

MRC ESG Guidelines Tool Pack

Roadmap Builder

Tool Pack Module for Leading Users

Helps Leading users set ESG targets, KPIs, timelines, transition plans, owners, resources, evidence requirements, and progress review mechanisms.

Item	Description
Document purpose	Convert ESG assessment findings into a measurable multi-year implementation roadmap.
Primary user level	Leading users: companies with advanced ESG readiness, export exposure, buyer due diligence requirements, or sustainability reporting preparation needs.
Core outputs	Targets register, KPI tracker, ESG action plan, transition plan timeline, RACI matrix, budget plan, evidence checklist, dashboard, and management review log.
Recommended review cycle	Quarterly progress review for Leading users, with annual management approval and refresh.
Source alignment	Designed to align with the MRC ESG Guidelines, ESG Checklist, and MRC Low Carbon Transition Roadmap.

Module logic

Material topic -> baseline -> SMART target -> KPI -> action -> owner -> resources -> evidence -> progress review -> transition plan.

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1. Purpose and intended users

The Roadmap Builder helps Leading users convert ESG assessment results into a practical, evidence-backed implementation roadmap. It is designed for companies that already have basic ESG governance, materiality assessment, checklist results, gap analysis, baseline data, or buyer-driven ESG requirements.

1.1 Purpose

The tool converts ESG priorities into measurable targets, tracked KPIs, defined timelines, transition actions, responsible owners, resources, evidence records, and management review decisions. It prevents vague commitments by requiring every roadmap item to answer: what will be improved, by when, by whom, how progress will be measured, and what evidence will prove completion.

1.2 Intended users

User profile	Readiness and use case
Export-oriented rubber processors and manufacturers	Need ESG targets, emissions data, customer-ready evidence, supplier traceability plans, and due diligence records.
Larger companies or mature SMEs	Already have ESG policies, basic data collection, customer reporting experience, or internal ESG responsibilities.
Companies responding to customer ESG requirements	Need a structured plan to answer buyer questionnaires, corrective action requests, supplier codes, and audit findings.
Companies preparing for sustainability reporting or assurance	Need controlled data, approved targets, evidence packs, management review records, and assurance readiness.
Companies developing climate or low-carbon transition plans	Need Scope 1, Scope 2, relevant Scope 3, energy, resource efficiency, supplier engagement, and investment pathways.

1.3 Leading user configuration

- Require a baseline and evidence source before setting a performance target.
- Require every target to have at least one KPI, one accountable owner, and one review date.
- Require each action to include resource needs, evidence requirements, and closure criteria.
- Use quarterly progress review for major actions and annual management approval for the full roadmap.
- Flag climate, traceability, labour, OHS, regulatory, and customer-driven actions for management escalation when delayed.

2. Required inputs

The Roadmap Builder should be used after the company has completed or started its materiality assessment, ESG Checklist, gap analysis, and baseline data collection. The tool can still be used where data is incomplete, but data gaps must be recorded as roadmap actions.

Input	Purpose in the Roadmap Builder
Material ESG topics	Identifies the priority topics that should become roadmap focus areas.
ESG Checklist results	Shows which requirements are implemented, partially implemented, missing, not applicable, or under review.
Gap Analysis Register	Converts weaknesses into improvement actions with owners, timelines, and evidence.
ESG Risk Register	Ensures high-risk ESG matters are prioritised and escalated.
Baseline data	Provides starting values for KPIs such as energy, emissions, water, waste, OHS, training, supplier screening, and traceability.

Input	Purpose in the Roadmap Builder
Customer, certification, financing, or regulatory requirements	Ensures the roadmap responds to buyer expectations, audit findings, assurance needs, financing criteria, and market access requirements.
Management decisions	Confirms priorities, budget, owners, approvals, review frequency, and escalation triggers.

Minimum input rule

A roadmap item should not be created as a general intention such as "improve sustainability". It must include a measurable target or defined deliverable, KPI or closure test, owner, timeline, evidence, and review point.

3. Roadmap Builder workflow

The Roadmap Builder follows an eight-step workflow that starts with ESG priorities and ends with reviewed, evidence-backed progress.

