73rd LCA Discussion Forum
Thursday, 21 November 2019

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

Location of this DF LCA:
ZHAW Wädenswil, Campus Grüental, Aula

The official language of this event is English

We cordially invite you to the **73rd Discussion Forum on Life Cycle Assessment** with the title "Digital transformation: LCA of digital services, multifunctional devise and cloud computing". The increasing digitalisation does not only make 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 life cycle assessment of digital transformation requires the assessment of information and communication technology (ICT) and takes into account possible substitution effects. Modelling of digital services and multifunctional devices are complex and the choice of assumptions for substitution has a crucial impact on the final assessment of digital transformation. The discussion of these topics in the LCA-community allows the evaluation of different approaches to the assessment of digital transformation.

This forum will cover the life cycle assessment of digital transformation with its wide range of devices and technologies as well as substitution and summation effects caused by new services enabled by modern ICT.

Participants can announce themselves for short presentations with their inscription. Please contact: René Itten (rene.itten (at) zhaw.ch) and Roland Hischier (roland.hischier (at) empa.ch) for proposing topics.

We look forward to meeting you in Wädenswil.

René Itten, Matthias Stucki (both ZHAW) & Roland Hischier (Empa)

Final Programme (as of 18 November 2019)

Time	Working Title	Speaker [Chair]
8:45	Registration, coffee & croissants	
9:00	Welcome and introduction to the day	René Itten, ZHAW Zurich University of A. …
	Digital transformation and environment	**[Roland Hischier, Empa]**
09:15	Digital sobriety and its implications on the environmental impacts of cloud computing	Hugues Ferreboeuf, the Shift Project, Paris
09:40	Ecological risks and opportunities of digitalisation	Lorenz Hilty, UZH University of Zurich
10:05	Digital media consumption and its environmental impact	Regula Keller, ZHAW Zurich University of …
10:30	Discussion	
10:45	Coffee break	
	Resource use of digitalisation	**[René Itten, ZHAW]**
11:15	Supply chain analysis of the ICT's global impacts and the importance of materials	Livia Cabernard, ETH Swiss Federal Institute of Technology
11:40	Energy implications of the move from TV broadcast to streaming	Chris Preist, University of Bristol
12:05	LCA of bioleaching in indium recovery from LCD-waste	Annemarie Falke, TU Bergakademie Freiberg
12:30	Discussion	
12:45	Lunch	
	Short Presentations	**[Roland Hischier, Empa]**
13:45	Data centre as driver for industrial carbon reduction	Louise Mattsson, RISE SICS North
13:55	Environmental assessment of cloud services in data centers – Methodological challenges	Ran Liu, Öko-Institut e.V.
14:05	Global Energy Footprint of IoT Semiconductors	Sujit Das, Oak Ridge National Laboratory
14:15	Supply chain transparency for coffee – what are the synergies between blockchain and LCA	René Itten, ZHAW Zurich University of Applied Sciences
14:25	Update of electronics in ecoinvent	Lucia Valsasina, ecoinvent
14:35	The LIFESAVING project – exploring environmental implications of service life extension of mobile devices	Yann Blumer, ZHAW Zurich University of Applied Sciences
	Multifunctionality and rebound	**[Matthias Stucki, ZHAW]**
14:45	Indirect effects of digitalisation on the environment	Jan Bieser, UZH University of Zurich
15:05	Learnings from Greenconcept – how to deal with multifunction-ality and data availability	Etienne Lees-Perasso, Bureau Veritas LCIE
15:25	Discussion	
15:35	Coffee break	
	Industry perspectives	**[René Itten, ZHAW]**
16:00	LCA of multifunctional devices, networks and digital services – an industry perspective	Jens Malmodin, Ericsson
16:20	LCA methodology challenges and opportunities for ICT products	Anders Andrae, Huawei Technologies
16:40	Discussion	
	Wrap up, announcements and farewell	
16:50	Wrap up and announcements	Matthias Stucki, ZHAW Zurich University of ..
17:00	Farewell	

Practical information

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?sub=90

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. Programme updates at: www.lcaforum.ch

For all further questions regarding the registration process, please do not hesitate to contact: lcaforum@ethz.ch
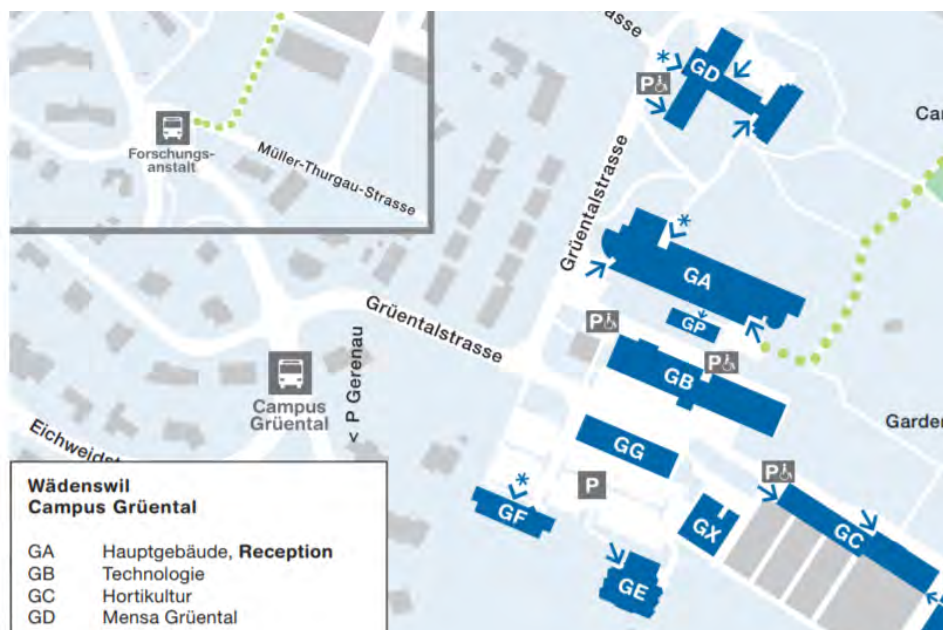
Lunch

Vouchers for lunch at the ZHAW restaurant will be provided to all participants. A vegetarian meal option is always on offer.

Location

Pay attention that this DF will **not take place at ETH** in Zürich, but in the main auditorium in the building GA of the Campus Grüental, Zürich University of Applied Sciences (ZHAW), 8820 Wädenswil.

https://www.google.com/maps/place/ZHAW+Life+Sciences+und+Facility+Management,+Campus+Gr%C3%BCental/@47.2190275,8.6792032,18.49z/data=!4m5!3m4!1s0x0:0x8a57b8c248ef7db4!8m2!3d47.2188986!4d8.6795436

For further information, please contact Barbara Dold: lcaforum@ethz.ch