

Press release | Fribourg, 12 July 2019

Team to design the future building of the Smart Living Lab selected

The group made up of Behnisch Architekten, Drees & Sommer Schweiz AG, and ZPF Ingenieure AG wins the Parallel Studies Mandate (Mandat d'études parallèles - MEP) launched in 2018 by Bluefactory Fribourg-Freiburg SA and the Smart Living Lab in order to define the project of the new iconic building of the research center located in the blueFACTORY innovation district, Fribourg. The winning project, named "HOP", was singled out amongst four proposals for its open, flexible, integrative and user-centric character, and for the experimental potential as its signature feature. It also has a remarkable environmental performance, due in particular to the use of wood as its main material. All projects will be presented during an exhibition from September 13 to 26 at the Smart Living Lab. The construction of the building will start end of 2020 in Fribourg, with a budget of 25 million francs voted by the State of Fribourg in 2018.

Resource-efficient, open, evolutive building

The panel of experts, chaired by Marilyne Andersen, professor at EPFL and academic director of the Smart Living Lab, met on July 1 and 2, 2019 in Fribourg, and unanimously chose "HOP", the project designed by Behnisch Architekten, Drees & Sommer Schweiz AG et ZPF Ingenieure AG, as the winner of the design competition launched in 2018 for the future building of the research center. Conceived as a living space offering experimentation capabilities, the chosen project won over the panel of experts not only with its evolutive characteristics, its spaciousness, but also with its open and inviting aspect, conducive to the desired environment within a living lab. Equally impressive are the project's economic and resource savings, while also responding to the strict energy and environmental requirements set for the competition.

Lively project

According to its authors, the building is designed around the core idea that it should be likened to a living organism, which interacts with its environment. Its façade integrates winter gardens which work as important connectors with the outside world, which contribute to the diversity of space typologies, and the quality of the work environment. The atrium brings people together thanks to its position and the integration of a staircase. The main lobby has bleachers, which allows for an informal use of the space. The cafeteria, close to the lobby, fosters interactions with the public. The project, described as "lively" by Philippe Jemmely, director of Bluefactory Fribourg-Freiburg SA, stands out for its potential to "manage tensions between opposite requirements: strong identity vs. flexibility, experimentation vs. robustness, generosity vs. simplicity".

Local resources and natural materials

The building will provide workspaces for close to 130 people over a 5000m² floor area, on four stories. Its main structure is made of timber. Wood is also used for a system of box slabs which integrates ventilation, and for the façade. The latter combines various species of wood according to their properties and their origin, paying particular attention to local timber.

Teamwork praised

In general, the panel of experts highlights the quality of all the submitted projects, as well as the involvement and the open-mindedness of all contenders, and the efforts provided throughout the MEP. The pluridisciplinary groups selected for this competition were

- Behnisch Architekten, Drees & Sommer Schweiz AG, ZPF Ingenieure AG (winner)
- Baumschlager Eberle Architekten AG, Dr. Lüchinger + Meyer Bauingenieure AG, Lauber IWISA AG, B+S AG
- estudioHerrerros SLP, Dr Schwartz Consulting AG, Transplan Technik-Bauplanung GmbH, Transsolar Energietechnik GmbH, xmade GmbH
- Itten + Brechbühl SA, CSD Ingénieurs

As a reminder, the process started with a meeting attended by all participants in December 2018, followed by two intermediate dialogues in February and April 2019, where conversations took place between the teams, preceding the final presentation of all projects on June 6, 2019. The winning team stood out particularly because of their collective intelligence, their ability to listen and their enthusiasm, and the integration of a close cooperation between architects and engineers.

Original competition

During the intermediate dialogues of the MEP, the contenders were able to learn about the other projects and freely exchange information about them with the panel of experts and their opponents. This original approach, as well as the ambitious goals of the future building stem directly from the research carried out within the Smart Living Lab.

A big step forward towards the construction of tomorrow

The Canton of Fribourg invests in education, research and innovation in the construction sector. Last year, its parliament voted a budget of 25 million francs for the construction of the building of the Smart Living Lab, which will be made available to research for at least 20 years. Bluefactory Fribourg-Freiburg SA will be the project owner.

The building will be considered at the same time as an object, context, and result of research. The research programme conducted by the Smart Living Lab since its creation in 2014 has produced knowledge and new tools to allow designers to achieve performance goals considering the entire life cycle of a building, including the carbon footprint of construction materials (embodied energy). This MEP procedure is the first one ever to require compliance with the target values of greenhouse gas emissions (13 kg CO₂/m²/year according to the SIA 2040/2017 norm).

