

html

Product Carbon Footprint Dashboard

htuoujhnuq

Total PCF: 3.74 kg CO2e

TOTAL FOOTPRINT

3.74 kg CO2e

CARBON INTENSITY

3.74 kg CO2e / unit

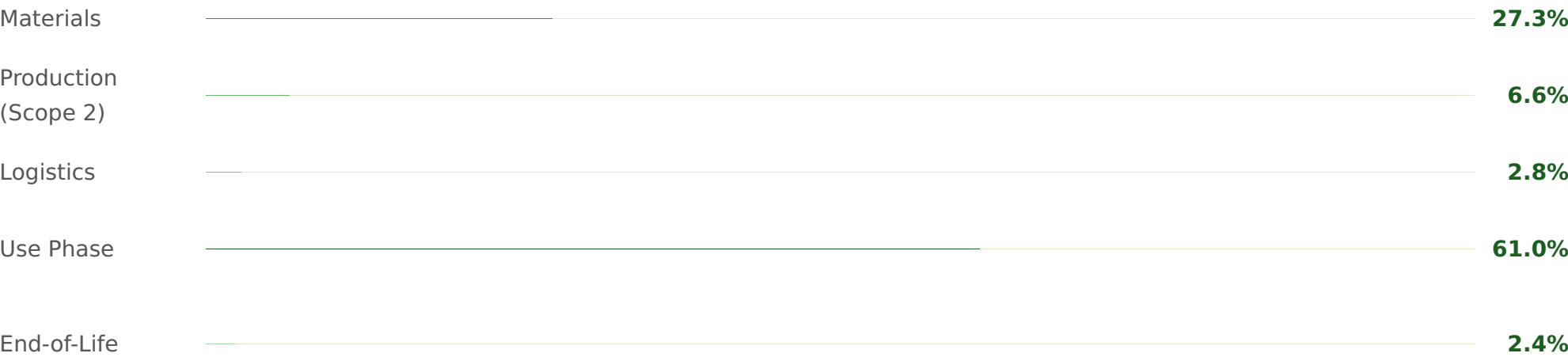
TOP MATERIAL HOTSPOT

Silicon Microcontroller

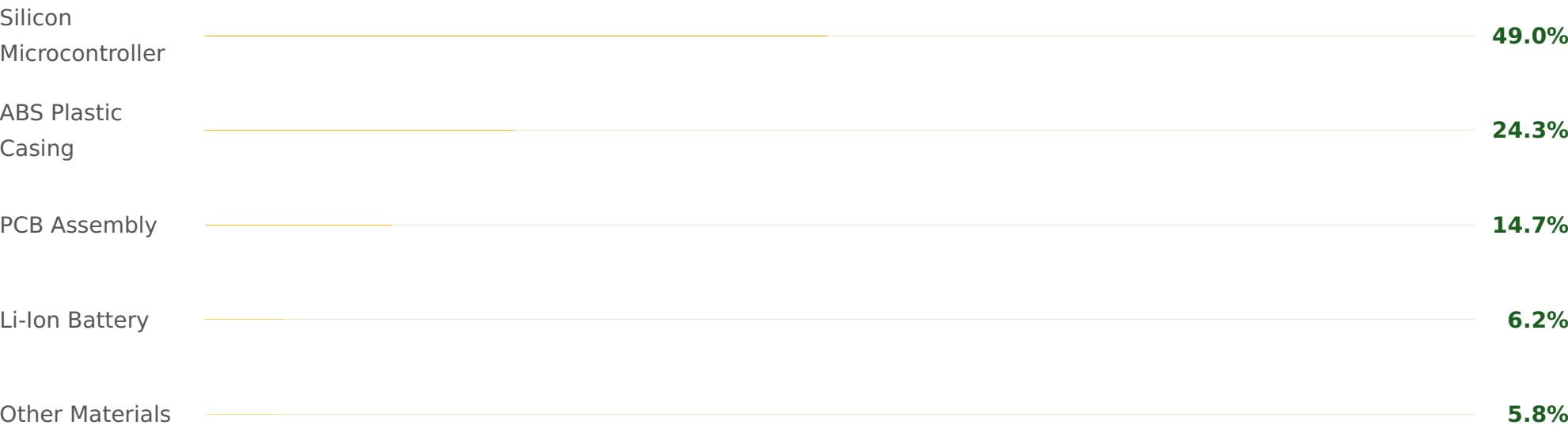
PRIMARY EMISSION SCOPE

Scope 3

Lifecycle Stage Breakdown



Material Carbon Impact



Key Highlights

Use Phase Dominance: The product's operational energy consumption accounts for 61.0% of the total carbon footprint.

Material Hotspots: Raw materials, particularly the Silicon Microcontroller and ABS Plastic, contribute 27.3% to total emissions.

Manufacturing Efficiency: Despite 45% renewable energy use, the remaining non-renewable portion contributes 6.6% due to China's grid intensity.

Recommendations for Reduction

Energy Efficiency in Use: Optimize product design for minimal energy consumption during its lifespan.

Renewable Energy Procurement: Increase renewable energy adoption in manufacturing and across the supply chain, especially for high-impact suppliers.

Material Optimization: Explore lower-carbon alternative materials and design for enhanced recyclability, focusing on high-impact components.

Supply Chain Engagement: Work with key suppliers to identify opportunities for reducing embedded emissions in purchased goods.

Enhance Circularity: Expand and promote take-back and refurbishment programs for extended product life.