Life Cycle Assessment Methodology and Tools Training Course

8 – 12 February 2027
Addis Ababa

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Ref: 846_224062 **Date:** 8 – 12 February 2027 **Location:** Addis Ababa **Fees:** 4500 Euro

Overview

Life Cycle Assessment Methodology and Tools Training Course is a one-week course for sustainability, environmental, engineering, product, operations, and ESG professionals, who leave with an LCA Study Workpack. Participants frame a decision, model inventory flows, select life cycle impact assessment methods, test LCA data quality analysis, interpret uncertainty, and report conclusions without overstating results. The approach combines standards-aligned method, tool selection, worked datasets, and review controls. Agile Leaders Training Center develops practical life cycle assessment methodology training capability.

Who Should Attend

- Sustainability functions responsible for product and operational environmental evidence
- Environmental management functions responsible for impact assessment and reporting
- Engineering and design functions responsible for materials and process choices
- Product functions responsible for specifications and lifecycle decisions
- Operations and supply-chain functions responsible for activity and supplier data
- ESG functions responsible for defensible performance information

The course assumes participants can work with spreadsheets, process information, and environmental indicators, and leaves out software administration, assurance certification, and advanced statistical programming.

Departments and Industries

The course supports departments and industries that evaluate environmental trade-offs across products, services, and operations.

- Sustainability, ESG, environment, and quality
- Engineering, product development, procurement, and operations
- Manufacturing, construction, energy, and utilities
- Transport, logistics, retail, and hospitality
- Consulting, technology, public services, and healthcare

Learning Objectives

By the end of this course, participants will be able to:

- Apply goal, scope, boundary, and functional-unit decisions
- Build life-cycle inventories from process and supplier data
- Compare allocation, cut-off, and system-expansion choices
- Evaluate life cycle impact assessment results and limitations
- Analyze data quality, sensitivity, and uncertainty
- Build a reviewed LCA Study Workpack for decisions

Course Agenda

Day 1: Frame the LCA Study

- Decision Context and Intended Application Canvas
- Goal, Audience, and Comparative-Claim Definition
- Functional Unit and Reference Flow Worksheet
- System Boundary and Lifecycle Stage Map
- Assumption and Critical Review Register

Day 2: Build the Inventory Model

- Process, Flow, and Product System Diagram
- Primary and Secondary Data Collection Plan
- LCA Inventory Modelling and Unit Checks
- Allocation, Cut-Off, and System Expansion Matrix
- Data Quality Indicator and Gap Register

Day 3: Assess Environmental Impacts

- Impact Category and Method Selection
- Classification and Characterisation Workflow
- Normalization and Weighting Decision Notes
- Software, Database, and Version Selection Matrix
- Life Cycle Impact Assessment Result Table

Day 4: Interpret and Test Results

- Contribution and Environmental Hotspot Analysis
- Completeness and Consistency Check
- Sensitivity and Scenario Comparison
- Uncertainty Range and Limitation Record
- Environmental Footprint Interpretation Brief

Day 5: Report a Defensible Study

- Exercise: Review Goal-to-Result Traceability
- Exercise: Challenge Inventory and Method Choices
- Exercise: Explain Trade-Offs and Burden Shifting
- Exercise: Draft Conclusions and Recommendations
- Capstone: LCA Study Workpack

Practical Exercises

The course uses suggested activities based on a product system with material, energy, transport, use, and end-of-life flows.

- Suggested activity: define the decision, functional unit, reference flow, boundary, scenarios, assumptions, and review needs.
- Suggested activity: assemble an inventory model, reconcile units, document sources, and score data quality.
- Suggested activity: compare impact results, hotspots, scenarios, sensitivity, uncertainty, and possible burden shifting.
- Suggested activity: prepare conclusions, limitations, charts, evidence links, and a management decision brief.

FAQs

Who suits life cycle assessment methodology training, and what does it assume?

Sustainability, environmental, engineering, product, operations, supply-chain, and ESG functions suit the course; it assumes comfort with spreadsheets, process data, units, and environmental indicators.

How does life cycle assessment methodology training differ from carbon footprint training?

LCA can examine several environmental impact categories across a defined product system, while carbon footprint training concentrates primarily on greenhouse-gas emissions. The study goal determines the appropriate scope.

What belongs in LCA inventory modelling?

LCA inventory modelling links processes and elementary flows to the functional unit, documents sources and assumptions, reconciles units, treats allocation and cut-offs, and records data quality and gaps.

How is LCA data quality analysis performed?

LCA data quality analysis evaluates time, geography, technology, completeness, precision, consistency, source reliability, and representativeness, then tests material gaps through sensitivity or scenarios.

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Why does environmental footprint interpretation include uncertainty?

Environmental footprint interpretation uses uncertainty and sensitivity to distinguish robust findings from results that depend on data ranges, model choices, impact methods, or scenarios.

Conclusion

Participants take back an LCA Study Workpack containing goal and scope decisions, a functional unit, boundaries, inventory mappings, data-quality records, method choices, impact results, sensitivity tests, limitations, and decision-ready conclusions. It changes disconnected environmental data into a traceable assessment. The workpack supports technical review, management discussion, supplier engagement, product improvement, and transparent reporting.