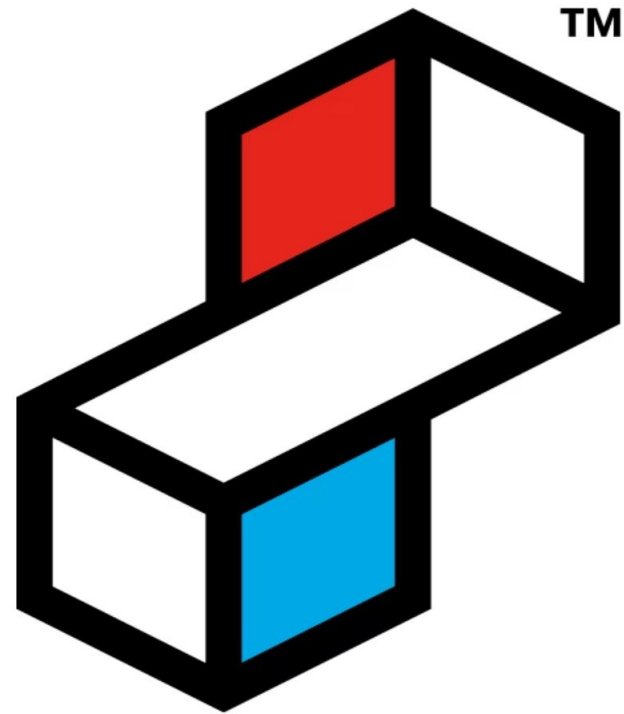


Lean & Green SOP Manual

Transport & Logistics Companies

Full Version – Operational, Audit-Ready, Certification-Ready. This manual defines the complete Lean & Green management system for transport and logistics companies, providing structured guidance for teams working towards certification and measurable CO₂ reduction.



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1. Purpose

This SOP defines the **complete Lean & Green management system** for transport and logistics companies. It establishes a structured, auditable framework that integrates environmental performance into daily operations – from fleet management to warehousing and last-mile delivery.



CO₂ Reduction

Systematic reduction of carbon emissions across all transport modes and facilities.



Operational Efficiency

Continuous improvements in fuel use, load factors, routing, and facility energy.



Certification Compliance

Full alignment with Lean & Green certification requirements at every star level.



Stakeholder Engagement

Active involvement of employees, customers, and suppliers in the green agenda.

2. Scope

This SOP applies to all operational areas and business units participating in Lean & Green. Coverage spans the full logistics value chain – from long-haul transport to corporate offices – ensuring no emission source is left unaccounted.



Road Transport

Own fleet and subcontractors, including all vehicle categories and fuel types.



Airfreight & Ocean

Air and ocean freight lanes with full emissions tracking and GLEC-compliant calculations.



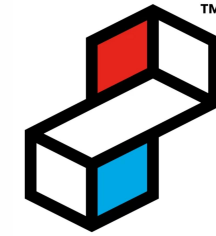
Rail, Barge & Intermodal

Low-carbon alternatives to road, supporting modal shift initiatives and reporting.



Warehousing & Last-Mile

Fulfilment centres, corporate offices, and last-mile delivery operations across all business units.



3. Roles & Responsibilities

Clear ownership is fundamental to successful Lean & Green implementation. Each role below carries defined accountability for data, actions, and outcomes within the management system.

1

Steering Committee

Approves the CO₂ reduction roadmap, reviews progress quarterly, oversees certification, approves CAPA actions, and ensures alignment with the company's broader ESG strategy.

2

Programme Manager

Owens the Lean & Green roadmap end-to-end: coordinates data collection, leads reduction initiatives, prepares certification documentation, and manages stakeholder engagement.

3

Fleet Manager

Implements fleet decarbonisation measures, tracks fuel consumption and emissions, ensures eco-driving compliance, and manages telematics integration and reporting.

4

Warehouse Manager

Manages energy, waste, and water performance at all facilities. Ensures ISO 14001 alignment and oversees solar PV, HVAC optimisation, and LED lighting programmes.

5

Procurement

Ensures supplier sustainability compliance, integrates CO₂ criteria into tenders and RFPs, and manages subcontractor engagement and improvement commitments.

