**PRD-33 — Extended Producer Responsibility (EPR) and Packaging Reporting**

**Intent**

Capture packaging materials/weights and producer IDs; produce jurisdiction-ready EPR reports and feed packing labels.

**Preconditions**

• Packaging attribute catalog (material codes, recyclability, weights, units); producer ID registry per jurisdiction.

**Steps**

• Per-Product Packaging: record primary/secondary/tertiary packaging components with material, weight, % recycled, and EPR applicability.

• Producer IDs: store per-jurisdiction producer IDs; track validity dates and issuer docs.

• Validation: ensure weights + units consistent; conversions governed; sum checks pass.

• Overlay & Labels: compute packaging labels/marks needed; show Packaging Badge (e.g., Triman, glass recycle, paper 60%).

• Reporting: generate EPR Period Pack (CSV/JSON + PDF cover) per jurisdiction with producer IDs, materials breakdown, and evidence links.

• Schedule & Sign: scheduled runs (monthly/quarterly); sign exports; store receipts.

**Edge cases**

• Missing or low-confidence weights → open exception with AI-assist suggestions based on product class.

• Jurisdiction rule changes → PRD-06-style ImpactDelta for packaging.

**Done when**

• Reports pass structure checks; producer IDs current; exports are signed and reproducible.