

# **OSKAR VON MILLER FORUM**

Press Release

## **Aesthetics, construction and sustainability as one**

**Lecture by Tobias Huber, ZPF Ingenieure, Basel, on November 9, 2023 at 6:30 p.m. at the Oskar von Miller Forum and on [www.ovmf.de](http://www.ovmf.de)**

The construction sector is responsible for around 40% of global greenhouse gas emissions, the cement industry alone for 8%. Half of this comes from operation and use ("operational carbon"), the other half from the manufacture and production of buildings and building materials ("embodied carbon").

Since the first oil crisis in the 1970s, the focus in the building industry has been on reducing "operational carbon." In the future, it will be imperative to focus on the reduction of embodied carbon as well.

By means of Life-Cycle-Analysis (LCA), ZPF Ingenieure therefore already compares the materials and components to be considered for a project in the early project phases. In addition to the individual components, entire (assembled) components are also life cycle analyzed and compared with each other. Furthermore, the "design for disassembly" approach is considered essential for designing ecologically sustainable structures and buildings.

The best example of the measurable success of this approach is the HORTUS project - House of Research, Technology, Utopia, Sustainability, which is currently under construction near Basel and will almost halve the target value specified in the SIA Efficiency Path 2040. Interdisciplinary cooperation between all those involved in the project is essential from the outset in order to achieve such characteristic values.

Lecture in German

## **About**

Tobias Huber studied civil engineering at the University of Stuttgart and graduated in 2005 from the Institute for Lightweight Design and Construction ILEK under Prof. Dr Werner Sobek.

After successful positions as a project engineer and project manager at Dr. Deuring + Oehninger AG in Winterthur and as an associate at Knippers Helbig GmbH in Stuttgart, he joined ZPF Ingenieure in 2016. He has been a partner since 2019 and a member of the extended executive board since 2021. Tobias Huber is responsible for structural design and ecology, among other things, and oversees competitions and studies. He is currently leading the Hortus project in Allschwil, which is setting a new standard for sustainability.

Since 2019, Tobias Huber has been teaching as a lecturer in structural engineering at the Institute of Architecture at the University of Applied Sciences and Arts Northwestern Switzerland FHNW.

## **ZPF Ingenieure**

The structural engineers at ZPF Ingenieure advise and support clients and planning partners from the initial idea through all construction processes: competitions, design and implementation planning and construction supervision. They specialise in technically demanding large-scale projects such as museums, industrial buildings, hospitals and school buildings. High demands on architecture and technical quality lead to exceptional results.

Sustainability is a central concern here, because at ZPF Ingenieure, developing a supporting structure always means keeping an eye on resources and CO2 consumption.