



Open Innovation Challenge – Save the Date

## Digital Fabrication with Additive Manufacturing - Key for Innovation in Construction

Architecture and construction shape our lives, our environment and our culture. Our buildings give us a home, they protect us from the elements, but construction has a significant impact on the environment and our surroundings.

The massive use of raw materials and CO<sub>2</sub> emissions generated during the production and operation requires a rethink in planning and construction industry practices.

Additive manufacturing at the large scale enables solutions for material efficient buildings with improved performance, and bespoke design.

We plan to focus on the following fields of interest:

Design	Functionality	Material
<ul style="list-style-type: none"> <li>• fabrication informed design</li> <li>• geometrically optimized structures</li> <li>• performative buildings</li> <li>• bespoke design opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• integration of building services</li> <li>• modularity</li> <li>• assembly systems</li> <li>• lifecycle considerations</li> </ul>	<ul style="list-style-type: none"> <li>• large scale 3d-printing</li> <li>• robotic assembly methods</li> <li>• recyclable materials</li> <li>• natural materials (clay, wood...)</li> <li>• reusable parts and materials</li> </ul>

**Not your 1<sup>st</sup> choice? Let us know where you want to focus on!**

In our workshops (2 dates), you will discuss society and industry needs and develop ideas in interdisciplinary teams together with **experts from the Innovation Booster Additive Manufacturing, the specialists from the NCCR DFAB (ETH) and the NEST defab unit at EMPA. Additive manufacturing can make with your help an important contribution on the way to save resources and establish a new formal language.**

The best ideas will be funded for further work with up to **CHF 25k**.

<p><b>1st day: Challenge Framing</b></p> <p>Thursday, 7<sup>th</sup> of September 2023</p> <p>ETH Hönggerberg Stefano-Franscini-Platz 1, 8093 Zürich</p> <p><b>Content</b> Understanding the problems</p>	<p><b>2nd day: Ideation</b></p> <p>Thursday, 16<sup>th</sup> of November 2023</p> <p>EMPA, NEST Überlandstrasse 129, 8600 Dübendorf</p> <p><b>Content</b> Develop and presenting ideas</p>
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This workshop is open to experts from industry, economy, politics, society and academia. Participation is free. Number of participants is limited.

**Registration:**

<https://ibam.swiss/registration-oic/>

Registration deadline: 20<sup>th</sup> of August 2023

**Further information and Contact:**

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