

Building a Single Source of Truth for Sustainability Reporting

Methodology derived from leading a global manufacturing engagement

Role: Project Lead & Business Analyst responsible for baseline integrity, prioritisation, and frontline coaching

Fragmented data and manual reporting create compliance errors that can trigger fines, legal action, and reputational harm

Data is produced by multiple operational units, consolidated manually, and validated too late.



The Operational Problem

- Inconsistent definitions across sources reduce confidence in reported figures.
- Reporting and audit cycles are prolonged by manual reconciliation and rework.
- Review discussions prioritise data validation over corrective decision-making.

Analyst interventions

- Establish a single reporting cadence and KPIs across all operational units.
- Introduce validation gates before results reach leadership.
- Enforce one authoritative input path per metric to remove inaccurate submissions.

Decisions enabled

- Target cycle time < 7 days for defined KPI set, supported by near real-time dashboards.
- Enable comparisons across operational units to surface variance and prioritise action.
- Increase leadership confidence, shifting focus from data trust to performance improvement.

GRI and CDP requirements translated into governed KPIs and controls

GRI sets coverage and ownership; CDP sets evidence, completeness, and submission readiness

Standard Requirement	BA Output	Dashboard Proof
GRI: Material topics, boundaries, ownership	Topic-to-KPI list; KPI definition fields (unit, grain, owner, boundary note)	Topic views; definition drill-through; published period view (locked)
CDP: Disclosure questions, evidence expectations, completeness	Question-to-KPI map; evidence fields per KPI; targets and assurance flags	Readiness status; evidence present or missing; exceptions queue for gaps

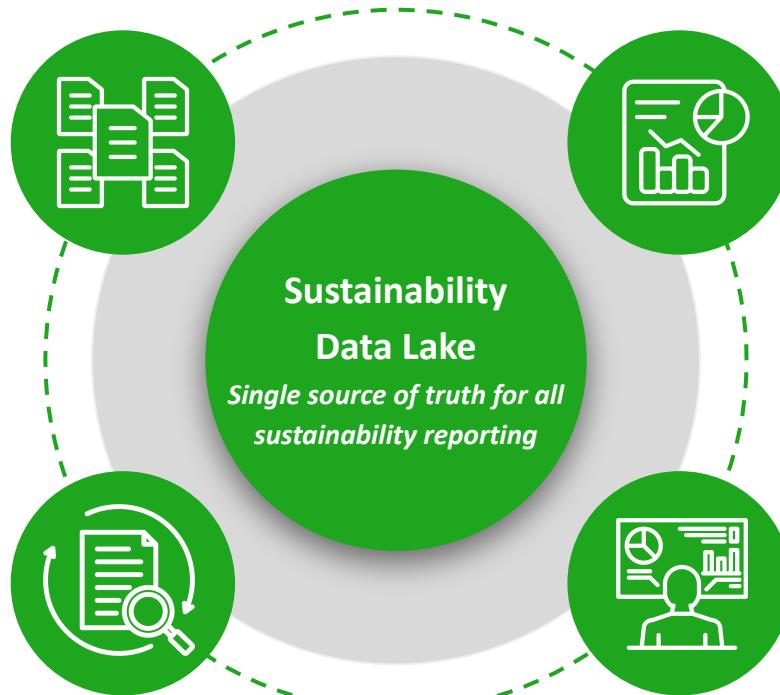
Example, Scope 2: invoice or meter → kWh normalised → validation gates → factor version applied → published KPI (run ID)

A central sustainability data lake standardizes, validates, and serves all reporting

Data is ingested once, validated centrally, and reused consistently across GRI and CDP outputs

1. Data Sources

- Internal operational systems
- Supplier & partner submissions
- Manual files & documents
- External & public datasets



2. Data Handling

- Central validation & standard definitions
- Latest data active, full history retained

