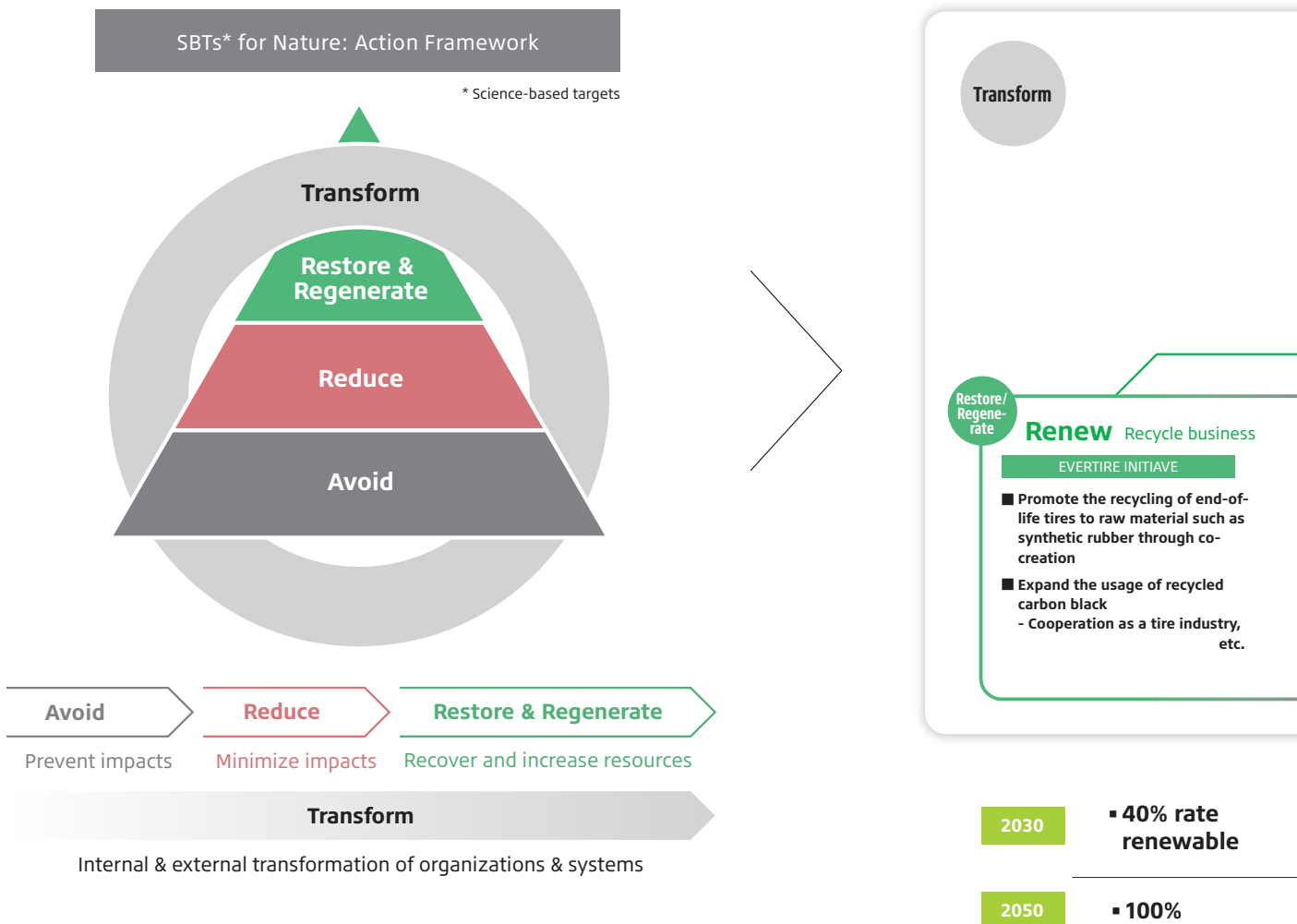
Over the years, the Group has shown a commitment to living in harmony with nature, based on its Environmental Mission Statement, which was refined in 2011. The Group has been implementing initiatives to achieve its vision of "living in harmony with nature" in order to reduce CO₂ emissions and tackle the urgent issue of global warming through technology development aimed at valuing natural resources.