Step	User action	Tool output
1. Select priority ESG topics	Select material topics from the materiality assessment, ESG Checklist, gap analysis, risk register, customer requirements, or management priorities.	Priority Topic List
2. Define baseline and boundary	Record baseline year, baseline value, reporting boundary, data source, assumptions, and evidence.	Baseline Register
3. Set SMART targets	Create targets that are specific, measurable, achievable, relevant, time-bound, assigned, evidence-backed, and reviewed.	ESG Objectives and Targets Register
4. Select KPIs	Choose quantitative or qualitative KPIs for each target.	KPI Tracker and Dashboard
5. Build transition actions	Identify policies, process changes, projects, training, supplier engagement, investments, and data improvements.	ESG Action Plan
6. Assign ownership and resources	Assign responsible owners, accountable approvers, support teams, budget needs, and approval authority.	RACI Matrix and Budget Plan
7. Set milestones and timeline	Organise actions into immediate, short-term, medium-term, and long-term implementation phases.	Milestone Tracker and Transition Plan Timeline
8. Monitor, report, and improve	Update status, track KPIs, review delays, retain evidence, escalate issues, and revise through management review.	Progress Tracker, Management Review Record, Continuous Improvement Log

3.1 Decision rules

Decision point	Required rule
Target creation	A target cannot be approved unless it has a baseline or a clear data-improvement action to establish the baseline.
KPI selection	Each target must have at least one KPI with a unit, frequency, owner, data source, and evidence location.
Action closure	An action should not be marked Completed until evidence is attached and reviewed.
Delayed action	Any action delayed by more than one review cycle should include cause, revised date, and escalation owner.
External claim	Any public or customer-facing ESG claim must be evidence-backed and management-approved.

4. Workbook and template structure

The Roadmap Builder can be delivered as a workbook, digital form, or guided template. The following structure is recommended for the tool pack.

Worksheet / section	Purpose
A. Roadmap Setup	Defines company name, roadmap period, reporting period, sites, business units, value chain scope, user maturity level, and approval owner.
B. Priority Topic Selection	Lists material ESG topics and confirms which topics are included, monitored, not applicable, or under review.
C. ESG Objectives and Targets Register	Records objectives, baselines, targets, target years, KPIs, boundaries, owners, and evidence requirements.
D. KPI Library and KPI Tracker	Provides suggested KPIs and tracks actual performance against baseline and target.
E. ESG Action Plan	Converts targets and gaps into actions, owners, timelines, dependencies, resources, and evidence.
F. Transition Plan Timeline	Organises actions into immediate, short-term, medium-term, and long-term phases.
G. Budget and Resource Plan	Records people, training, systems, external support, capital expenditure, and operating costs.
H. RACI Matrix	Clarifies who is Responsible, Accountable, Consulted, and Informed.
I. Milestone Tracker	Breaks large actions into interim deliverables and review points.
J. Evidence-Based Closure Checklist	Confirms whether each action is complete and supported by records.
K. KPI Dashboard	Summarises performance trends, target status, delays, and risks.
L. Management Review and Approval Log	Records review dates, decisions, approvals, escalations, and next steps.
M. Continuous Improvement Log	Captures lessons learned, recurring issues, revised actions, and future priorities.

5. Core roadmap fields

Every roadmap item should contain enough information to support implementation, monitoring, reporting, evidence review, and management decision-making.

Field	Description
ESG pillar and topic	Environmental, Social, Governance, or cross-cutting topic, such as Energy, Emissions, OHS, Forced Labour, Supplier Traceability, or Anti-Corruption.
Objective	Plain-language description of what the company wants to achieve.
Baseline year and value	Starting year and performance level used for comparison.
Baseline evidence	Source document such as bills, meter logs, audit reports, payroll records, supplier declarations, or GHG workbook.
Target statement	Specific, measurable, time-bound target approved by management.
Target type	Compliance, data improvement, performance, emissions, supplier, traceability, governance, reporting, or assurance readiness.
KPI and unit	Indicator used to track progress, such as kWh/tonne, tonnes CO2e, percentage, number, RM, m3/tonne, or closure rate.
Boundary	Site, department, product, workforce category, supplier group, reporting entity, or value chain segment covered.
Target year / due date	Year, quarter, or specific deadline for completion.
Roadmap phase	Immediate, short-term, medium-term, or long-term.
Key actions	Practical steps needed to deliver the target.

