FRAUNHOFER INSTITUTE FOR BUILDING PHYSICS IBP

DEPARTMENT LIFE CYCLE ENGINEERING

Foundation

- 1926 (Inst.)/1989 (Dep.)
- Prof. Dr. Philip Leistner
- Prof. Dr. Klaus Sedlbauer

Turnover

- 29.4 million €

Employees

- 410 (Inst.)/25 (Dep.)

Field of activity

- National and International research projects
- Consulting projects for industry and associations

Key services

- Sustainability Assessment
- Life Cycle Assessment (LCA) including Economic (LCC), Social (LCWE) as well as Land Use and Biodiversity Assessment

Contact

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Fraunhofer IBP

Institute

We are a team of sustainability experts representing one core area within the Fraunhofer Institute for Building Physics. Coming from diverse professional backgrounds such as environmental engineering, mechanical engineering, civil engineering, economics, geoecology, agricultural science, architecture, and political science, together we form the department Life Cycle Engineering within the Fraunhofer IBP. Since the group was formed in 1989 by Prof. Peter Eyerer at Stuttgart University's Institute for Polymer Testing and Polymer Science, we have accumulated more than 300 person-years of experience. We also contributed to the development of the well-established GaBi software and its corresponding databases for Life Cycle Assessment.

Service

Our core competency is Life Cycle Sustainability Assessment of products in the environmental, economic and social dimensions. Based on our understanding of product life cycles, we help our customers understand the environmental, social and economic implications of the value chains in which they partake. We answer questions such as: What is the overall sustainability impact of my product? Which processes in the value chain contribute how much to the environmental, economic and social impacts of my product? How much leverage do I have over these processes? When developing the next generation of my product, how do I improve its sustainability most effectively and efficiently? How vulnerable is the value chain of my product to external factors like energy prices? Knowing the sustainability impact of my product portfolio, how do I work with this knowledge in my management system?

Industry branches

We work mostly with large companies, SMEs and government agencies, but are open to any customer who wishes to learn about the sustainability of products. In the quarter century since the inception of the department, we have worked with almost all major European automobile manufacturers, as well as some of the globally largest suppliers of chemicals, agricultural and biomass products, plastics, and metals. We have also worked with the electronics and construction industries. Our public clients include the European Commission, several German federal ministries, as well as state ministries of Baden-Württemberg. We are particularly well-equipped for studies of biomass products. Our dedicated "plant model" and "forest model" represent any given agricultural and silvicultural production process in Life Cycle Assessment. This allows our experts to address sustainability issues relevant for primary production of biomass at a great level of detail.

Our network

The department plays an active role in various UNEP-SETAC Life Cycle Initiative working groups. These groups foster LCA capability, harmonization and database access worldwide. Several of our experts are certified Life Cycle Assessment professionals registered with the American Center for Life Cycle Assessment.