In 2020, the Group announced its sustainability business framework and is working to establish a unique Sustainability Business Model that links its business with efforts to realize carbon neutrality and a circular economy

across the value chain, from the "produce and sell" and "use" of products to their "renewal" to raw materials.

In 2023, the Group will evolve its Sustainability Business Model and transform it to a regenerative business model in line with the concepts of the science-based targets (SBTs) for nature action framework, namely, to avoid actions that harm the environment, reduce impact on nature to the greatest extent possible, contribute to the restoration and regeneration of the environment, and fundamentally transform systems. This evolution will help to achieve a nature-positive world where the Group can help stop and reverse the loss of natural ecosystems.

In the "produce and sell" phase, the Group is promoting carbon neutrality by enhancing introduction of renewable

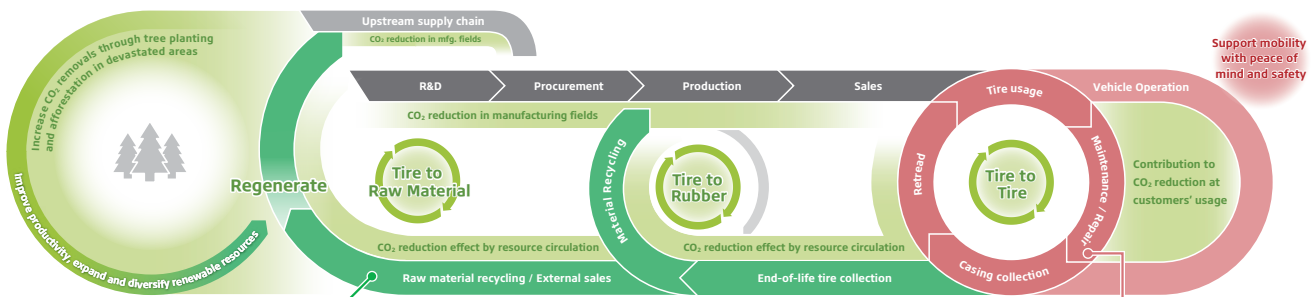


energy on a global basis. Toward realizing a circular economy, the Group is strengthening the development of materials, enhancing the natural rubber business, and promoting the guayule business, with the aim of increasing the proportion of recycled and renewable resources in its products.

In the tire "use" phase, the Group is expanding its solutions business that allows customers to use tires safer, longer, better, and more efficiently. As a leading example, the Group is establishing a circular business model that maximizes the value of tires by combining and providing new tires, proper maintenance services, and retreads that replace the tread after tire use.

In the "renew" phase, the Group has started initiatives to restore and regenerate resources through the recycle

business, renewing tires to rubber and other raw materials. The Group launched the EVERTIRE INITIATIVE in 2022 to promote tire recycling. Through this, the Group aims to accelerate the social implementation of technologies and systems toward achieving a sustainable future where recycled tires are the standard.



Avoid		Produce and sell		Reduce	
		Premium tire business		Solutions business	
Development & procurement aligned with product strategy		Produce		Use	
<ul style="list-style-type: none"> Material development to improve recycled & renewable material ratio Guayule business <ul style="list-style-type: none"> Diversification of natural rubber sources Can be grown in arid zones with little water. Contribute to tree planting and afforestation in devastated areas Sustainable procurement activity: Reinforce supplier engagement 	<ul style="list-style-type: none"> Natural rubber business <ul style="list-style-type: none"> Introduce elite trees that grow fast Own company plantations and support small-scale farmers Certified ISO 14001 at Liberia plantation 	<ul style="list-style-type: none"> Increase the ratio of renewable energy (electricity), promote shift to Green & Smart factories Valuing water resources: Water Stewardship Policy 	<ul style="list-style-type: none"> "New Premium" ENLITEN business strategy 	<ul style="list-style-type: none"> Promote actions for TRWP (Enhance long-life products, link with solutions) Retread Truck & bus / mining / aviation solutions 	<p>* TRWP=Tire & Road Wear Particles</p>