3. Reporting Outputs

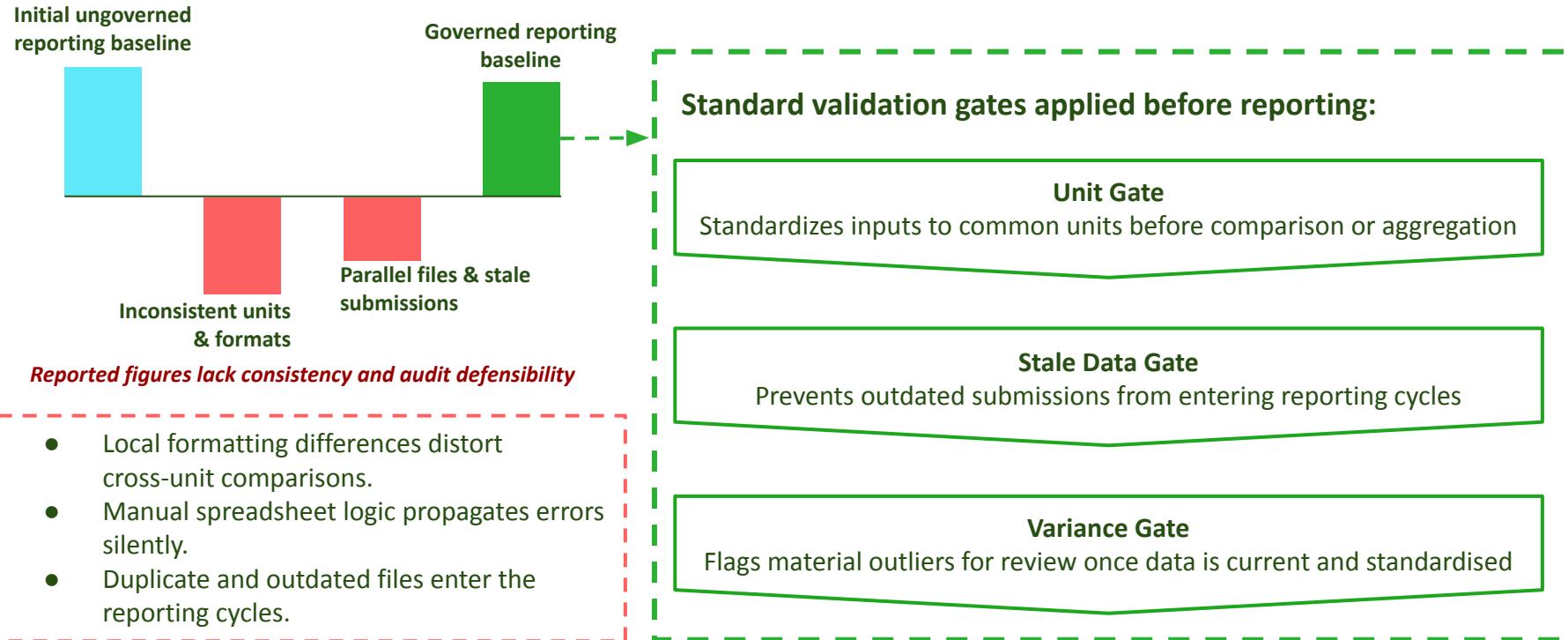
- Consolidated compliance reports
- Scope 1, 2, and 3 KPI tables
- Operational unit & period level summaries

4. Decision Outputs

- Executive dashboards
- Cross-unit performance views

Built-in validation and governance prevent compliance errors before submission

Errors are detected early through standard checks, controlled submissions, and full traceability



A trusted baseline shifts compliance from reactive reporting to targeted action

Standardised data and early validation enable faster cycles and confident decisions



Focus narrows to areas combining reliable data and high control

Outcomes enabled by a trusted baseline:

