

Press Release

20 April 2017

Polar bear lends a hand to climate protection

10 facts about the Passive House Conference in Vienna – Energy efficient construction

Darmstadt, Germany/Innsbruck, Austria. At the end of April, the focus in Vienna will be on energy efficient construction and retrofits when experts from over 50 countries come together at the 21st International Passive House Conference on 28 and 29 April 2017. There will also be many offers for private persons so that they can learn more about the climate-friendly and cost-effective Passive House Standard. Here are ten facts worth knowing about the Passive House Conference and the accompanying specialist exhibition which will be held at the Messe Wien Congress Center.

Ice block competition

At present people passing by the Messe Wien Congress Center in Vienna can see for themselves how important energy efficient buildings are for climate protection. The Passive House Institute, together with the Passivhaus Austria network, the environmental protection organisation GLOBAL 2000 as well as the



Team work with a polar bear during the lowering of a mini Passive House over the 250 kilo ice block. This Ice Block Bet outside the Congress Center in Vienna highlights the importance of energy efficient buildings for climate protection. Pictures (2): Passivhaus Austria

campaign MOTHER EARTH, has built two different mini houses for the ice block competition. The **mini Passive House** has thick insulation and is equipped with triple glazed windows. The **conventional mini house** has only 8 cm thick insulation and double glazed windows. A 250 kilo block of ice has been placed in each mini house. Because the temperature inside the Passive House with better insulation is maintained for longer, the ice inside it will melt more slowly than the ice inside the less well-insulated house. The question that has to be answered is, how much ice exactly will still remain in both houses after six weeks?



Estimates for the ice block competition can be submitted online until 29 April 2017 here: <https://www.global2000.at/eisblock-wette>. The mini houses will remain in front of the Congress Center until the end of May. Among other things, those taking part can win a voucher worth € 500 for a stay in a Passive House Hotel in the Austrian holiday resort of Presseggersee-Nassfeld.

Vienna – that's why!

Millions of tourists can't be wrong: Vienna is one of the most beautiful cities in Europe and has a fascinating mix of exceptional architecture. What many tourists are not aware of is the fact that Vienna and the neighbouring federal state of Lower Austria are also considered to be prime examples when it comes to energy efficient construction. Need proof? Energy efficient high-rise buildings and hotels, multi-storey housing complexes, student dorms including PopUp dorms which can be disassembled and built up again elsewhere - all built to the Passive House Standard! This exactly is why the Passive House Conference 2017 is taking place in Vienna. Many of these interesting Passive House projects can be viewed during eight excursions.



Vienna registers more than 14 million overnight stays by tourists each year. The architectural mix and the special Viennese Flair is appreciated by all. © Pixabay

ÖkoEvent distinction for the Passive House Conference

We are very pleased that the 21st International Passive House Conference has been officially awarded the ÖkoEvent distinction by the city of Vienna. This award honours special efforts for the organisation of this event, including optimal waste management, careful use of water and energy, and the use of regional products that have been ecologically produced. In addition, it recognises the facts that preference is given to fair trade products and that importance is attached to environmentally friendly mobility throughout the event.



The Natural History Museum in Vienna is just as impressive on the outside as it is from the inside. This is where the big Passive House party takes place. © PHI

Passive House party in the museum

At the end of the 19th century, energy efficient construction did not necessarily define the spirit of the time; rather it was all about representative architecture. One example of this is the impressive Natural History Museum in Vienna. Gottfried Semper and Carl Hasenauer designed this "cathedral of the sciences" with the 60 metre tall dome – which has just the right atmosphere for a beautiful evening event, so our big Passive House party will take place here. The exhibition halls will be open to the guests during the party.

Passive House for all!

The cost-effective and climate-friendly Passive House Standard works in all climate zones, whether the region is warm or cold. Twenty-six years after the first Passive House was built in Darmstadt-Kranichstein, Germany, there are now Passive House buildings for a wide variety of uses and functions, whether residential buildings, schools, kindergartens or swimming pools. The first-ever Passive House hospital is currently being built in Frankfurt am Main, and a judiciary centre with a prison built to the Passive House Standard was completed in Korneuburg near Vienna. To reflect this diversity, "Passive House for all!" will be the main theme of the 21st International Passive House Conference.