of materials using recycled and resources

- 50% reduction in CO₂ emissions (Scope 1, 2) from 2011 level
- Contribute to reducing CO₂ (Scope 3) more than 5x our emissions

sustainable materials

Carbon neutrality*

*Achieving carbon neutrality for Scope 1, 2, and contributing toward carbon neutrality in Scope 3

“Produce and Sell”

With the aim of establishing the Sustainability Business Model, the Group focuses on realizing carbon neutrality and a circular economy.

Initiatives toward Carbon Neutrality

The Group has set clear targets for reducing its total CO₂ emissions (Scope 1 and 2) by 50% compared with 2011 by 2030, and to realize carbon neutrality by 2050. The Group achieved an approximately 30% reduction in 2022. The plan for 2023 is to reduce CO₂ emissions by over 30% compared with 2011.

The Group has also set a clear target to reduce Scope 3 CO₂ emissions by more than five times its own emissions. In order to achieve this target, the Group is improving tire rolling resistance and making proposals for efficient vehicle operation in mobility solutions. The Group is also reinforcing engagement with suppliers.

» Reinforcing the Introduction of Renewable Energy (Electricity)

To achieve its targets, the Group is installing solar panels at its plants around the world as well as transitioning electricity purchased from external sources to power sourced from renewable energy. The Group's renewable energy (electricity) ratio was 26% in 2022, and is expected to reach 50% by 2023 and 100% by 2030.

» Obtention of SBT Certification

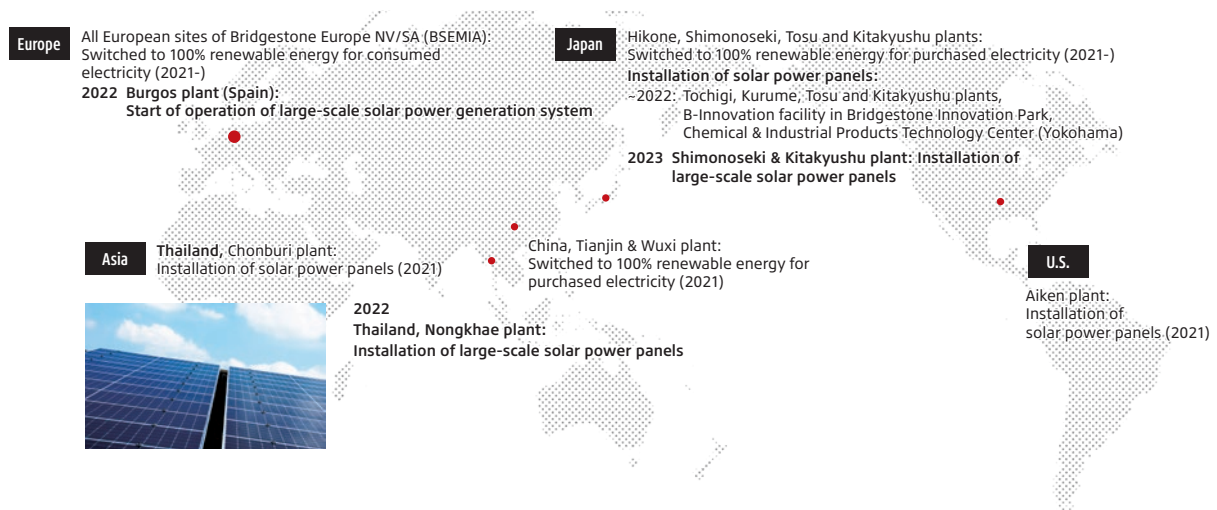
We have obtained Science Based Targets (SBT) certification from the SBT initiative (SBTi) concerning our CO₂ reduction targets for 2030. Science-based targets refer to reduction targets for greenhouse gas emissions set by companies for the next 5 to 10 years that are aligned with the goals of the Paris Agreement. The recent certification covered our mid-term CO₂ reduction targets for 2030 (Scope 1, 2, and 3).

