

## **Professional Development Course**

### **Introduction to Life Cycle Assessment**

Sustainable consumption and production, the circular economy, carbon accounting ... these topics are increasingly on the agenda for decision-makers. They all utilise a life cycle perspective to reconsider economic activities through a “cradle to grave” lens i.e. from extraction of raw materials through manufacture, distribution, use and on to final end-of-life management. The quantitative analytical tool that supports this type of environmental management is Life Cycle Assessment (LCA), and LCA methodology also forms the basis of related approaches such as carbon and water footprinting.

This course will introduce you to life cycle thinking as a concept, and Life Cycle Assessment as an analytical tool to support environmental management. By the end of this short course you will be able to confidently commission an LCA study designed to meet the needs of a specific decision situation and be able to interpret its results to support decision-making. The course is intended for environmental managers, product designers, engineers, policymakers and other professionals interested in learning more about the role of LCA in guiding decision-making – but without any prior training in LCA.

#### **Course Outline**

##### **Session 1: Introduction to Life Cycle Thinking (LCT)**

- Role of LCT relative to other environmental management tools
- Principles underlying LCT and LCA
- Introduction to functional unit and system boundaries

##### **Session 2: Life Cycle Assessment, A Tool in the Environmental Management Toolkit**

- Aligning the LCA with the goal of the study
- Attributional and consequential modelling approaches
- LCA methodology: the four phases of LCA

##### **Session 3: Use of LCA To Support Decision-Making**

- Critical review of LCA studies
- Making the most of your LCA study: Environmental Product Declarations (EPDs) and certification schemes.

## About the Course Organiser

Professor Sarah McLaren is Director of the New Zealand Life Cycle Management Centre (NZLCM Centre), and Professor in Life Cycle Management at Massey University, New Zealand (NZ). Her research focuses on development and application of Life Cycle Assessment (LCA) and related approaches such as planetary boundaries, industrial ecology and the circular economy.

Sarah has promoted uptake of Life Cycle Management in New Zealand as a founding Committee member of the Life Cycle Association of New Zealand (LCANZ) and member of the Technical Advisory Group of the Australasian Environmental Product Declaration (EPD) Programme. She has served on the Office of the Prime Minister's Chief Science Advisor's Rethinking Plastics Panel, Ministry for the Environment's Planetary Boundaries NZ Advisory Board, and represented NZ on the ISO Water Footprint Working Group. She works with organisations such as the Building Research Association of New Zealand (BRANZ), BEACON Bioeconomy Research Centre Ireland, and the NZ Food Awards to translate Life Cycle Management into practical action.

## Timing and Cost

The course consists of three interactive one hour Zoom sessions to be held at 8.30 am on three consecutive Tuesdays. There will be two hours of additional learning exercises to be undertaken independently during the course.

The cost is \$400 (excl.GST) per person. If one organisation registers four or more people, the cost is \$350 per person.

## Practical/workplace requirements

The only requirement is access to a computer and the internet.

## Contact

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To register for the course contact the Course Administrator:

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