

DF 71: Environmental Benchmarks for buildings and infrastructures: Needs, challenges and solutions

18 June, 2019, Zurich (in English)

The Paris agreement requires a significant reduction in greenhouse gas emissions. One of the priority sector is the building stock, as it is an important source of greenhouse gas emissions. COP23, IEA and increasing number of countries are extending their consideration from aspects such as building energy demand and emissions from building operation to building construction and the manufacture of construction materials.

This DF will allow participants to inform themselves on the state of activities and regulations on the environmental LCA of buildings and infrastructure projects in Switzerland, European and other foreign countries. The day will focus on two aspects:

- environmental benchmarks: How are they derived? What is their level of ambition (checked against, e.g. the Paris Agreement and planetary boundaries)? How much differentiation is needed/offered (new/refurbished buildings, different types of buildings, different climate zones)?
- national assessment methods: The results of a round robin test are presented by researchers from different countries assessing one single building with their national assessment approaches

This DF profits from the research activities of the IEA EBC Annex 72 "Assessing Life-Cycle Related Environmental Impacts Caused by Buildings".

DF 72: Normalization and weighting. The forgotten theme in LCA

9 September, 2019, Zurich (in English)

To draw the correct conclusions from LCA results can be a challenging task due to both the complexity of systems and the variety of environmental impacts that can lead to different results. Many LCA practitioners seek help in interpreting diverging results in different impact categories. However, considering that ISO standards do not declare normalization, weighting and grouping as compulsory, comparatively little scientific research on these steps is available.

This DF will show the present state of normalization and weighting in LCA. The statements in ISO 14040 are taken as baseline, concerning e.g. internal and external reference points and hints on interpretation.

A discussion of different weighting methods should shed more light on the uncertainties and differences of various monetary and non-monetary approaches (e.g. transparency, completeness, applicability). And how useful is the concept of the carrying capacity resp. planetary boundaries for aggregating indicator scores in this context?

In summary, the DF aims at a critical discussion and review of the available methods for normalization, grouping and weighting and seeks to demonstrate how the relevant information can be communicated to different types of stakeholders.

DF 73: Digital transformation: LCA of digital services, multifunctional devices and cloud data centres

November 21, 2019, **ZHAW Wädenswil** (in English)

Increasing digitalisation not only makes our daily life easier but also causes changes in the environmental impact of our activities. The substitution of material-based services with digital services – for example films or music – alters the environmental impact of our everyday activities and shifts visible material use to less visible digital services.

A holistic LCA of the transformation from material to digital services requires the assessment of information and communication technology (ICT) and takes into account new business models as well as emerging technologies. Modelling of digital services and multifunctional devices are complex and the choice of assumptions has a crucial impact on the final assessment.

A discussion of all these topics in the LCA-community allows the evaluation of different approaches for the assessment of digital transformation.

This DF will therefore cover the LCA of transformation to a digital society with its wide range of devices and technologies as well as summation effects caused by new services enabled by modern ICT.

Fees

(lunch included, videos and documentation included)

Annual pass (for all fora in 2019)

Standard fee: 700 CHF

For a single forum

Standard fee: 300 CHF

Reduced fee: 90 CHF for PhD students and students

Online access: 150 CHF

Registration

To register for the whole year or a single LCA Discussion Forum, please use the following link:

https://www.converia.ethz.ch/frontend/index.php?folder_id=376

To register you need to create a profile, which is done in very few steps and is self-explanatory. In case you are not able to pay by credit card, please send an e-mail to: lcaforum@ethz.ch with a short notice that you want to receive an invoice instead. Please provide the full invoice address as well as the chosen fee type.

For all questions regarding the registration process, please do not hesitate to contact:

lcaforum@ethz.ch

Call for short presentations

You work on a topic relevant to one of the Discussion Fora in 2019 and wish to present your findings? An "Open floor" session for short presentations will be available in each forum. Please contact the LCA Discussion Forum secretariat – the sooner the better.

Contact

For more information and to receive news on the LCA Discussion Forum, please contact the secretariat:

lcaforum@ethz.ch

Website

To download the full program and presentations and/or papers of past and future forums:

www.lcaforum.ch

Mission and organization

Mission

The LCA Discussion Forum is a platform for an exchange between LCA practitioners working in industry, consulting companies, administrations and LCA scientists. Each LCA forum is dedicated to a specific topic of immediate interest related to

- experiences and challenges with LCA application in industry and administration
- scientific questions in life cycle inventory and life cycle impact assessment methodology development
- dissemination of new scientific findings and results of relevant LCA studies.

Internationally renowned speakers are invited according to the topic to present their work. Each forum offers an "open floor" session for short presentations. The LCA forum is dedicated to people interested in the field of LCA, working in Switzerland and abroad. Its content is defined by its board. Proposals are always welcome.

Board of the Association

- Stefanie Hellweg, ETHZ/IFU (president)
- Arthur Braunschweig,
- E2 Management Consulting Ltd.
- Norbert Egli,
- Federal Office for the Environment (BAFU)
- Rolf Frischknecht, treeze Ltd.
- Gérard Galliard, Agroscope
- Roland Hischer, Empa



2019

Environmental Benchmarks for buildings and infrastructures: Needs, challenges and solutions

DF 71, June 18, 2019, Zurich

in English

Normalization and weighting. The forgotten theme in LCA

DF 72, September 9, 2019, Zurich

in English

Digital transformation: LCA of digital services, multifunctional devices and cloud data centres

DF 73, November 21, 2019, ZHAW Wädenswil

in English

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