6

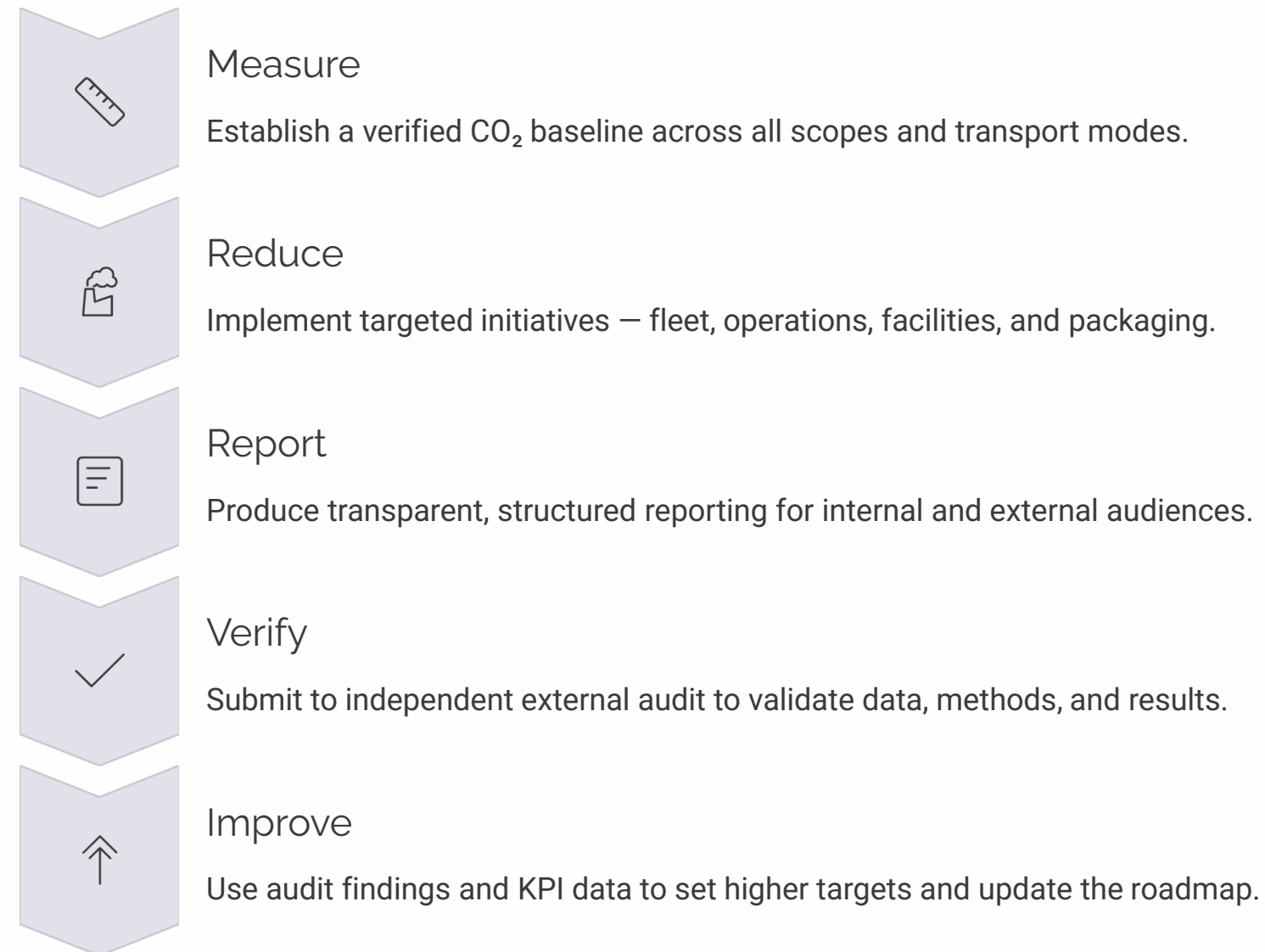
IT & Data

Guarantees data quality and integrity, maintains CO₂ and fleet dashboards, and integrates telematics, TMS, WMS, and ERP data flows into the reporting system.

