

LIFE CYCLE ASSESSMENT (LCA) AND ENVIRONMENTAL PRODUCT DECLARATION (EPD)

Life Cycle Assessment can provide answers on how sustainable a product or service is and enable comparisons of various environmental impacts. Ramboll's experts in LCA and EPD can help you regardless of whether you are producing plastic tanks, bitumen roofs or wind turbines, or whether you are going to help your residents reduce their climate impact.



Life Cycle Assessment (LCA) is a method for calculating the environmental impact of a product or service. The method is based fundamentally on the ISO 14040-44 standards but can be done in different ways and to different extents depending on the question asked. Life Cycle Assessment enable putting figures on the environmental impact and comparing products with each other to allow customers to make active choices, create added value for a product, or to evaluate climate risks in investments.

Ramboll perform LCAs at many different levels and for many different purposes:

- **Screening LCA** – A quick study which often could be conducted with limited budget where you want to compare, for example, the climate impact of two different materials or energy consumption.
- **LCA for buildings** – Including climate declarations for the upcoming Law on Climate Declaration of Buildings, or to score points in building classification systems such as LEED or BREEAM.
- **Carbon footprint** – A simplified LCA, where only the climate impact is calculated. This includes, for example, climate declaration for buildings, The Swedish Transport Administration's climate calculation for infrastructure, or calculations according to the Greenhouse Gas Protocol.
- **Comparative LCA** – A comparative LCA is often developed to compare a certain product with a competitor's product or a general product. It could also be used to compare a newly developed product with an existing product to see if the new product has a better environmental performance. These studies can have very different scopes depending on the complexity of the products involved.
- **Calculation tools** – Sometimes there are many different choices for actions, decisions, or communications, where the customer wants to be able to tailor the calculations after a specific outcome. In these cases, a customer-specific calculation tool could be developed where the customer could combine solutions to get quick feedback on performance.

Life Cycle Assessment can also be used as a basis for an environmental product declaration (EPD). The advantage of an EPD is that there are clear rules for how the LCA should be calculated and accounted for. For example, within construction products, there is a specific standard (EN15804) that specifies exactly what requirements are placed on calculations and accounting so that products can be compared correctly. This means that EPDs can be part of the requirements for procurement in all industries and be required as a basis when entire buildings are environmentally assessed.

Our offer

Ramboll provides services in all types of LCAs and EPDs and has experts with more than ten years of experience in making calculations and implementing projects. We work within all sectors and have assessed construction products, different energy production sources, clothing, air purification technology, sludge handling, batteries, waste prevention, recycling and much more. Ramboll can both offer separate projects such as developing an EPD to meet a direct customer issue, or within procurements and supporting your company's sustainability strategy in the long term. In the latter case, we often work together with the Ramboll Strategic Sustainability Team, who works with social issues and environmental management, or the Health Team that includes REACH, ROHS and other chemical issues to create comprehensive solutions for your sustainability.

Within EPDs, we develop declarations for all product types and for all EPD systems. We also offer third-party reviews of EPDs within the International EPD System, EPD Denmark and EPD-Norway as we have recognized LCA experts who are approved verifiers for these systems.

For more information please contact:

David Althoff Palm, Lead Consultant (Swedish, English, Danish and Norwegian)

david.palm@ramboll.se
+46 (0) 10 - 615 33 08

Yevgeniya Arushanyan, Senior Consultant (Swedish, English, Russian, Ukrainian)

yevgeniya.arushanyan@ramboll.se
+46 (0) 10 - 615 61 42

Jonathan Klement, Consultant (Swedish, English, German)

jonathan.klement@ramboll.se
+46 (0) 10 - 615 64 42