

Press Release 23 July 2020

24th International Passive House Conference



The Nuremberg zoo has turned its former hippopotamus enclosure into an energy-efficient walk-in terrarium that houses reptiles such as the helmet head gecko (I.) and beetles like the flattened giant dung beetle (r.). The retrofit of this listed building will be the topic of a presentation at the 24th International Passive House Conference.

Even zoos can be built sustainably!

Conference programme over three weeks - keynote of scientist Prof Stefan Rahmstorf

Darmstadt, Germany. Registration is now open for the 24th International Passive House Conference with the focal theme "Passive House – Building the future – Sustainably!" The renowned climate scientist Professor Stefan Rahmstorf will give a speech during the opening plenary of the conference, which will begin on 20 September 2020 and is being offered as an online event for the first time. Over the subsequent three weeks,



German climate researcher Professor Stefan Rahmstorf will give a speech at the conference launch. © Astrid Eckert

expert talks will be held online two days per week. The Conference will come to a close on 8 October 2020. The online format offers the opportunity to host the Passive House trade exhibition over three weeks. Virtual excursions of inspiring Passive House projects will be offered. The detailed conference programme is available on the conference website now; the early bird discount will apply until 10 August 2020.

German climate researcher and author Professor Stefan Rahmstorf will give a speech at the launch of the 24th International Passive House Conference. His lecture titled "Climate Crisis: What we know and what we can do about it" will take place on Sunday 20 September 2020. The oceanographer has been pointing out the consequences of climate warming for a long time. A welcome address to the conference held under the auspices of the Federal Ministry of Economics will be held by Thorsten Herdan, Head of the Department of Energy Policy.

Conference programme over three weeks

The 24th International Passive House Conference will stay true to its theme: "Passive House – Building the Future – Sustainably!" After the inauguration session, expert talks on climate-friendly construction and retrofitting to the Passive House Standard will be held every Wednesday and Thursday for three weeks. This way, participants will have the opportunity to attend several online lecture series. The lectures are scheduled in the mornings and in the afternoons (CEST) with two parallel sessions taking place at a time. Most lectures will be held in English, and lectures in German will be available with an English translation. "The online conference allows us to spread out the conference programme over three weeks. Impressive new builds and retrofits will be presented, among them several projects that incorporate the generation of renewable energy. All projects prove that it is possible to meet sustainability criteria", explains Jan Steiger, one of the Passive House Institute's managing directors.

Projects from around the globe



During the 24th International Passive House Conference, there will be presentations on Passive House projects from around the world. One of these projects is the X88 kindergarten in Beijing. © Yulin Liu.

The 16 different lecture 24th during series the International Passive House Conference will include presentations on Passive House districts and nonresidential buildings built Passive House to the standard, as well as multistorey Passive House projects. separate series will deal with Passive House projects worldwide: this will include presentations on a Passive House questhouse in the Swedish city of Gothenthe first Passive burg, House building in Thailand,



The Spanish company Victoria has been designing and producing shoes since 1915. Employees now work in the new Passive House company building in Arnedo in La Rioja. © Victoria

and projects in Spain and Canada. In addition, two lecture series will focus on Passive House projects in **China**, including a presentation on the X88 kindergarten for more than 600 children in the Chinese capital Beijing. **Retrofit projects** all over the world will also be presented at the 24th International Passive House Conference, including the retrofit of the Nuremberg Zoo's listed hippopotamus enclosure into an energy efficient walk-in terrarium, and the conversion of a former school building in Hamburg into an EnerPHit standard apartment block with 39 flats.

Summer comfort and education

Separate lecture series will deal with the topics of **summer comfort**, **cost-effective housing**, and **special solutions** for Passive House buildings. Yet another series of lectures will be dedicated to the topic of **education and professional training**. The online conference will also offer new possibilities for excursions: participants will be able to experience many Passive House projects around the world virtually.

Passive House exhibition open for three weeks

An important part of all International Passive House Conferences is the **specialist trade exhibition** in which international manufacturers present components for energy efficient construction and retrofits. This Passive House trade exhibition will also take place during the 24th International Passive House Conference. Here too, the online format offers the possibility of extending the exhibition period to three weeks. Contact with the manufacturers will be digital. Participants will be able to take part in guided tours through the exhibition and to direct their questions to exhibitors.

Early bird discount until 10 August 2020

Virtual rooms will be made available for further exchange and networking. The early bird discount will apply until 10 August 2020. The latest information on the 24th International Passive House Conference can be found at https://passivhaustagung.de/en/



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General Information

Passive House buildings

With the Passive House concept the heat loss that typically takes place in buildings through the walls, roof and windows is drastically reduced. With the five basic principles – high-quality thermal insulation, windows with triple glazing, avoidance of thermal bridges, an airtight building envelope, and a ventilation system with heat recovery – a Passive House building needs very little energy. Passive House buildings can therefore dispense with <u>classic</u> building heating systems. Such buildings are called "passive houses" because a major part of their heating demand is met through "passive" sources such as solar radiation or the heat emitted by occupants and technical appliances.

In a Passive House building the heat is retained for 10 to 14 days because it escapes very slowly. For this reason, active heating is needed only during extremely cold days and only a small amount of energy is required for providing this remaining heating. A Passive House building also offers an advantage in the summer: the excellent level of insulation ensures that the heat stays outside, therefore active cooling usually isn't necessary in residential buildings. Due to the low energy costs in Passive House buildings, the utility costs are predictable - a fundamental principle for affordable homes and social housing. A Passive House building thus consumes about 90 percent less heating energy than an existing building and 75 percent less energy than an average new construction.

Passive House & NZEB

The Passive House Standard already meets the EU requirements for Nearly Zero Energy Buildings. According to the European Buildings Directive *EPBD*, all member states must specify requirements for so-called NZEBs in their national building regulations. These came into effect in January 2019 for public buildings and will apply for all other buildings from the year 2021.

Pioneer project

The first Passive House in the world was built in Darmstadt-Kranichstein (Germany) 28 years ago by four private homeowners. Dr Wolfgang Feist was one of them. Ever since the homeowners moved in with their families in 1991, these terraced houses have been regarded as a pioneer project for the Passive House Standard. With its newly installed photovoltaic system, this flagship Passive House now utilises renewable energy and received the Passive House Plus certificate for this reason.

Passive House and renewable energy

The Passive House Standard can be combined well with on-site renewable energy generation. Since April 2015, the new building classes "Passive House Plus" and "Passive House Premium" have been available for this supply concept.



The world's first Passive House building in Darmstadt-Kranichstein. © Peter Cook

Passive Houses worldwide

Passive Houses buildings for all types of uses now exist everywhere. In addition to residential and office buildings there are also kindergartens and schools, sports halls, swimming pools and factories built as Passive House buildings. The first Passive House hospital in the world is currently being built in Frankfurt am Main. Interest in Passive House is growing. In view of the consumption of resources in industrialised countries and climate protection, municipalities, businesses and private people are increasingly implementing new constructions or retrofits to the Passive House Standard.

Passive House Institute

The Passive House Institute with its headquarters in Darmstadt (Germany) is an independent research institute for highly efficient use of energy in buildings. The Institute founded by Dr. Wolfgang Feist holds a leading position internationally with regard to research and development in the field of energy efficient construction. Among other things, Dr. Wolfgang Feist was awarded the DBU Environmental Prize in 2001 for developing the Passive House concept.



Prof Wolfgang Feist. © Peter Cook

International Passive House Conference

The 24th International Passive House Conference will take place from 20 September till 8 October 2020 in the form of an online event. https://passivhaustagung.de/en/

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