In addition, the Group obtained an A- rank or above in the CDP* index for the seventh year in a row as a company that implements superior initiatives for climate change.

* CDP is an international nongovernmental organization that collects and discloses environmental information related to companies and cities. Based on the requests of institutional investors, companies, and other organizations, the CDP encourages organizations to disclose information regarding climate change, greenhouse gas emissions, water management, and other environmental concerns and also investigates and evaluates such organizations.



● Reinforcing the Introduction of Renewable Energy (Electricity) Globally toward the Realization of Carbon Neutrality



Initiatives toward Realization of a Circular Economy

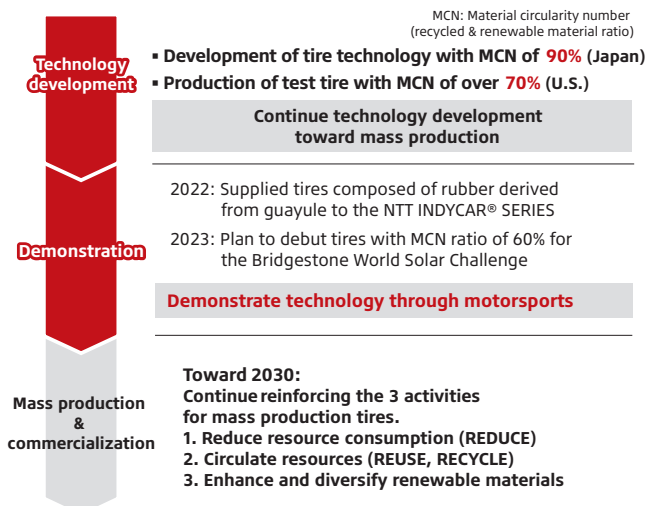
Toward the realization of a circular economy, the Group has set clear targets to achieve 100% sustainable material use by 2050, and a 40% recycled and renewable material ratio by 2030. To achieve these targets, the Group is reinforcing initiatives in alignment with product strategy and retreading. The Group achieved a recycled and renewable material ratio of approximately 38% in 2022 and will continue to improve it further in 2023.

» Development of Tires Using Recycled and Renewable Materials

The Group is developing technologies for mass production of tires using recycled and renewable materials. In Japan, the Group is driving development for production of tires made with 90% recycled and renewable materials or MCN (Material Circularity Number) for certain motorsports tires and passenger car manufacturers. In the United States, the Group has already succeeded with the production of test tires made with 70% recycled and renewable materials.

In the world of motorsports, where maximum performance is required under extreme conditions, race tires made with guayule-derived natural rubber, which has expectations as a substitute for natural rubber from the para rubber tree, are being employed in the NTT INDYCAR® SERIES. This means that the tires are being verified at the very forefront of the industry. In 2023, the Group intends to introduce tires made with 60% recycled and renewable materials for the Bridgestone World Solar Challenge and continue to develop new technologies to drive further innovation.

• Development of Tires Using Recycled and Renewable Materials



» Guayule Business to Diversify the Supply of Natural Rubber

The Group will also strengthen its guayule business to diversify natural rubber supply sources. Unlike the para rubber tree, where cultivation is geographically concentrated and subject to disease and climate change, guayule can be grown in arid regions, making it a viable alternative to natural rubber. Cultivating guayule also has the added benefit of greening these arid regions.



» Natural Rubber Business: Building a Supply System for Sustainable Renewable Resources and Planting New Trees on Devastated Land

The Group owns and operates natural rubber plantations in Liberia and in Sumatra and Kalimantan in Indonesia. It is actively working toward the establishment of sustainable rubber plantations throughout the industry. In Liberia, our plantation business has been in operation for over 90 years since the period when Firestone owned it before the merger with Bridgestone, and we make efforts to contribute to the local community. At the two locations in Indonesia, the Group has made investments in the reforestation of elite trees with fast growth rates and stable yields.

