



LCA Discussion Forum

Reduction of Building Embodied Impacts: Circular Construction

7th of May 2025, ETH Zürich

Presentations will be held in English

This LCA discussion forum brings together researchers, industry leaders, and policymakers to explore the role of life cycle assessment (LCA) in evaluating circular economy solutions to reduce embodied emissions in the built environment. Sessions will address critical themes such as insights from LCA case studies (e.g., material reuse and recycling), digital tools enabling circular construction (data governance, material passports), stakeholder needs (from construction companies and public building owners), and building stock modeling for assessing future scenarios. Discussions will emphasize methodological advancements, scalability of best practices, and integrating environmental impacts into decision-making. Through keynote presentations, panel debates, and short talks, the forum aims to bridge gaps between research, innovation, and implementation, fostering collaboration to accelerate the transition to a circular, low-carbon construction sector. Hosted by researchers from the Circular Future Cities project, this event promises actionable insights for achieving net-zero building stocks globally.

We look forward to meeting you in Zürich.

Shuyan Xiong and Carlo Schmid on behalf of the [Circular Future Cities project](#)
ETH Zürich

Programme (As of March 5th, 2025; all titles are tentative. The four sessions are independent)

Time	Title	Speaker [Moderator]
08:30	Registration	coffee & croissants
08:45	Welcome and introduction	Stefanie Hellweg, ETH Zürich
	Session 1: Insights from LCA case studies	
09:00	Does more circular mean more environmentally friendly?	Maja Wiprächtiger , realcycle
09:20	Franck-Areal - ReUse as a measure to meet the ambitious target values of the SIA climate pathway	Daniel Kellenberger , FHNW
09:40	Environmental Savings from Concrete Reuse: How Far Can We Cut?	Shuyan Xiong , ETH Zurich
10:00	Discussion	
10:20	Coffee Break	
	Session 2: Digital tools to support circular construction	
10:50	Data Governance for Circular Economy: A new way forward	David Bucher , ETH Zurich
11:10	From data templates to material passports and digital product passports	Meliha Honic , Strabag
11:30	Measuring circularity of buildings (beyond LCA)	Tajda Potrc Obrecht , TU Graz (online)
11:50	Discussion	
12:10	Lunch Break	
	Session 3: Policy-makers' and other stakeholders' needs	
13:00	CO ₂ data transparency in construction: why it matters and how to achieve it	Cinzia Estori , Hilti
13:20	From pilot to best practice – Zurich's pilots and rollout strategy	Niko Heeren , City of Zurich
13:40	A case study with the city of Baden: Modelling, potential and roadmap for promoting re-use to reduce embodied environmental impacts	Nadja Lavanga , intep
14:00	Discussion	
	Short Presentations	
14:20		
15:00	Coffee Break	
	Session 4: Building Stock Modelling, LCA, and Circular Construction	
15:30	Quantifying spatio-temporal material use patterns with machine learning	Carlo Schmid , ETH Zurich
15:50	AI-Driven Tools for Advancing a Global Resource Cadastre	Deepika Raghu , ETH Zurich (online)
16:10	How much does your city weigh? The building materials of 1.8 million human settlements	Tomer Fishman , Leiden University (online)
16:30	Discussion	
16:50	Wrap-Up	

Practical information

Please use the following link for registration:

<https://ethzurich.eventsair.com/lca2025/registration/Site/Register>

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.

Also for any further questions about the registration process, please do not hesitate to contact:

lcaforum@ethz.ch

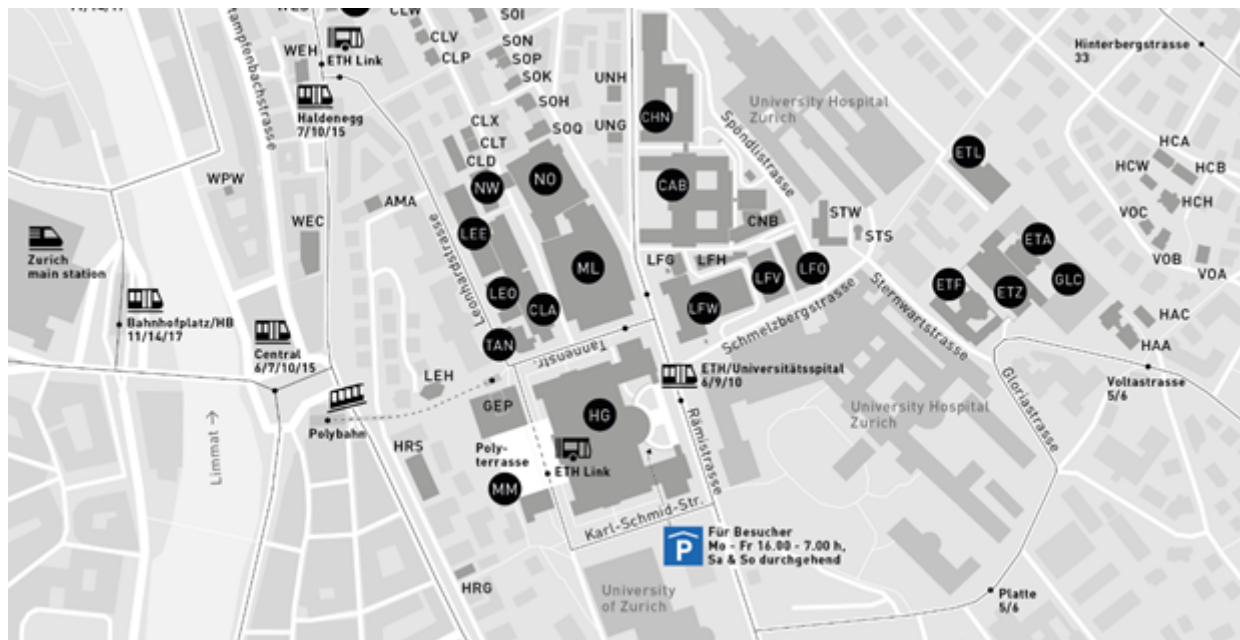
Lunch

Vegetarian lunch will be served close to the location. Vegan options are always on offer.

Location

The DF will take place in the **GEP Pavillion**, at Campus ETH Zentrum, ETH Zurich, Rämistrasse 101, 8092 Zurich (see map below). From the main train station, cross the river Limmat and use the "Polybahn" cable car.

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



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