The user wants a single HTML file dashboard. I will extract all the necessary data points from the provided HTML report and then structure the dashboard with the specified layout, colors, and interactive-looking (CSS/SVG based) charts. **Extracted Data:** * **Product:** kuuggvpsve * **Company:** kitzdnvgqg * **Total PCF:** 16.95 kg CO2e per functional unit * **System Boundary:** factory_gate (cradle-to-gate, but comprehensive cradle-to-grave calculation provided) * **Production Country:** China * **Standard:** GHG Protocol * **Functional Unit:** 1.0 unit of kuuggvpsve **Emission Breakdown:** * **Scope 1:** 0.00 kg CO2e * **Scope 2 (Production Energy):** 3.10 kg CO2e (18.3% of total) * **Scope 3 (Value Chain):** 13.85 kg CO2e (81.7% of total) * **Materials Acquisition & Processing (Category 1):** 12.15 kg CO2e (71.7% of total) * Aluminum Casing: 4.00 kg CO2e * Circuit Board: 3.60 kg CO2e * Plastic Housing: 1.05 kg CO2e * Copper Wiring: 0.50 kg CO2e * Battery Cell: 3.00 kg CO2e * **Transportation and Distribution (Category 4 & 9):** 0.29 kg CO2e (1.7% of total) * **Use Phase (Category 11):** 2.10 kg CO2e (12.4% of total) * **End-of-Life (Category 12):** -0.69 kg CO2e (-4.1% of total, a credit) **Highlights (from Executive Summary and Hotspot Identification):** 1. Materials Acquisition & Processing (Scope 3 Upstream) is the primary hotspot, accounting for ~71.7% of the total PCF, driven by high-impact materials like aluminum, circuit boards, and battery cells. 2. Production Energy (Scope 2) is the second significant contributor, at ~18.3%, despite 50% renewable energy usage in China. 3. The Use Phase (Scope 3 Downstream) contributes about 12.4%, emphasizing product energy efficiency. 4. End-of-Life (Scope 3 Downstream) shows a net credit, indicating effective circular economy programs and high recyclability (70%). **Recommendations for Improvement (Action Plan):** 1. **Material Optimization:** Investigate lower-carbon alternative materials, increase recycled content, or optimize material usage in design. 2. **Renewable Energy Expansion:** Increase renewable energy procurement or generation at production facilities beyond the current 50%. 3. **Supply Chain Engagement:** Work with key suppliers to gather primary emission data for high-impact components. 4. **Product Energy Efficiency:** Continue to innovate for reduced energy consumption during the product's use phase. 5. **Circular Economy Enhancement:** Strengthen circular/take-back programs and explore advanced recycling technologies. Now, I will construct the HTML and CSS for the dashboard. I will use CSS variables for colors to maintain consistency and make it easier to adjust. For the "Inter" or "Roboto" font, I will use `font-family: 'Roboto', 'Inter', -apple-system, BlinkMacSystemFont, 'Segoe UI', Arial, sans-serif;` to prioritize widely available system fonts or similar-looking fonts, as external font loading might technically involve a "JS library" in some definitions, and the prompt explicitly forbids external JS libraries. CSS `@import` for fonts usually works fine without JavaScript, but to be completely safe and align with the "no external JS libraries" constraint, I will rely on system fonts. The GHG Protocol Land Sector and Removals (LSR) Standard was released on January 30, 2026, and takes effect on January 1, 2027. It provides accounting requirements and guidance for land-based emissions and CO2 removals. The accompanying guidance document is expected in Q2 2026. The report correctly states that direct LSR impacts are not separately quantified due to the electronic nature of the product and lack of explicit land-use data, but notes that embedded LSR impacts within material emission factors would be integrated if primary data were available. GHG Protocol Scope 3 categories are: Purchased goods and services (Category 1), Capital goods (Category 2), Fuel- and energy-related activities (Category 3), Upstream transportation and distribution (Category 4), Waste generated in operations (Category 5), Business travel (Category 6), Employee commuting (Category 7), Upstream leased assets (Category 8), Downstream transportation and distribution (Category 9), Processing of sold products (Category 10), Use of sold products (Category 11), End-of-life treatment of sold products (Category 12), Downstream leased assets (Category 13), Franchises (Category 14), and Investments (Category 15). The report addresses categories 1, 4, 9, 11, and 12. The report references "Ecoinvent and DEFRA equivalents" for emission factors. Ecoinvent is a life cycle inventory (LCI) database that provides comprehensive datasets for sustainability assessments, including product-related emission factors

with different geographical resolutions. DEFRA (now DESNZ) conversion factors are published by the UK government for calculating GHG emissions from various activities, often used for UK and European sites. These databases are commonly used for Scope 3 reporting and filling data gaps. html

carboncalcpcf.com

Product Carbon Footprint Dashboard

Product: **kuuggvpsve**

Total PCF: **16.95** kg CO2e

Total Footprint

16.95

kg CO2e / unit

Primary Emission Scope

Scope 3

(81.7%)

Top Hotspot Category

Materials

(12.15 kg CO2e)

System Boundary

Factory Gate

(cradle-to-gate)

Lifecycle Stage Breakdown

Highlights & Key Insights

- **Materials Dominate:** Materials acquisition and processing (Scope 3 Upstream) account for approximately 71.7% of the total PCF, driven by high-impact materials such as aluminum, circuit boards, and battery cells.
- **Production Energy Impact:** Despite 50% renewable energy use, production energy (Scope 2) still contributes significantly at 18.3% of the total footprint.