4. Lean & Green Management System

Core Principles

The Lean & Green management system is built on five interlocking principles that form a continuous improvement cycle. Each principle reinforces the next, creating a robust and auditable framework for sustained CO₂ reduction.



ed as a five-star progression, each star representing a higher level of verified decarbonisation commitment and
rs as they demonstrate measurable, auditable results.

5. Lean & Green Certification Process



1st Star — 20% Reduction in 5 Years

CO₂ baseline, reduction plan, monitoring system, and verified results.



2nd Star — 10% Additional Reduction

Demonstrated continuous improvement with new reduction measures in place.



3rd Star — Advanced Decarbonisation

Modal shift, alternative fuels, and a further 10% verified reduction.



4th Star — Net-Zero Roadmap

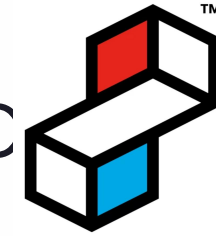
Science-based targets approved and renewable energy integration under way.



5th Star — Net-Zero Achievement

Verified net-zero operations across all scopes and business units.

6. Environmental Process — CO₂ Baseline Creation



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A credible, auditable CO₂ baseline is the foundation of the entire Lean & Green programme. Data must be comprehensive, validated, and calculated using recognised international standards — ISO 14083, the GLEC Framework, and EN 16258.

Data Collection Sources

- Fuel consumption — diesel, LNG, CNG, HVO, electricity
- Distance travelled and load factors
- Empty kilometres and refrigeration unit consumption
- Subcontractor emissions declarations
- Warehousing energy and last-mile emissions

Data Systems

- Telematics, TMS, WMS, ERP
- Fuel cards and electricity bills
- Supplier verification portals

Validation Protocol

1 4-Eyes Principle

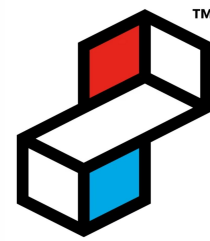
All data entries reviewed and approved by a second qualified person before submission.

2 Outlier Detection

Automated flagging of anomalous fuel or emissions data for immediate investigation.

3 Missing Data Alerts

System-generated alerts ensure no data gaps remain prior to reporting periods.



6.2 CO₂ Reduction Plan

The reduction plan covers four strategic areas: fleet, operations, facilities, and packaging. Measures are selected based on CO₂ impact, cost-effectiveness, and feasibility within the organisation's operational context.

Fleet Measures

- EV trucks and HVO/biofuel transition
- LNG phase-out programme
- Eco-driving and route optimisation
- Idle reduction, tyre pressure monitoring, aerodynamic improvements

Operational Measures

- Load optimisation and backhaul matching
- Shipment consolidation
- Modal shift – road to rail or barge
- Night deliveries and urban micro-hubs

Facility Measures

- LED lighting and solar PV installation
- Heat pumps and smart HVAC systems
- Energy management systems (EMS)

Packaging Measures

- Reusable packaging programmes
- Increased recycled content
- Right-sizing and packaging reduction initiatives



6.3 Monitoring & Reporting

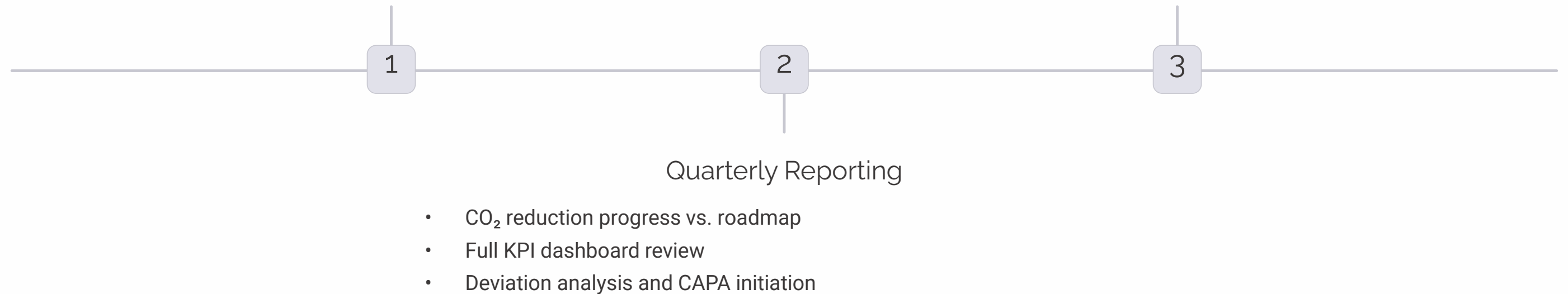
Robust monitoring and structured reporting at monthly, quarterly, and annual intervals ensure that CO₂ reduction progress remains visible, actionable, and audit-ready at all times. Deviations trigger immediate CAPA processes.

