# A Practical Guide to Conducting a Life Cycle Assessment

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Learn. Engage. Achieve.



# Learn about Life Cycle Assessment

Life Cycle Assessment (LCA) is an internationally recognised tool used to quantify environmental impacts of a product throughout its life cycle. By taking a systems perspective, LCA tools help businesses understand the flows of energy and matter involved in a product system, and can therefore be used to evaluate performance against a range of environmental indicators such as climate change, ozone depletion and marine toxicity.

LCA studies have diverse applications. They can be used for strategic planning, process improvement, green procurement or to demonstrate product claims. Whatever the motivation is to conduct an LCA study, this practical course will help you understand the LCA principles, methodology, data requirements and communication. It will help you future proof your product range and demonstrate your commitment to sustainability by aligning your company and products with circular economy principles and low-carbon transition.



# Highlights

- 1 half-day classroom session
- Practical exercises to test your knowledge
- Interactive sessions and Q&A with our experts
- Gain accredited CPD hours through the Royal Society of Chemistry
- Receive a copy of our course manual, summary handouts and course slides

# **Learning Outcomes**

At the end of this course, participants will:

- Understand the four-stage methodology employed by LCA studies
- Identify the most suitable type of LCA based on your product goals or organisations needs
- Understand how to build a life cycle inventory
- Be aware of the data requirements and limitations
- Appreciate the key benefits and challenges of undertaking an LCA
- Gain knowledge of how to use LCA to support your sustainability disclosures

# **Course Curriculum**

### Module 1. Introduction to Life Cycle Assessment

- Background
- Applications & Benefits
- Links to the Circular Economy and Regulatory Frameworks



## Module 2. Conducting an LCA: Scoping and Inventory Development

- Goal and Scope Definition
- Inventory Analysis

### Module 3. Waste and End of Life Treatment Considerations for LCA

- Introduction to End of Life (EoL)
- Supply Chain Interconnectivity and EoL Methods
- Evaluating EoL Allocation Methods

# Module 4. Conducting an LCA: Impact Assessment

- Mandatory LCIA Steps
- Optional LCIA Elements

### Module 5. Conducting an LCA: Interpreting and Communicating Results

- · Basics of LCA Interpretation and Reporting
- Uncertainty & Results Presentation
- Dissemination of Results

# Module 6. Integrating LCA with Sustainability Reporting

- Sustainability Reporting
- LCA and Sustainability Reporting

# Module 7. Performing an LCA: A Benchmarking Case Study

- Project Set-up (goal & scope definition)
- Scenario Set-up: Life Cycle Inventory (LCI) Development
- LCIA: Results & Comparison
- Interpretation: So which option is better?

# **Course Instructor**





**Damon Waterworth** joined Yordas Group after completing his Masters in Energy and Environment at Lancaster University. Damon leads the development and delivery of Life Cycle Assessment (LCA) and Management System and Auditing (MS&A) services.