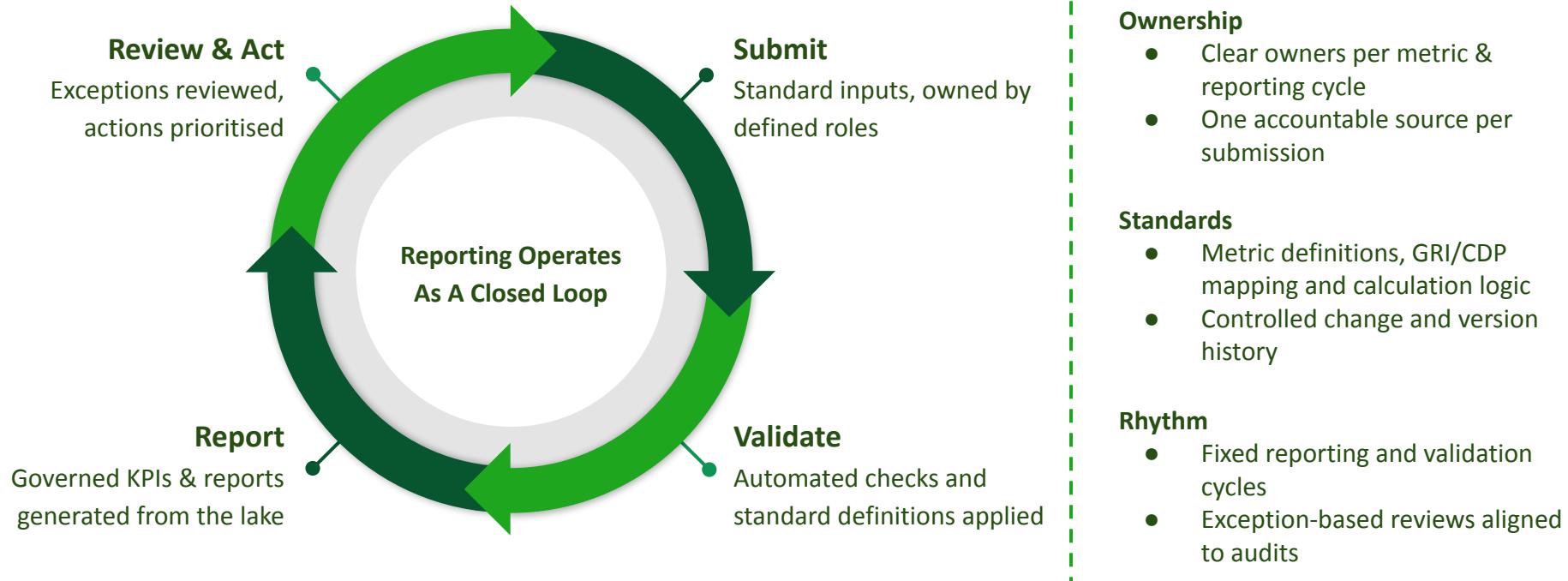
 **Cross-unit performance:** Like-for-like comparisons surface material variance across similar operations.

 **Scope prioritisation:** Effort is focused on categories with measurable impact and clear ownership.

 **Supplier visibility:** Data gaps highlight where engagement materially affects outcomes.

Clear ownership and standard workflows sustain reporting quality over time

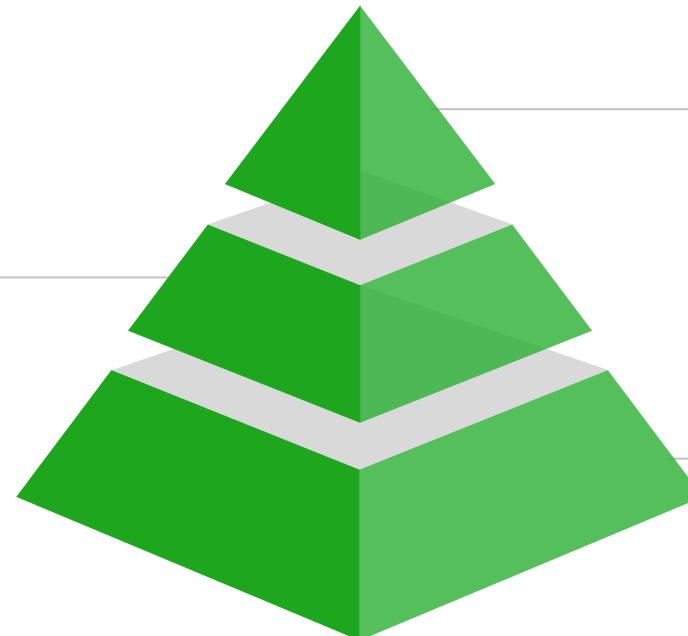
Defined roles, artefacts, and routines ensure continuity beyond implementation



A single source of truth makes compliance reliable, repeatable, and scalable

Addresses fragmented inputs, manual consolidation, and late-stage validation through governed definitions and pre-publish controls.

Manual checks replaced by publish controls (unit, timeliness, variance gates; exceptions logged, owned, and tracked to closure)



Reporting cycle stabilised through a certified view (audit-period snapshot, lineage to source records, executive roll-ups for action)

Fragmented inputs unified into one governed KPI catalogue (GRI topics and CDP disclosure mapping, owners, evidence fields)

Designed to scale across sites, metrics, and future reporting requirements

Appendix: Technical architecture that enables governed sustainability reporting

Technology enables scale and reliability, governance drives decisions

Governance controls enabled

- Automates collection of priority inputs.
- Blocks duplicate and outdated submissions.
- Enforces consistent refresh cut-offs for reporting cycles.

Technology & Tools



Medallion Processing



Insight Interface



Illustrative dashboard, non-client specific

- Supports consistent review and decision-making.
- Prevents use of parallel or legacy files.
- Maintains source-to-report traceability.