The Group's three natural rubber plantations maintain approximately 5.9 million tons of fixed CO₂. The Group will contribute to the realization of carbon neutrality by expanding the volume of absorbed and fixed CO₂ through new planting initiatives in devastated areas. In addition, the Group is building a supply system for sustainable renewable resources that supports the premium tire business and Dan-Totsu products as part of its efforts to achieve a circular economy.

Tire "Use" Phase

Even in the tire "use" phase, the Group is working to realize carbon neutrality and a circular economy. In its tire-centric solutions, the Group is establishing a circular business model that links ENLITEN, which is the "new premium in the circular business era", with retreading to maximize tire value by fully using each tire asset until the end of its life. This integrated approach also improves resource productivity and reduces CO₂ emissions.

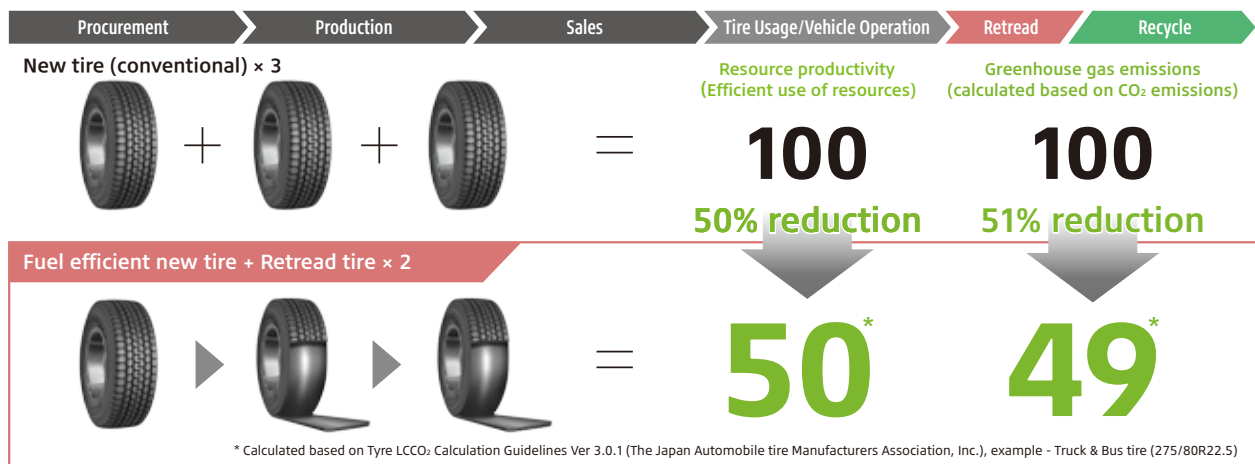
The Group has set a target of reducing CO₂ emissions across the lifecycle and value chain of its products, services, and solutions (Scope 3) by more than five times the amount of CO₂ emitted by its operations (Scope 1 and 2) by 2030, with 2020 used as the baseline year. In 2022, the Group was able to achieve a 0.95x reduction contribution, which was a significant improvement from 0.5x in 2021.

» Environmental Contribution through Retreads

Retreading contributes to improved resource productivity and reduced CO₂ emissions. Assuming that each customer will use Bridgestone tires three times, using one set of Bridgestone's new low rolling resistance tires and then retreading them twice, rather than using three sets of new tires, can reduce the amount of raw materials used and CO₂ emissions generated by half over the entire life cycle, excluding the "use" phase.

The Group will continue to accelerate its efforts to reduce CO₂ in society together with its customers and business partners.