Field	Description
Responsible owner and accountable approver	Department or person implementing the action, and the senior person or committee approving completion.
Budget / resource need	Internal effort, training, external consultant, system, equipment, capital expenditure, or operating expenditure required.
Evidence required	Records that prove completion and support reporting or verification.
Status and progress	Not started, planned, in progress, completed, delayed, escalated, or verified.
Effectiveness check	How the company confirms that the action improved performance, reduced risk, or strengthened controls.
Management review date	Date for review, escalation, approval, or refresh.

6. Roadmap phases

Leading users should structure the roadmap over short, medium, and long horizons while keeping immediate actions practical and evidence-based.

Phase	Timeframe	Focus
Immediate	0-6 months	Confirm scope, owners, data sources, baselines, priority gaps, quick wins, urgent compliance actions, and management approval route.
Short-term	6-18 months	Strengthen policies, SOPs, data systems, supplier screening, training, evidence registers, and first KPI dashboard.
Medium-term	18-36 months	Implement operational improvement projects, supplier engagement, Scope 3 screening, assurance readiness, and performance targets.
Long-term	3-5+ years	Deliver transition investments, low-carbon projects, advanced supplier traceability, product/process redesign, science-aligned targets, and external verification where relevant.

Climate planning link

For climate transition planning, start with Scope 2 purchased electricity, then Scope 1 fuel and process emissions, then relevant Scope 3 categories such as purchased materials, waste, logistics, and supplier data.

7. KPI library for Leading users

The Roadmap Builder should include a KPI library that users can select from. KPIs should be adapted to the company boundary, data availability, customer requirements, and materiality results.

7.1 Environmental KPIs

Topic	Suggested KPIs
Energy	Total electricity consumption; electricity intensity; fuel intensity; number of energy efficiency projects completed; energy cost savings.
Emissions	Scope 1 emissions; Scope 2 emissions; relevant Scope 3 emissions; Scope 1 and 2 emissions intensity; emissions avoided or reduced.
Renewable energy	Renewable electricity percentage; onsite solar generation; renewable energy certificates retired where applicable.
Water	Total water withdrawal; water intensity; water recycled or reused; leaks repaired; effluent compliance rate.
Waste	Total waste generated; scheduled waste generated; recycling or recovery rate; waste

Topic	Suggested KPIs
	diversion rate; waste intensity.
Hazardous substances	Chemical inventory completion; SDS coverage; spill incidents; storage inspection findings closed.
Materials and circularity	Recycled input material percentage; production scrap rate; packaging reduction; material yield.
Supplier environmental performance	Percentage of priority suppliers screened; percentage providing environmental data; corrective action closure rate.
Traceability and deforestation	Percentage of priority natural rubber suppliers with origin data, supplier declarations, sourcing evidence, or geolocation where required.

7.2 Social KPIs

Topic	Suggested KPIs
Occupational health and safety	Lost time injury rate; total recordable incident rate; near-miss reporting; HIRARC completion rate; safety training coverage.
Workers rights	Wage review completion; working hour review completion; payroll correction cases closed; contract coverage.
Forced labour prevention	Recruitment fee checks completed; migrant worker interviews completed; document access checks completed; corrective actions closed.
Child labour prevention	Age verification coverage; supplier child labour declarations; supplier screening completion.
Training and development	Training hours per employee; ESG training coverage; OHS training coverage; supervisor training completion.
Grievance mechanism	Number of grievances received; grievance closure rate; average closure time; repeat grievance rate.
Diversity, equity, and inclusion	Workforce composition; training access by employee category; promotion and remuneration review coverage.