Monthly Monitoring

- Fuel consumption and CO₂ emissions
- Load factor and empty kilometres
- EV utilisation and HVO usage tracking

Annual Reporting

- Complete Lean & Green audit package
- Third-party CO₂ reduction verification
- Updated multi-year reduction roadmap



☐ All reporting must be traceable to source data with a complete audit trail. Quarterly deviations exceeding 5% of target require a formal CAPA within 10 working days.

7. Social Process — Lean & Green Social Dimension

The Lean & Green social dimension ensures that decarbonisation progress goes hand-in-hand with employee wellbeing, safety, and positive community impact. People are at the heart of sustainable logistics operations.



Driver Engagement

Structured eco-driving training programmes, certified safety training, fatigue management protocols, and performance-linked incentive schemes that reward sustainable behaviour on the road.



Employee Wellbeing

Comprehensive health and safety management, ergonomic workplace assessments for warehouse and office teams, and accessible mental health support resources for all staff.



Community Impact

Commitment to local hiring, structured apprenticeship programmes for young people, and active participation in community projects that strengthen relationships in the areas we operate.



8. Governance Process — Lean & Green Governance

Strong governance underpins the integrity and credibility of the entire Lean & Green programme. Compliance, supplier accountability, and proactive risk management ensure the system remains resilient and trustworthy.

Compliance Framework

- Environmental laws and regulations (EU, national)
- Road safety and transport regulations
- ESG reporting obligations (CSRD, GHG Protocol)
- Subcontractor and supplier compliance verification

Supplier Engagement

- Mandatory CO₂ reporting requirements for key suppliers
- Scheduled supplier sustainability audits
- Formal improvement plans with agreed milestones

Risk Management

- Climate risk assessments integrated into planning cycles
- Operational risk reviews covering fleet and facilities
- Supply chain disruption risk monitoring and response protocols





9. Data & Systems

A reliable, integrated data architecture is the backbone of Lean & Green reporting. Automated ingestion, rigorous validation, and real-time dashboards give operations and management teams the visibility they need to act decisively.

Data Architecture

- **Automated Ingestion**
Direct feeds from telematics, TMS, WMS, and ERP systems minimise manual data entry and error risk.
- **Supplier Data Integration**
Structured submission portals for subcontractor and supplier emissions data with automated validation checks.
- **Audit Trail**
Every data point is timestamped, attributed, and traceable to its source for full audit readiness.

Live Dashboards

 CO₂ Dashboard Real-time emissions vs. reduction targets by mode and business unit.	 Fleet Dashboard Fuel, idle time, eco-driving scores, EV utilisation, and HVO consumption.
 Warehouse Energy kWh consumption, solar generation, HVAC efficiency, and waste metrics.	 Modal Shift Dashboard Road vs. rail/barge split, CO ₂ savings from modal shift initiatives.

10. Audit & Continuous Improvement

Continuous improvement is not optional – it is a core certification requirement. Internal audits, structured CAPA processes, and regular management reviews ensure the programme evolves and strengthens year on year.

Internal Audits


- CO₂ data audit – completeness and accuracy
- Fleet audit – fuel records, telematics, eco-driving compliance
- Warehouse audit – energy, waste, and water
- Supplier audit – emissions data and improvement plans

CAPA Process

- Root cause analysis for every identified deviation
- Formal action plan with owner and deadline
- Verification that corrective action is effective
- Documented closure and lesson-learned recording

Management Review

- Quarterly Lean & Green steering review
- Annual certification readiness review with full programme assessment
- Target updates aligned to latest baseline data and star progression

 All audit findings must be logged in the central CAPA register. Critical findings require escalation to the Steering Committee within 5 working days of identification.