• Environmental Contribution across the Lifecycle of Tires



“Renew” Tires to Raw Material Phase

» EVERTIRE INITIATIVE: Recycle Business

Create a Society Where Tire Value Circulates

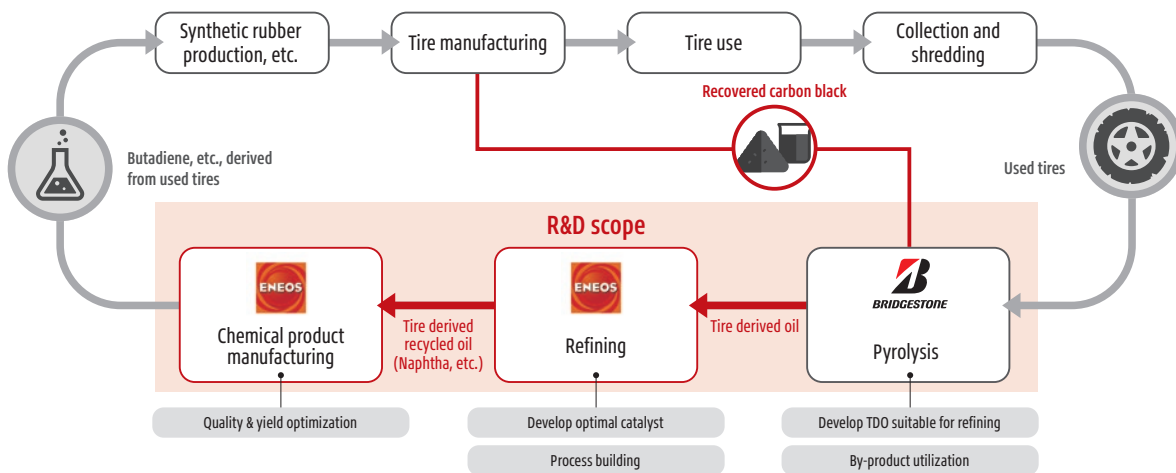
The Group’s recycle business is positioned to play a vital role in Bridgestone’s unique Sustainability Business Model by “renewing” tires to rubber and other raw materials, which represents initiatives to “restore and regenerate”. The Group is currently exploring technologies and business models with the aim of commercializing this business by 2030. As a leader in the tire and rubber industry, the Group launched the “EVERTIRE INITIATIVE” in 2022 to call for co-creation toward tire recycling, even outside the industry. The Group has started various co-creation projects with different partners to realize a circular economy where tire value continue to “circulate” by considering end-of-life tires as a resource and “renewing” them to raw materials.

The Group is engaged in a co-creation project with ENEOS Corporation, which involves precise pyrolysis of end-of-life tires to produce butadiene and recovered carbon black, which are raw materials for tires. This project is one of two research

and development projects under the initiative called “developing chemical product manufacturing technologies utilizing used tires” promoted by the New Energy and Industrial Technology Development Organization (NEDO) of Japan and adopted as part of NEDO’s Green Innovation Fund. Work began in 2021, and the Group has already started pyrolysis tests using demonstration equipment. Going forward, large-scale demonstrations are planned with the expectation of starting mass production by 2030.

Additionally, the Group is promoting various joint projects globally such as an initiative with LanzaTech NZ, Inc. in the United States that aims to produce chemicals and raw materials for tires by applying LanzaTech’s gas fermentation process to end-of-life tires. As a leader in the tire and rubber industry, the Group will continue to take on the challenge of leaving a better environment for future generations.

• Co-creation Project with ENEOS Corporation



» EVERTIRE INITIATIVE—Aiming to Realize a Future Where Recycled Tires Are the Standard



The co-creation project of Bridgestone and ENEOS Corporation for chemical recycling of end-of-life tires is also a national project to solve social issues toward the realization of a sustainable society. The project still needs to overcome some difficult technical and business challenges in order to commercialize recycling. However, together with co-creation partners who share our mindset, we will continue to take on the challenge of creating a future where recycled tires are the standard, as set forth in the EVERTIRE INITIATIVE.

Yuri Hashimoto
Recycle Business Preparation office