7.3 Governance KPIs

Topic	Suggested KPIs
ESG governance	Percentage of material topics with assigned data owners; number of ESG Committee or management review meetings.
ESG data quality	Percentage of ESG data points supported by evidence; number of data gaps closed; number of reviewed datasets.
Supplier due diligence	Percentage of priority suppliers screened; supplier corrective action closure rate; supplier code acknowledgement rate.
Business ethics	Code of Conduct acknowledgement rate; conflict declaration completion; gift register usage.
Anti-corruption	ABAC training coverage; third-party due diligence completion; investigation closure rate.
Regulatory compliance	Permit renewal completion; regulatory findings closed; legal register review completion.
Reporting readiness	ESG evidence pack completion; disclosure review completion; management approval completion.

8. Example roadmap entries

The following examples show how Leading users can turn material ESG topics into measurable targets, KPIs, actions, owners, timelines, and evidence.

Topic	Target and KPI	Key actions	Owner / timeline / evidence
ESG Governance	Target: Appoint ESG lead and assign data owners for all material ESG topics by Q2 2027. KPI: Percentage of material topics with data owner.	Confirm material topics; appoint ESG lead; approve data ownership matrix.	Owner: ESG Lead / Management Timeline: Q2 2027 Evidence: Appointment record, data ownership matrix, approval minutes.
Energy	Target: Reduce electricity intensity by 5% per tonne of product by 2028 from 2026 baseline. KPI: kWh per tonne of product.	Conduct energy audit; repair compressed air leaks; optimise motors; improve production scheduling.	Owner: Facilities / EHS / Production Timeline: 2027-2028 Evidence: Energy audit, electricity bills, meter logs, project records.
Emissions	Target: Calculate Scope 1 and Scope 2 emissions annually starting reporting year 2027. KPI: Scope 1 and Scope 2 emissions calculated and approved.	Define boundary; collect fuel and electricity data; prepare GHG workbook; approve methodology.	Owner: ESG / Finance / EHS Timeline: Annual Evidence: GHG workbook, emission factor register, fuel records, electricity bills.
Supplier Traceability	Target: Obtain origin or traceability documentation from 80% of priority natural rubber suppliers by Q4 2027. KPI: Percentage of priority suppliers with traceability records.	Update supplier questionnaire; collect declarations; review purchase records; follow up gaps.	Owner: Procurement / ESG Timeline: Q4 2027 Evidence: Supplier declarations, purchase records, traceability register.
OHS	Target: Review HIRARC for 100% of high-risk production areas by Q4 2027. KPI: Percentage of high-risk areas reviewed.	Identify high-risk areas; conduct HIRARC review; update controls; train workers.	Owner: EHS / Production Timeline: Q4 2027 Evidence: HIRARC register, training records, inspection records.
Forced Labour	Target: Conduct recruitment fee checks for 100% of migrant workers by Q2 2027. KPI: Percentage of migrant workers interviewed or checked.	Review recruitment records; conduct confidential interviews; document findings; close corrective actions.	Owner: HR / ESG Timeline: Q2 2027 Evidence: Interview records, fee declaration forms, corrective action tracker.
Waste	Target: Increase waste diversion rate by 10% by 2028 from 2026 baseline. KPI: Waste diversion rate.	Improve segregation; verify contractors; create monthly waste tracker; assess recycling options.	Owner: EHS / Warehouse Timeline: 2027-2028 Evidence: Waste tracker, vendor records, consignment notes.

9. Climate transition planning function

For Leading users, the Roadmap Builder should include a dedicated climate transition plan. This section should link emissions baseline, transition risks, mitigation actions, investments, supplier engagement, and review decisions.

Component	Required content
Baseline	Base year, Scope 1, Scope 2, and relevant Scope 3 screening. Include methodology, emission factors, assumptions, and evidence.
Major sources	Purchased electricity, fuel, boilers, generators, vehicles, refrigerants, raw materials, logistics, waste, and suppliers.
Targets	Absolute, intensity-based, energy, renewable energy, project, data-quality, and supplier targets.
Mitigation actions	Energy efficiency, fuel optimisation, renewable energy, refrigerant management, waste reduction, logistics optimisation, supplier engagement.
Transition risks	Energy cost, customer carbon requirements, export market requirements, financing

Component	Required content
	expectations, technology change, and supplier emissions.
Transition opportunities	Cost savings, renewable energy, process improvement, low-carbon product innovation, supplier collaboration.
Residual emissions approach	Document hard-to-abate emissions and avoid net-zero or carbon-neutral claims without baseline, reduction plan, residual emissions approach, evidence, and approval.
Review process	Quarterly progress review for major actions and annual management review of targets, risks, assumptions, and investment needs.

