**PRD-29 — CBAM Attributes & Reporting Hooks**

*(Capture carbon-relevant attributes and produce CBAM-ready outputs during the transition and beyond)*  
**Authority notes:** CBAM **transitional phase 2023–2025** (reporting), **definitive from 2026**; 2025 registry functions expanded (authorised declarant). [Reuters+3Taxation and Customs Union+3Taxation and Customs Union+3](https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en?utm_source=chatgpt.com)

**Intent**  
Store per-product/process carbon attributes, map them to HS/PCV combos, and export **CBAM-ready** data for the importer/representative.

**Preconditions**

* HS/PCV present; corridor to EU; facility/plant metadata; emissions factor sources.

**Flow (happy path)**

1. **Capture**: for CBAM-scope products, record **embedded emissions data** (plant, method, measurement basis, verification status).
2. **Validate**: check units, data age, and default vs measured; flag where defaults will be used.
3. **Corridor Calc**: on EU import scenario, compute the CBAM data bundle (product/HS, emissions, plant, origin).
4. **Registry Prep**: surface importer fields required by the **CBAM Registry** (authorised declarant linkage).
5. **Export**: generate quarterly (transition) or periodic bundles for reporting; log **CBAM Pack Receipt**.

**Edge cases**

* Small-importer thresholds/exemptions (policy in flux) → show tenant policy toggle + warnings; still capture data for large importers.
* Missing plant data → allow default values with clear downgrade banner.

**Done when**

* EU-bound shipments output a complete CBAM bundle; reporting exports match registry requirements; evidence kept with hashes.