NorthPeak Advisory

Supply Chain

Mapping & Decarbonising

A step-by-step approach to understanding and reducing your value chain emissions

A guide for ESG & sustainability teams

Corporate Sustainability Guide Series

NorthPeak Advisory

1. Why the Supply Chain Is the Biggest Opportunity

For most companies, Scope 3 emissions – particularly those from purchased goods and services (Category 1) – represent 70–90% of their total carbon footprint. This means that a company cannot credibly achieve net zero by focusing only on its own operations.

At the same time, the supply chain holds the greatest opportunity: engaging suppliers on decarbonisation can multiply your impact far beyond what internal efficiency programmes alone can achieve.

The business case is growing

Regulatory pressure (CSRD, CSDDD), customer requirements, and investor scrutiny are all increasing. Companies that map and decarbonise their supply chains now will have a competitive advantage – and avoid future compliance risk.

2. Understanding Your Supply Chain Tiers

Most supply chains are structured in tiers. Visibility typically drops sharply beyond Tier 1:

T0 YOUR OPS	**Who:** Your own facilities, assets, and operations **Key challenge:** Full control – this is Scope 1 & 2 territory
T1 DIRECT	**Who:** Companies you directly buy from (invoiced suppliers) **Key challenge:** Relationship exists – engagement is feasible; data collection is the challenge
T2 INDIRECT	**Who:** Suppliers of your suppliers – the sub-supply chain **Key challenge:** Limited visibility; often requires Tier 1 to collect on your behalf
T3+ RAW MATERIAL	**Who:** Commodity producers, miners, farmers, chemical producers **Key challenge:** Highest environmental and human rights risk; lowest visibility – sector initiatives often needed

3. Step 1 – Map Your Supply Chain

You cannot manage what you cannot see. Supply chain mapping is the foundation of everything that follows.

Spend Analysis

Start with your procurement data. A spend analysis categorises all purchasing by supplier and commodity type. It won't give you emissions data directly, but it tells you where the money flows – which is a strong proxy for where the emissions are:

- Export all supplier spend from your ERP or finance system for the past 12 months
- Categorise by UNSPSC, NAICS, or your own category taxonomy
- Apply spend-based emission factors (e.g. DEFRA, EPA, Exiobase) to get a first-pass Scope 3 Cat. 1 estimate
- Rank suppliers by estimated emissions – the top 20% typically account for 80%+ of impact

Geographic & Commodity Risk Mapping

Layer in risk data to identify where human rights and environmental risks are concentrated:

- Use tools such as Maplecroft, EcoVadis Risk Intelligence, or the OECD Risk Awareness Tool
- Identify high-risk geographies (e.g. cobalt from DRC, cotton from Xinjiang, palm oil from deforestation-risk regions)
- Flag high-risk commodity categories even where spend is low – a small spend on a critical mineral can carry significant risk

4. Step 2 – Prioritise Your Suppliers

You cannot engage every supplier simultaneously. Prioritise based on a combination of emissions impact, spend, and risk:

Priority Tier	Criteria	Engagement Approach
Strategic (top 20)	Highest emissions AND strategic relationship	Deep partnership: joint decarbonisation plans, shared targets, data sharing
High priority (next 30%)	High emissions OR high risk	Formal engagement: questionnaires, site visits, capacity building
Standard (remainder)	Lower emissions, lower risk	Code of conduct compliance, self-assessment questionnaires
Phase out / replace	High risk, low strategic value, unwilling to engage	Sourcing diversification; seek alternatives

5. Step 3 – Collect Emissions Data

Once you know which suppliers matter most, move from spend-based estimates toward more accurate data. This is a multi-year journey:

Data Quality Level	Method	Timeframe to Achieve
Level 1 (starting point)	Spend-based emission factors applied to procurement data	Achievable now
Level 2	Physical activity data (weight, distance, energy) × emission factors	6–18 months with data collection processes
Level 3	Supplier-reported data (GHG inventories, product-level data)	1–3 years with supplier engagement programme
Level 4 (leading)	Product carbon footprint (PCF) data from suppliers, verified	3–5 years for strategic suppliers

Platforms such as EcoVadis, Sedex, Supplier.io, or purpose-built carbon platforms (e.g. Carbonfact, Watershed) can help collect and manage supplier data at scale.

6. Step 4 – Set Supplier Expectations

Translate your net zero commitment into expectations for suppliers. This is increasingly standard practice among large buyers:

Minimum Standards

- Require suppliers to complete an ESG / sustainability questionnaire annually
- Include sustainability clauses in supplier contracts (human rights, environmental, anti-corruption)
- Require disclosure of GHG emissions data – initially self-reported, eventually verified

Ambitious Standards (for strategic suppliers)

- Require suppliers to set science-based targets (SBTi) by a defined date
- Conduct joint value chain mapping and decarbonisation planning
- Preference suppliers with validated targets in procurement decisions
- Share your own transition plan and invite suppliers to align

Supplier Code of Conduct

What a Supplier Code should cover

Environmental: GHG emissions, waste management, water use, biodiversity, compliance with environmental law

Social: No forced or child labour, fair wages, safe working conditions, freedom of association, non-discrimination

Governance: Anti-corruption, anti-bribery, transparent reporting, data protection

7. Step 5 – Engage & Support Suppliers

Mandates without support often fail – especially for smaller suppliers who may lack the resources or knowledge to respond. Leading companies invest in supplier capability:

- Run supplier workshops on GHG measurement and reporting
- Provide access to tools, platforms, or funded support for emissions calculations
- Create supplier sustainability networks and share best practice
- Offer preferential payment terms or co-investment for sustainability improvements
- Recognise and reward high-performing suppliers publicly

8. Tracking Progress

A supplier engagement programme without measurement is just activity. Track:

Metric	What It Measures	Target
% of spend covered by emissions data	Data quality progress	Increase year-on-year toward 100%
% of strategic suppliers with SBTs	Supplier ambition	SBTi recommends 67% of supplier spend by 2025
Scope 3 Cat. 1 absolute emissions	Actual impact	Year-on-year reduction aligned to your net zero pathway
Supplier assessment completion rate	Engagement coverage	>90% for Tier 1 strategic suppliers
Number of audit findings remediated	Risk management	Track closure rate and recurrence

The bottom line

Supply chain decarbonisation is a long-term programme, not a one-off project. The most important first step is spend analysis – it takes days, not months, and immediately shows you where to focus. From there, build a phased supplier engagement programme that grows in ambition as your data quality improves.