9.1 Transition action hierarchy

Priority	Action hierarchy	Examples
1	Measure	Define boundary; collect electricity, fuel, waste, logistics, and material data; prepare GHG workbook; establish data controls.
2	Avoid and reduce demand	Switch off idle equipment; optimise production scheduling; improve preventive maintenance; reduce leaks and rejects.
3	Improve efficiency	Energy-efficient motors, LED lighting, compressed air optimisation, boiler tuning, heat recovery, process control improvements.
4	Switch to lower-carbon sources	Onsite solar, renewable electricity procurement, fuel switching where technically and financially feasible.
5	Engage value chain	Supplier emissions data requests, raw material efficiency, logistics optimisation, waste contractor data, traceability improvements.
6	Address residual emissions carefully	Only consider high-integrity removals or offsets for residual emissions after credible reduction actions and management approval.

10. Status definitions

Status labels must be applied consistently so management can identify delays, evidence gaps, and actions requiring escalation.

Status	Meaning	Required action
Not started	Action has not begun.	Confirm owner, timeline, dependencies, and resource needs.
Planned	Action has been approved but not yet implemented.	Monitor start date and dependencies.
In progress	Action is being implemented.	Track milestones, KPI updates, and evidence.
Completed	Action is completed and evidence is available.	Conduct closure and effectiveness review.
Delayed	Timeline has slipped.	Identify cause, revise timeline, and escalate if material.
Escalated	Management decision, budget, legal advice, customer input, or technical support is required.	Record decision, accountable owner, and revised roadmap item.
Verified	Completion and effectiveness have been checked.	Retain records for audit, reporting, customer request, or assurance.

11. Management review requirements

The Roadmap Builder should require management review at least annually. Quarterly review is recommended for Leading users, especially where the company has customer ESG requirements, climate targets, supplier due diligence obligations, or high-risk corrective actions.

Review area	Questions for management
Target progress	Are targets on track, delayed, unrealistic, completed, or requiring revision?
KPI performance	Are KPIs improving, stable, worsening, or affected by changes in production volume or data boundary?
Evidence readiness	Are actions supported by documents, records, calculations, approvals, and evidence locations?
Budget and resources	Are additional resources, training, systems, technical support, or capital investment needed?
Risk changes	Have customer, regulatory, supplier, labour, climate, or operational risks changed?
Corrective actions	Are audit findings, grievances, incidents, non-conformities, and supplier gaps closed?
Transition plan	Are climate, traceability, supplier, and operational transition actions still appropriate?
Reporting	What progress should be disclosed internally, to customers, in an ESG report, or in financing discussions?

11.1 Minimum management review record

- Review date, attendees, and approving authority.
- Targets reviewed and current status.
- KPI trends, data gaps, and evidence gaps.
- Completed actions and effectiveness checks.
- Delayed or escalated actions and decisions required.
- Budget, resource, training, system, or technical support decisions.
- Actions added, removed, merged, or revised.
- Next review date and accountable persons.

12. Roadmap Builder outputs

By the end of the process, Leading users should have a practical roadmap that can be used for management review, ESG reporting, customer responses, supplier engagement, and assurance readiness.

