



# Training Course: Life Cycle Assessment

20 - 24 January 2025 Trabzon (Turkey)

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# Training Course: Life Cycle Assessment

Training Course code: PS235682 From: 20 - 24 January 2025 Venue: Trabzon (Turkey) - Training Course Fees: 5500 Euro

#### Introduction

Life Cycle Assessment LCA is a powerful analytical tool used to evaluate the environmental impact of a product, process, or service throughout its lifecycle from raw material extraction to disposal. This training program, designed by Global Horizon Training Center, equips participants with the skills and knowledge to implement LCA methodologies effectively. The program emphasizes sustainable decision-making and fosters an understanding of environmental, social, and economic impacts to align with global sustainability goals.

## **Objectives**

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

- 1. Understand the principles and framework of Life Cycle Assessment.
- 2. Identify and analyze the environmental impacts of processes and products.
- 3. Apply ISO 14040 and ISO 14044 standards for LCA.
- 4. Utilize LCA software tools for environmental impact assessment.
- 5. Integrate LCA findings into organizational decision-making for sustainability.
- 6. Communicate LCA results to stakeholders effectively.

## **Course Methodology**

- Interactive lectures with real-world examples.
- Hands-on activities and case studies to reinforce learning.
- Software demonstrations for practical application.
- Group discussions and brainstorming sessions.
- Expert-led Q&A to address specific challenges.



## **Organizational Impact**

Organizations that adopt Life Cycle Assessment gain:

- A structured approach to evaluating environmental performance.
- Insights for designing eco-friendly products and processes.
- Enhanced compliance with international sustainability standards.
- Reduced operational costs through optimized resource use.
- A competitive advantage by demonstrating commitment to sustainability.

## **Target Audience**

This course is ideal for:

- Environmental managers and sustainability officers.
- Product designers and developers.
- Engineers and process managers.
- Policy makers and regulatory bodies.
- Professionals in industries such as manufacturing, energy, and waste management.

## **Course Outline**

#### Day 1: Introduction to Life Cycle Assessment

- Definition and significance of LCA.
- Key concepts: Lifecycle thinking, sustainability.
- Overview of ISO 14040/14044 standards.
- The four stages of LCA: Goal and scope, inventory analysis, impact assessment, interpretation.
- Case studies: Examples from different industries.

#### Day 2: Goal and Scope Definition



- Setting the boundaries of an LCA study.
- Defining functional units and system boundaries.
- Data collection strategies and challenges.
- Allocations and assumptions in LCA.
- Workshop: Creating goal and scope for a sample product.

#### Day 3: Life Cycle Inventory LCI Analysis

- Data collection techniques for LCI.
- Managing primary and secondary data sources.
- Data quality and uncertainty analysis.
- Case study: Conducting LCI for a sample product.
- Hands-on exercise using LCA software for inventory analysis.

#### Day 4: Life Cycle Impact Assessment LCIA

- Environmental impact categories global warming, acidification, etc..
- Impact assessment models and characterization.
- Normalization, grouping, and weighting of impacts.
- Integrating social and economic dimensions into LCA.
- Practical session: Performing LCIA using software tools.

#### Day 5: Interpretation and Reporting

- Interpreting results for decision-making.
- Sensitivity and scenario analysis.
- Communicating LCA findings effectively.
- Developing strategies for improvement based on LCA.
- Final workshop: Comprehensive LCA study on a selected product.



## Registration form on the Training Course: Life Cycle Assessment

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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