

Product Carbon Footprint Dashboard **8.915 kg CO2e**

For Eco-Smart Device X (ilytstwfkr)

System Boundary: Cradle-to-Grave | Standard: GHG Protocol

Total Carbon Footprint per unit

Total Footprint

8.915

kg CO2e / unit

Carbon Intensity

59.43

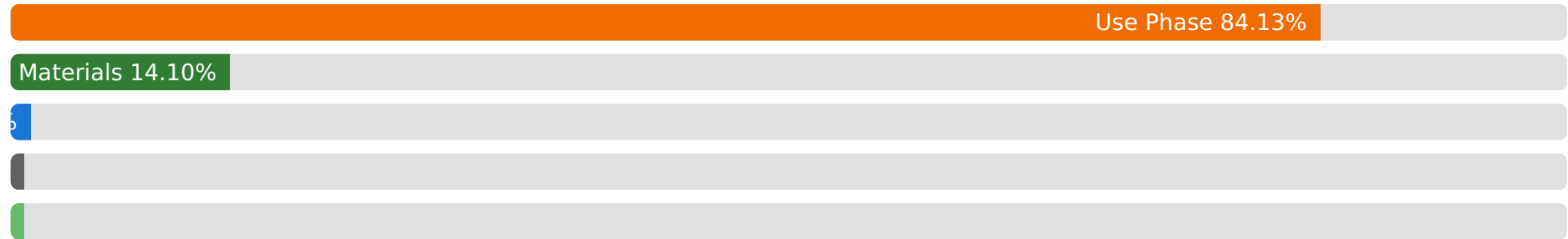
kg CO2e / kg product

Top Material Hotspot

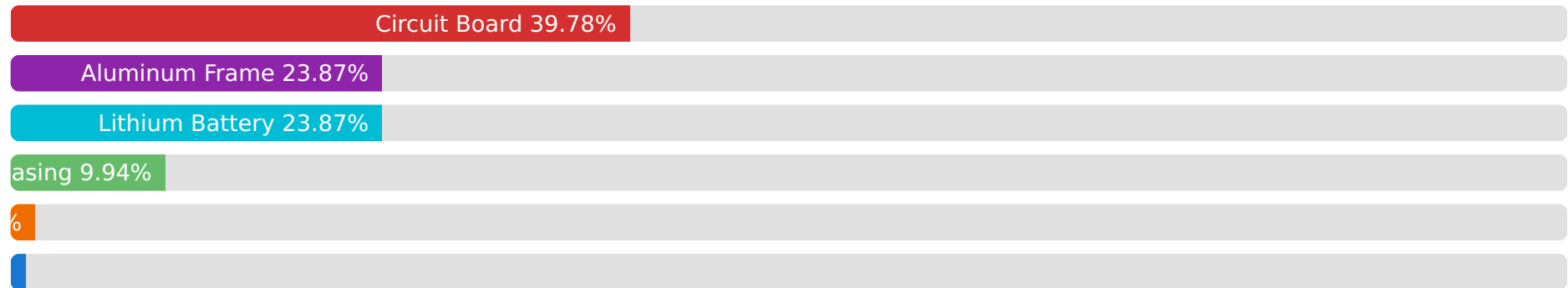
Circuit Board

Emission Breakdown

Lifecycle Stage Breakdown



Material Impact Breakdown (of 1.257 kg CO2e)



Highlights & Key Insights

- ✓ **Use Phase Dominance:** The product's operational energy consumption over its 5-year lifespan accounts for a significant ~84% of its total carbon footprint.
- ✓ **Material Impact:** Purchased goods and services, particularly materials like the Circuit Board and Aluminum Frame, contribute the second largest share (~14%) due to energy-intensive production.
- ✓ **Circular Economy Strengths:** High recyclability (80%) and an additional 10% material recovery through circular programs significantly mitigate end-of-life impacts.

Recommended Action Plan

- ▶ **Enhance Use Phase Efficiency:** Prioritize design improvements for lower energy consumption during product use and explore renewable energy charging guidance for users.
- ▶ **Optimize Material Sourcing:** Focus on procuring lower-carbon, recycled-content materials, especially for high-impact components like circuit boards and aluminum.
- ▶ **Strengthen Circularity:** Expand existing take-back programs and explore innovative recycling technologies to achieve even higher material recovery rates beyond current targets.

