

Environmental consulting – LCA

Who we are

Carbotech AG has been a reliable and innovative partner for companies dealing with environmental and business-related issues for decades.

In environmental consulting, we support organisations in understanding the impact of their products or services on the environment and identifying potential for optimisation. We use the life cycle assessment method to quantify environmental impact and provide our clients with a rational basis for decision-making.

Life Cycle Assessment

Life cycle assessment (LCA) is one of the most comprehensive and informative methods for assessing the environmental impact of processes, companies, products or services. An LCA takes into account, for example, the greenhouse gas emissions or resource consumption of a product over its entire life cycle. This life cycle includes the extraction of raw materials, production, transport, use, disposal and possible recycling or reuse phases. Depending on the assessment method, political framework conditions and social values are also taken into account.

The results of a life cycle assessment can then be combined with economic indicators to create eco-efficiency indicators. Life cycle assessments are often used with the aim of reducing the environmental impact of products or processes or to develop alternative solutions.

What we offer

Thanks to the broad scientific and practical background of our employees, we are able to develop environmentally optimised solutions for customers from a wide range of industries. We have expertise in specialized areas such as construction and housing, mobility, food and renewable materials, energy, information technology, recycling and waste utilisation, packaging, chemicals and pharmaceuticals.

ScreeningLCA



ScreeningLCA is suitable for an initial rough analysis of existing data. Depending on the question, the results are already so clear that a decision can be made and a more detailed analysis is unnecessary. ScreeningLCA is suitable as an entry-level module if internal questions are to be answered in an environmentally friendly and efficient manner.

CustomLCA



CustomLCA is ideal if the results are to be published or in order to answer complex questions that cannot be fully answered with existing data bases, thus requiring detailed data collection or the expansion of the assessment methods. This necessitates an in-depth technical understanding of the analysed systems and detailed knowledge of the fundamentals of assessment methods.

Environmental Product Declaration



Environmental Product Declarations (EPD) in accordance with ISO 14025 are based on the life cycle assessment approach and support customers who want to communicate the environmental performance of their products – independently assessed and certified.

Carbon Footprint



We support organisations in creating an action plan to help them achieve their vision. The carbon footprint shows the sum of all climate-relevant gases that a product emits over its entire life cycle. Depending on the issue, we use different standards for the calculation: PAS 2050, GHG Protocol, ISO 14 040 etc..

Research and Development



Our clients occasionally approach us with questions where life cycle assessment methods reach their limits. Recognising these limits and overcoming them with new approaches and developments is a challenge that we are happy to take on.

For example, we have developed an approach to model the benefits of repeated recycling and calculated the environmental benefits of a new approach to nitrogen depletion from liquid manure. Many innovations resulting from such assignments become research projects and are supported by the Federal Office for the Environment, among others.

We are also involved in the further development of the ecological scarcity method and determine new emission factors for emissions or resources that are not yet included in the method.

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