

INTERLABORATORY COLLABORATIVE STUDY ON LIFE CYCLE ASSESSMENT: FOOD AND PACKAGING SECTOR

Dear LCA Community,

It is rather clear to all of us that **LCA is subjected** to several factors that produce **variability in the results**. A similar problem arises in areas that are unrelated to Life Cycle Assessment (LCA), such as laboratory analyses.

Laboratory analyses and the data they provide typically have a significant impact, thus standardized and consistent results are necessary. In this field, proficiency testing programs have been used to standardize and compare laboratories' performances, collect feedback on reliability, and analyse potential anomalies.

To allow for a broader implementation of this virtuous approach, Mapping LCA decided to create and promote the "**INTERLABORATORY COLLABORATIVE LIFE CYCLE ASSESSMENT STUDY: FOOD AND PACKAGING SECTOR**".

The project aims to:

- assess and **define the factors causing variability** in the results of LCA studies;
- establish a **reference value** for LCA outcomes;
- determine **measurement uncertainty**;
- **evaluate** the **performance of LCA practitioners** (ensuring the complete **anonymity** of participants in all the proposed tests based on a PIN code protocol);
- **investigate** the impact of software and databases, allocations, and energy mix on LCA results.

The study will be conducted on **three simple case studies related to the food and packaging sector** and will be structured as follows:

- **test on food packaging**: LCA study on five levels, in sequence, carried out to evaluate the incidence of software and databases as variability factor (polymer, tray and film made with the same polymer, packaging made by sealing the film and the tray);
- **test on dehydration process**: a single study carried out to evaluate the incidence of energy mix as a variability factor;
- **test on pasta production**: a single study carried out to assess the incidence of allocations as variability factor.

We are looking for LCA practitioners to conduct the study. The call is open and free of charge for anyone who wants to increase their awareness of the elements that influence their practice and the outcomes of their LCA studies.

We are collecting applications from associations, companies, research centres and universities.

By participating in the study, the participants will receive a detailed final report and they will be able to evaluate their performance against the proposed case studies, using their unique PIN code.

The project is also aiming to create a **recognised LCA Expert Group at the international level**.

IN CASE OF DOUBT, OR IF YOU NEED ADDITIONAL INFORMATION, DO NOT HESITATE TO CONTACT US AT andrea.casson@unimi.it



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