The results of preliminary research, which were compiled in two books of the series *Towards 2050* published in May 2019, contributed to the elaboration of the specifications, considered as a real challenge by professionals. “The original procedure of this MEP and its ambitious requirements resulting from four years of research, proved to be a learning experience for all, participants and organizers alike, and a demonstration of the innovation capacity of the Smart Living Lab” says Marilyne Andersen, chairperson of the panel of experts.

Exhibition of MEP projects: September 13-26, 2019, Halle bleue, blueFACTORY

Vernissage and press conference: September 13, 2019, 13:15

About the Smart Living Lab

Founded in 2014 with the creation of an EPFL outpost in Fribourg, the Smart Living Lab is a research center for the future of the built environment, located in the blueFACTORY innovation district, a site affiliated to the Switzerland Innovation Network West. It brings together scientific teams from EPFL, the School of Engineering and Architecture of Fribourg and the University of Fribourg, an interdisciplinary hub of international outreach, offering full-scale experimental facilities in fields related to sustainable habitat: well-being and behaviors, construction technologies, interactions and design processes, and energy systems. www.smartlivinglab.ch

About Bluefactory Fribourg-Freiburg SA

Founded in 2014, Bluefactory Fribourg-Freiburg SA’s mission is to develop, build, promote, and foster community life in the blueFACTORY emerging innovation district. There are at present around 280 people working on the site from around forty entities (SMEs, startups, innovative players, and university research) promoting principles of sustainable development as well as those of circular economy. www.bluefactory.ch

Additional information

Contacts: **Olivier Curty**, State Councilor, Director of Economy and Employment, DEE
+41 26 305 24 02 *between 10h00 and 12h00*

Prof. Marilyne Andersen, EPFL Professor and chairperson of the panel of experts
marilyne.andersen@epfl.ch +41 21 69 30882

Philippe Jemmely, Director of BFF SA, *available as of 19.07.2019*
philippe.jemmely@bluefactory.ch +41 26 422 37 10

Yanick Jolliet, Architect and project manager BFF SA
yanick.jolliet@bluefactory.ch +41 78 829 98 93

Winning team:

- Behnisch Architekten, Drees & Sommer Schweiz AG, ZPF Ingenieure AG
Project: HOP

Other applicants:

- Baumschlager Eberle Architekten AG, Dr. Lüchinger + Meyer Bauingenieure AG, Lauber IWISA AG, B+S AG
- estudioHerreros SLP, Dr Schwartz Consulting AG, Transplan Technik-Bauplanung GmbH, Transsolar Energietechnik GmbH, xmade GmbH
- Itten + Brechbühl SA, CSD Ingénieurs

Composition of the panel of experts

Chairperson

Marilyne Andersen, professor EPFL, academic director Smart Living Lab (interne)

Members

Olivier Curty, State Councilor, Director of Economy and employment, State of Fribourg (internal member)

Clark Elliott, working spaces strategist, Genève (external member)

Flourentzos Flourentzou, Estia studio associate, Lausanne (external member)

Dominique Gauzin-Müller, architect and specialized author in sustainability, ENSA, Strasbourg (external member)

Urs Grossenbacher, associate INES Energieplanung, Morat/Berne (external member)

Laurent Guidetti, founder partner of TRIBU architecture, Lausanne (external member)

Philippe Jemmely, Bluefactory Fribourg-Freiburg SA Director (internal member)

Jeannette Kuo, associate of Karamuk*Kuo studio, Zürich, Harvard professor (external member)

Etienne Marclay, vice-president for Human resources and operations, EPFL (internal member)

Emmanuel Rey, professor and director of Laboratory of architecture and sustainable technologies, EPFL (internal member)

Deputies

Jean-Nicolas Aebischer, director, HEIA-FR (internal member)

Hanspeter Bürgi, associate of Bürgi Schärer, Berne - professor HES Berne (external member)

Odile Duchenne, director of Actineo (Observatory for the quality of life in the workplace), Paris, France (external member)

Pierre Gerster, delegate of real estate and infrastructures, EPFL (internal member)

Romain Kilchherr, associate environmental engineering studio Perenzia, Nyon (external member)

Olivier Allaman, Development Agency State of Fribourg (internal member)

Visuals

High-resolution images available here: <https://drive.switch.ch/index.php/s/7WcorrijzRZjNyzW>



Project HOP (winner), model.

© Behnisch Architekten, Drees & Sommer Schweiz AG, ZPF Ingenieure AG. Photo: Delphine Bläuer



Project HOP (winner), model.

© Behnisch Architekten, Drees & Sommer Schweiz AG, ZPF Ingenieure AG. Photo: Marilyne Andersen



Project HOP (winner), interior view.
© Behnisch Architekten, Drees & Sommer Schweiz AG, ZPF Ingenieure AG



Winning team: Behnisch Architekten, Drees & Sommer Schweiz AG, ZPF Ingenieure AG

© STEMUTZ