Output	Use
ESG Objectives and Targets Register	Formal list of ESG objectives, baselines, KPIs, target years, boundaries, owners, and evidence requirements.
Multi-Year ESG Roadmap	Short-, medium-, and long-term actions across material ESG topics.
Climate Transition Plan	Emissions baseline, reduction priorities, transition risks, and phased decarbonisation actions.
KPI Dashboard	Performance tracking against baseline and targets.
Milestone Tracker	Interim deliverables, deadlines, dependencies, and delay reasons.
Budget and Resource Plan	People, training, systems, technical support, capital expenditure, and operating expenditure.
RACI Matrix	Clear accountability across management, ESG team, departments, and data owners.
Evidence-Based Closure Checklist	Proof that actions are complete and verified.
Progress Reporting Table	Summary for ESG report, customer response, financing discussion, or management review.
Management Review and Approval Log	Evidence of oversight, decisions, escalation, and continuous improvement.

13. Fillable implementation templates

The following tables can be copied into a workbook or digital form. They are designed as minimum templates and may be expanded for company-specific requirements.

13.1 Roadmap setup template

Field	Entry
Company name	
Roadmap period	Example: 2027-2030
Reporting period	
Sites / business units covered	
Value chain scope	Own operations / suppliers / contractors / customers / selected Scope 3 categories
Prepared by	
Reviewed by	
Approved by	
Next review date	

13.2 Priority topic selection template

ESG topic	Why it matters	Priority	Include in roadmap?
		High / Medium / Low / Monitor / Not applicable	Yes / No / Under review

13.3 ESG objectives and targets register template

Topic	Baseline	Target	KPI / unit	Owner / due date
	Year: ____ Value: ____ Evidence: ____			
	Year: ____ Value: ____ Evidence: ____			
	Year: ____ Value: ____ Evidence: ____			

13.4 ESG action plan template

Action	Owner	Timeline	Resources	Evidence / status

Action	Owner	Timeline	Resources	Evidence / status

13.5 RACI matrix template

Task	Responsible	Accountable	Consulted	Informed
Data collection				
KPI review				
Evidence review				
Management approval				

13.6 Management review log template

Review date	Items reviewed	Decisions	Actions assigned	Next review

13.7 Evidence-based closure checklist template

Roadmap item	Evidence attached?	Reviewed by	Effectiveness checked?	Closure status
	Yes / No		Yes / No / Not yet	
	Yes / No		Yes / No / Not yet	
	Yes / No		Yes / No / Not yet	

14. Quality gates and implementation checklist

Before the Roadmap Builder is used for reporting, customer engagement, assurance preparation, or management approval, users should complete the following checks.

Quality gate	Pass criteria
Completeness	All material topics selected for roadmap have targets or documented monitoring rationale.
Baseline integrity	Performance targets have a baseline year, value, method, data source, and evidence.
KPI clarity	Each KPI has a unit, frequency, owner, data source, and dashboard field.
Ownership	Every target and action has a responsible owner and accountable approver.
Resource realism	Budget, training, systems, technical support, and internal effort are recorded where needed.
Evidence readiness	Each action has defined evidence required for closure.
Timeline realism	Immediate, short-term, medium-term, and long-term actions are sequenced with dependencies.
Risk escalation	High-risk, delayed, or customer-facing actions have escalation routes.
Management approval	Roadmap, targets, public claims, and major changes are reviewed and approved.
Continuous improvement	Lessons learned and recurring issues are captured and used to refresh the roadmap.

14.1 User completion checklist

Checklist item	Done?	Notes
Roadmap setup completed		
Priority topics selected and approved		
Baselines and evidence sources recorded		
Targets and KPIs entered		
Actions, owners, resources, and timelines entered		
Transition plan completed for climate-related topics		
Evidence requirements defined		
Dashboard reviewed		
Management review completed		
Next review date agreed		

References

This tool pack module was prepared as a practical implementation document for the MRC ESG Guidelines project. It draws on the structure and concepts in the following project documents:

- MRC ESG Guidelines (Draft) 20260601.
- MRC, Navigating ESG: A Practical Guide for Rubber Processors and Manufacturers in Malaysia, 03112025.
- MRC, The Low Carbon Transition Roadmap for Malaysian Rubber and Rubber Product Manufacturers: Thriving in a Net Zero Economy.
- ESG Checklist with guidance.xlsx.

Use note

This document is an implementation support tool. It does not replace applicable laws, customer requirements, certification requirements, formal audit requirements, external assurance, or professional advice.