
Sustainable Supply Chain Leadership: Emissions Data, Circular Flows and Resilience Training Course

22 – 26 March 2027
New York





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Programme Summary

Sustainable supply chain leadership is the subject of this one-week training course for supply chain directors, logistics and operations heads and sustainability leaders at strategic level, ending in a sustainable supply chain roadmap for one network. Emissions, material flows and disruption now sit inside the same supply chain decisions, yet data and ownership are often split across functions. The programme moves from emissions baselines to network design, circular flows and resilience testing. Mars Training Centre UK delivers this programme on sustainable supply chain leadership to mixed-organisation cohorts.

The Business Case

Supply chains carry most of an organisation's emissions and much of its operational risk. Decisions on sites, modes, packaging and suppliers lock in both for years, so a plan that treats them separately tends to trade one problem for another. Leaders who count emissions on a common basis, test circular economy options and stress their network against disruption can set targets that operations are able to meet.

- Emissions Intensity: Falls as network and mode choices are tested against a common baseline.
- Material Cost: Reduces as returns, reuse and recovery replace single-use flows.
- Service Continuity: Holds as plans are stressed against disruption before commitment.

Principles and Evidence Base

- ISO 14083 Transport Chain Emissions Quantification: Sets a common basis for counting transport and hub emissions, applied in Sessions 1 and 2.
- GHG Protocol Scope 3 Approach: Classifies value chain emissions by category so baselines are complete and comparable, applied in Session 1.
- Material Flow Analysis Logic: Traces inputs, losses and recovery through a network to expose circular options, applied in Session 3.
- Scenario Testing Logic: Stresses plans against disruption cases before commitment, applied in Session 4.

Intended Participants

- Leaders who own supply chain strategy and approve network investments.
- Heads of logistics and distribution who choose modes, routes and sites.
- Operations managers who run production, packaging and returns flows.
- Sustainability leaders who report Scope 3 emissions and agree reduction targets.
- Finance partners who test the cost of abatement options.

Typical settings include retail, manufacturing, food and beverage and energy distribution.



Learning Outcomes

1. Participants will be able to construct a supply chain emissions baseline from supplier and logistics data.
2. Participants will be able to evaluate network and mode options against emissions, cost and service.
3. Participants will be able to design circular flows for returns, reuse and recovery.
4. Participants will be able to diagnose resilience gaps that threaten sustainability targets.
5. Participants will be able to prioritise abatement actions by cost and effect.
6. Participants will be able to justify a sequenced roadmap to senior decision makers.

Programme Structure

Day 1: Sustainable Supply Chain Leadership: Emissions Baseline

Where do supply chain emissions arise, and how are they counted consistently?

- Scope 3 Category Mapping
- Supply Chain Emissions Baseline Model
- ISO 14083 Transport Chain Calculation
- Supplier Emissions Data Request
- Data Quality Rating Sheet

Day 2: Network Design and Transport Choices

Which network and mode choices change emissions, cost and service together?

- Network Footprint Map
- Mode and Route Comparison Table
- Warehouse Location Trade-Off Matrix
- Load Factor Review
- Abatement Cost Curve

Day 3: Circular Flows and Material Loops

Where can returns, reuse and recovery replace a linear flow?

- Material Flow Map
- Circular Flow Design Canvas
- Reverse Logistics Route Sketch
- Packaging Loop Assessment
- Recovery Value Table



Day 4: Resilience and Supplier Collaboration

How do sustainability targets hold up under disruption and supplier limits?

- Disruption Scenario Test
- Single-Source Dependency Screen
- Supplier Collaboration Charter
- Climate Exposure Review
- Contingency Option Ranking

Day 5: Sustainable Supply Chain Roadmap for One Network

Do the earlier tools form one sequenced roadmap that leadership can fund?

- Applying the Session 1 Emissions Baseline Model
- Testing the Session 2 Abatement Cost Curve
- Reviewing the Session 3 Circular Flow Design Canvas
- Checking the Session 4 Disruption Scenario Test
- Completing the Sustainable Supply Chain Roadmap

Methodology

The programme uses a data workshop on one prepared network case with shipment records, supplier emissions returns, packaging data and a disruption log. Participants build each tool from the data, record their assumptions in a common format and compare results in small groups before applying the same tools to a network from their own organisation.

- Suggested activity: Building a baseline from incomplete supplier returns and rating its quality.
- Suggested activity: Comparing two mode and site options on emissions, cost and service.
- Suggested activity: Stress testing a roadmap against a port closure scenario.

Capstone Output

Each participant completes a sustainable supply chain roadmap for one network. It holds an emissions baseline, a ranked list of abatement actions, a circular flow design, a resilience test result and a phased plan with owners. The roadmap is used at work to brief the executive team and to frame the next network investment case.



Frequently Asked Questions

Is sustainable supply chain training suitable for leaders new to emissions data?

Yes. Sustainable supply chain topics are taught through a worked network case. The programme assumes supply chain or operations experience at managerial level, but no earlier carbon accounting role or technical background.

Which references does sustainable supply chain training rest on?

Sustainable supply chain training rests on ISO 14083 for transport chain emissions and the GHG Protocol Scope 3 approach, together with material flow analysis logic and scenario testing logic.

How is the roadmap from sustainable supply chain training used at work?

You use the sustainable supply chain roadmap to brief your executive team, frame the next network investment case and track emissions, circular flow and resilience measures against agreed owners.

How does sustainable supply chain training differ from sustainable procurement training?

Sustainable supply chain training centres on network design, transport, circular flows and resilience, while sustainable procurement training centres on buying policy, tender criteria and supplier standards.