



Preliminary design, images Stefan Wülser +

ETH Spin-off Oxara and leading organisations from the construction industry join forces: Construction of the sustainable pavilion MANAL

Together with multiple partners from the construction industry, the ETH Spin-off Oxara announces the start of construction of the MANAL pavilion in Horw. The project aims to create awareness and trust in novel building practices to achieve the goal of "Net Zero by 2050". The promotion of decarbonised construction is a valuable piece of the puzzle. Specifically, MANAL will be built using Oxara's innovative cement-free admixture and binder technology.

Cement-free admixture and binder technology "made in Switzerland"

The MANAL project is supported by a robust ecosystem of partners and collaborators. The project is sponsored by Swiss Prime Site AG, the City of Zurich, the Swiss Federal Office for the Environment (BAFU), the Swiss Climate Foundation and Holcim (Switzerland) AG. Lucerne University of Applied Sciences and Arts (HSLU) is providing architectural and scientific support for the project, while WaltGalmarini AG is contributing engineering expertise. Key implementation partners include Marti AG Bauunternehmung, KIBAG, ERNE AG Bauunternehmung, and Terrabloc. Further support comes from Küng Holzbau AG, Repoxit AG, MÜLLER-STEINAG Gruppe, and Zirkular GmbH. The Oxara AG is the project initiator and provides architectural and technical support as well as its cement-free admixtures and binders.

“We are delighted to be setting an example with this innovation together with renowned partners from the Swiss construction industry. For us at Oxara, MANAL is more than just a pavilion. It is a landmark for sustainability and circularity. A landmark that will have a positive impact on achieving the Net Zero goal by 2050 and our vision of enabling sustainable construction and affordable housing. After all, the sustainable solutions are right on our doorstep.”

Dr. Thibault Demoulin & Dr. Gnanli Landrou, founders of Oxara

Goal: promoting decarbonised construction and the circular economy

The MANAL project, which was initiated by ETH Spin-off Oxara in 2022, questions traditional building materials and demonstrates a material-conscious approach to construction. The 60m² building on the HSLU campus in Horw will serve as an exhibition and event space and will be used by the students from HSLU. The main components of the pavilion, including foundations, columns, walls, floors and vaults, are built using building materials based on the cement-free Oxara technology. Construction work began in late May this year and is expected to be completed in October 2024. MANAL is Arabic and means “a hard-earned achievement”.

The MANAL pavilion is more than just a structure; it symbolises a step towards circular economy and decarbonisation in construction and highlights the importance of collaboration and innovation to drive lasting change.

About Oxara AG

Oxara AG is a Spin-off of ETH Zurich and was founded in 2019 by Dr Gnanli Landrou and Dr Thibault Demoulin. The company has developed patented admixture and binder technologies aimed at decarbonising and promoting the circular economy in the building materials industry. Oxara's cement-free technology enables the reuse of waste materials such as excavation material or demolition waste and transforms them into low-carbon concrete and blocks. By eliminating cement, these building materials achieve a CO₂ reduction of up to 90% compared to conventional materials. The company's vision is to enable sustainable construction and affordable housing while preserving natural resources and biodiversity and combating climate change.

For more information, please contact us at: media@oxara.ch

www.pavilion-manal.com

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