

Giant Group's Green Materials Management Strategy

To strengthen product sustainability and minimize environmental impact, Giant Group has established a comprehensive Green Materials Management Strategy that addresses chemical safety, material innovation, and cross-industry collaboration.

Chemical Management and Compliance

Giant Group have implemented a rigorous chemical management framework that prioritizes substances with high regulatory risk, such as REACH SVHCs and Proposition 65 listed chemicals. All incoming materials are reviewed through SDS and MSDS documentation to ensure compliance and to eliminate potential risks in the supply chain. As a result of these efforts, 100% of Giant's products met all applicable regulatory requirements in 2024.

Innovation in Materials and Design

Renowned within the industry for strong partnerships, Giant Group, through its lead supply chain system, collaborates with suppliers to co-develop new formulations and sustainable materials, with a particular focus on the use of recycled and circular raw materials. Together, we are advancing the development of non-hazardous handlebar, tire, and saddle components that are free from PAHs, phthalates, and PFAS. In addition, we are phasing out traditional solvent-based coatings by introducing water-based paints and powder coating technologies, offering low-VOC solutions that further reduce environmental impact.

Supplier Collaboration and Industry Alliances

Giant Group leverages the Bicycle Alliance for Sustainability platform to showcase innovation through best practices and integrates external expert resources, inspiring the industry to explore new materials and collectively create sustainable value. Giant Group have formalized collaborative agreements with supplier networks to embed green R&D into procurement requirements, ensuring that suppliers actively engage in pilot testing of alternative materials. Furthermore, by joining industry technology alliances, Giant works collectively with peers to establish common sustainability standards—such as developing a shared Restricted Substances List (RSL) and co-creating safer, more sustainable material alternatives.

Giant Group' s Product Design Strategy

Giant Group' s product design strategy integrates life cycle thinking, ensuring that environmental impacts are considered from the very beginning of new product development. This approach covers all stages of the product life cycle—from raw material sourcing, manufacturing, and distribution to product use and end-of-life management.

In alignment with ISO 14067, ISO 14040, and ISO 14044, Giant has established a structured methodology for life cycle environmental impact assessment. A phased plan has been implemented to conduct carbon footprint and environmental footprint analyses across different product models, with the ultimate goal of building a comprehensive LCA coefficient database for the bicycle industry.

Based on identified environmental hotspots, we focus on material design innovations and process technology improvements, working closely with our supply chain partners to drive a low-carbon transition. In addition, Giant regularly reviews and manages global product safety regulations and hazardous substance requirements to ensure full regulatory compliance across all markets.

Product Life Cycle Assessment Results in 2024

Life Cycle Assessment approach	% of Total Products
Full LCA assessment – Product Environmental Footprint* ¹	0.15
Simplified LCAs – Product Carbon Footprint	3.55
Others – Control hazardous substances in products to ensure compliance with regulations (e.g. RoHS)	96.3
Total	100

Note*1: The environmental footprint assessment evaluates the impact of products across 18 environmental aspects. These include global warming, stratospheric ozone depletion, ionizing radiation, ozone formation affecting human health, fine particulate matter formation, ozone formation affecting terrestrial ecosystems, terrestrial acidification, freshwater eutrophication, marine eutrophication, terrestrial ecotoxicity, freshwater ecotoxicity, marine ecotoxicity,

human carcinogenic toxicity, human non-carcinogenic toxicity, land use, water consumption, mineral resource scarcity, and fossil resource scarcity.

Revenues from Eco-Labeled Products

Revenues from:	2021	2022	2023	2024
Product certified with Type I eco-labels (ISO 14024)	–	–	–	–
Products certified with carbon footprint	–	–	3.92%	3.7%
Other sustainable products or services ^{*2}	100%	100%	96.08%	96.3%
Percentage of sustainable revenues	100%	100%	100%	100%

Note*2: According to the scope and definitions of the [EU Taxonomy Regulation](#), Giant Group's products and services are aligned with the following five categories of sustainable economic activities:

Climate Mitigation

3.3 Manufacture of low-carbon technologies for transport

Giant Group manufactures and sells a wide range of bicycles and e-bikes, contributing to the development of sustainable and low-emission mobility solutions.

3.18 Manufacture of automotive and mobility components

The company also produces and distributes various components for bicycles and e-bikes, supporting the broader low-carbon transport ecosystem.

6.4 Operation of personal mobility devices and cycle logistics

Since 2009, Giant Group has promoted the YouBike public bicycle sharing service, which currently operates across 14 regions in Taiwan, providing accessible, low-carbon mobility options for the public.

Transition to a Circular Economy

5.1 Repair, refurbishment and remanufacturing

5.4 Sale of second-hand goods

Since 2011, Giant Group has launched a second-hand bicycle trading service. Through activities such as collection, disassembly, refurbishment, and remanufacturing, the company extends product life cycles and advances the principles of the circular economy.