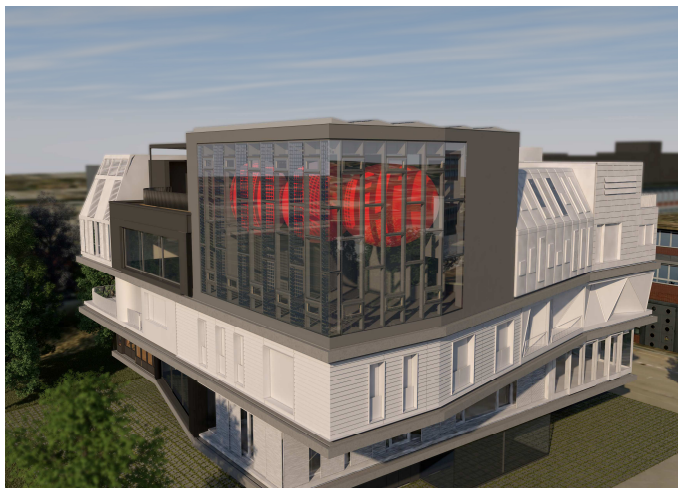


Headline:

Flying high



Introduction:

This NEST is going to yield some very special “offspring”: With the novel research project NEST, which was started in September 2014, the Eidgenössische Materialprüfungs- und Forschungsanstalt (Empa) from Switzerland wants to build a bridge between theory and practice – and together with renowned partners from the industry develop new, pioneering ideas for construction methods, lifestyles and dwellings of the future. Currently, the next module being developed is on the subject of wellness, in which KLAFS, the market leader for sauna, pool and spa, is involved as a development partner.

Text:

Schwaebisch Hall, September 2016. The plans are already very advanced: At a height of eight metres, large wellness-ellipsoids will float above the heads of the users and will envelop them like a cocoon. The fitness devices below not only steel the muscles, but also feed the energy generated by the

training activities of the visitors into the supply grid of the wellness system. On the façade, innovative high-performance solar panels will catch all solar radiation in hitherto unimagined levels of efficiency to capture the sun's energy for the power supply of the building. Special high-tech insulation windows will ensure that even when there are great temperature differences between the interior and the exterior, there will be a very low transfer of heat energy.

— 90 °C

The interior of the ellipsoids, which can be reached via bridges, is quite futuristic as well: What may seem like a “normal” sauna with a shower option in the visualisation is actually a test vehicle that is designed to gauge energy efficiency consistently, over several years, under realistic conditions. The ambitious objective behind this is that a sophisticated heat recycling concept is intended to provide optimal support for the named measures and thus reduce energy consumption by about 80 percent.

— 60 °C

“The NEST is not just a showroom for products that are already ready for the market, but a kind of enormous research lab in which people will live and work – while testing new ideas and materials down to the finest detail,” Mark Zimmermann, the innovation manager supervising the “Solar Fitness & Wellness” module, explains. The project's motto is meant to be taken literally: building the future together.

— 40 °C

It's obvious that – given such a visionary future-oriented project – the subjects of fitness and wellness, important megatrends of our time, may not be neglected. That is why Zimmermann, whose life's work has been in the service of science and who, in his own words, is a “fossil” at Empa (Eidgenössische Materialprüfungs- und Forschungsanstalt) from Dübendorf, which stands behind the NEST project, has even delayed his retirement to be able to shepherd the module, that he clearly cares deeply about, into existence. It was also Mark Zimmermann himself who selected the company KLAFS, the market leader in the area of saunas, pools and spa facilities, as a development partner for the sauna area. “The decisive factor for this was not so much the market leader position of KLAFS, but primarily the fact that the company has already been engaged in intense research on the subject of energy savings and has a range of

sophisticated solutions in this area. That is why we look forward to the joint research work," Zimmermann says, with an optimistic look at the future.

Stefan Schoellhammer, CEO of KLAFS, is already very excited about the NEST project and the results: "With our GREEN SAUNA and GREEN STEAM concepts, we've already achieved a great deal when it comes to energy savings in the sauna and steam bath sector. Our SOLARSAUNA concept was miles ahead of its time. Of course we are eager for this exciting research project to create new, marketable ideas for the future."

The chances of that happening are good indeed: The energy source for the fitness and wellness centre, which is projected to begin operation in spring 2017, is a central high-temperature CO₂ heat pump. "This device is capable of heating carbon dioxide up to 130 degrees with the help of solar power and without additional consumption of fossil-based energy. This means we can supply the heating register planned as a heat source for the sauna with water that's 120 degrees Centigrade warm," Zimmermann explains.

We're excited to find out if this is the future of the sauna heater. It wouldn't be the first time for KLAFS to revolutionise the market in this area – here are two things to keep an eye on: SANARIUM and TurboHeat.

Info box:

NEST – Building the future together



Close collaboration between research and industry, constant interaction with the users for a comprehensive assessment under realistic conditions – with the ambitious research project NEST, the Eidgenössische Materialprüfungs- und Forschungsanstalt (Empa) from Switzerland wants to build a bridge between theory and practice in a very special way. The NEST is a modular concept to which new modules keep being added; successfully completed modules are intended to be replaced. The project was successfully started in September 2014. Currently, the third module, “Solar Fitness & Wellness”, in which KLAFS is involved as a development partner for the “energy-efficient sauna” subject area. It is intended to commence operation in spring 2017. You can find out more about the NEST project and its background at <http://nest.empa.ch>

Further information is available at all times from:

KLAFS GmbH & Co. KG

Erich-Klafs-Straße 1–3, 74523 Schwäbisch Hall

Tel.: +49 (0)791 501-0, Fax: +49 (0)791 501-248

or on the website at www.klafs.com and www.klafs-s1.com

Captions

Image 1:

The plans for the new module in the NEST have come a long way. At a height of eight metres, large wellness-ellipsoids will float above the heads of the users and will envelop them like a cocoon. The fitness devices below not only steel the muscles, but also feed the energy generated by the training activities of the visitors into the supply grid of the building.

Rendering: 3D3W

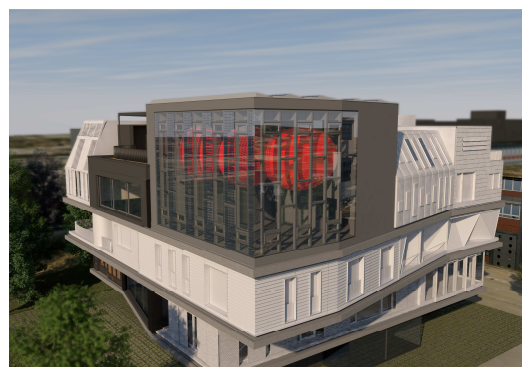


Image 2:

The interior of the ellipsoids, which can be reached via bridges, is quite futuristic as well. What may seem like a "normal" sauna with a shower option in the visualisation is actually a test vehicle that is designed to gauge energy efficiency consistently, over several years, under realistic conditions.



Image 3:

Passionate about his work: Mark Zimmermann, the innovation manager supervising the "Solar Fitness & Wellness" module (here in the hall of the NEST), has even delayed his retirement to be able to shepherd the module into existence.



Provided by:

Rendering exterior view of NEST: 3D3W

Rendering of sauna and photos: KLAFS GmbH & Co. KG

Publication free of charge when naming the source.

Download link for the high-res pictures:

<http://195.243.152.87/pindownload/login.do?pin=A31HA>