## Contributing to the Environment through Manufacturing

As a manufacturer, reducing the environmental impact at every stage of the manufacturing process is a top priority. We are therefore working in all kinds of ways to make our products environmentally sound by FY2017, beginning with the design of environmentally friendlier products and embracing all our activities in product development, raw materials procurement, production, physical distribution, and sales, along with the effective use of customer feedback. Already by FY2008, 75% of our entire lineup and 100% of new products were environmentally sound products.



We are increasing the proportion of use of silica (a type of natural mineral) as a rubber stiffener instead of carbon black made from petroleum. We also survey suppliers of raw materials, parts, and packaging materials that contain substances of concern (SOCs). and waste emissions as well as maximizing their collection and disposal of used tires. Most distribution centers also take part in local environmental activities in order to improve mutual understanding with local communities.

Tire distributors are reducing their energy use

All kinds of steps are being taken to reduce the impact of our manufacturing activities on the environment by, for example, reducing greenhouse gas emissions, increasing energy efficiency, reducing emissions of industrial waste, recycling all industrial waste, achieving zero emissions, preventing water, air, and soil pollution, and strengthening control of chemical substances.

7. Customer feedback

6. Sales

## 3. Procurement of raw materials

5. Physical distribution

## 4. Production

We are constantly developing concepts for environmentally sound products for a new age from new perspectives. We aim to provide new value, such as the improved environmental performance offered by DNA eco-tires and ADVAN premium tires.

1. Product planning

Lower unit energy consumption (kl/t-km) is being pursued in physical distribution. Steps being taken include switching from use of road to marine and rail transportation services ("modal shift"), expanding the proportion of direct shipments from plants to tire distributors, and increasing loading efficiency.

2. Product development

Products are subject to quadruple design reviews to rigorously confirm their environmental performance using environmental assessment check sheets and environmental radar charts. Advanced environmental performance is also attained through use of cutting-edge materials, designs, and simulation techniques.