Passive House basics course

Prior to the Conference, many workshops will be organised relating to energy efficient construction, including the basics course "Passive House – A Contribution to Climate Protection". Participation will be free of charge for students and representatives of municipalities. Further information on the conference website at www.passivehouseconference.org.



"Passive House for all!" is the main theme of the Passive House Conference in Vienna. Eight excursions to different Passive House projects are offered. © Markus Kaiser

Specialist exhibition

Wouldn't it be wonderful if the shower water which has been heated up with so much effort didn't just disappear down the drain and its heat could instead be utilised for some other useful purpose? Systems with which the heat from shower water can be recovered will also be presented at the specialist exhibition taking place parallel to the Passive House Conference, as well as particularly energy efficient windows and ventilation systems with heat recovery. A look at energy efficient and Passive House suitable components will also prove worthwhile for private persons as everyone can see for themselves the possibilities of energy efficient construction and retrofitting. **Free tickets** for the specialist exhibition can be printed out from the conference website at www.passivehouseconference.org.

First-hand experience

Yet another special offer at the 21st International Passive House Conference for all those who wish to build or retrofit a house in an energy efficient manner: in the Homeowners Forum on the second Conference day (Saturday), private homeowners will talk about their experiences with the construction of an energy efficient Passive House and what it is like to live in one. Private persons will thus receive first-hand information from private persons. **Free tickets** for the Homeowners Forum can be printed out from the conference website at www.passivehouseconference.org.

Excursions by bike and underground

In line with its distinction as an ÖkoEvent, two excursions to interesting Passive House projects in and around Vienna will take place in a particularly environmentally friendly way. In Excursion Number 1, participants will visit residential buildings and a student dorm via the underground, and in Excursion Number 8 participants will be able to engage in a sport activity at the same time: during a 30 km bike tour, participants will visit newly built and retrofitted residential buildings. Participants will be rewarded with a tasty lunch, as at all other excursions. We are delighted that this tour is so popular that it is already fully booked. Places are still available for other excursions at www.passivehouseconference.org.

Open the windows? Yes, please!

During the Passive House Conference, there will also be an opportunity to do away with old misconceptions. Of course one is allowed to open the windows in a Passive House! The difference is that they don't necessarily have to be opened because the ventilation system provides for a consistent supply of fresh air, and that with verifiably low power consumption. Thanks to the fine filter in the ventilation system, dirt and pollen also remain outside (take note, allergy sufferers!) and the quality of indoor air is excellent. Anyone who knows how to change the filter on a vacuum cleaner can also replace the filter of a ventilation system all by themselves. And: if the windows remain open too long in the winter, then the indoor temperature will fall and the heating consumption will increase. Is that any different from other buildings?

Further information can be found at www.passivehouseconference.org.

The 21st International Passive House Conference is supported by the following:

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SINFONIA stands for "Smart INitiative of cities Fully cOmitted to iNvest In Advanced large-scaled energy solutions" and is funded under the 7th Framework Programme for Research and Technological Innovation.

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General information

Passive House

A Passive House is a building that does not require any conventional building heating on account of its excellent thermal insulation. 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 waste heat from occupants and technical appliances. A Passive House thus consumes about 90 percent less heating energy than existing buildings and 75 percent less energy than an average new construction.

Passive House & COP22 in Marrakesh 2016

The United Nations Environment Program (UNEP) explicitly mentions Passive Houses as a key possibility to increase the energy efficiency of buildings and thus reduce global warming, => see "The Emissions Gap Report 2016", pages 32 + 35.

https://uneplive.unep.org/media/docs/theme/13/Emissions_Gap_Report_2016.pdf

Pioneer Project

The first Passive House in the world was built in Darmstadt-Kranichstein (Germany) 25 years ago by four private homeowners on their own personal initiative. 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. 25 years later, building physicists have attested to the unimpaired functioning of the first Passive House and its unchanged low heating energy consumption. With its newly installed photovoltaic system, the world's first 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 first buildings to be certified in these two categories include both private houses and office buildings.

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 the need to contain global warming, 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. Under the leadership of Prof. Dr. Wolfgang Feist, the Institute holds a leading position internationally with regard to research and development in the field of energy efficient construction. The Passive House Institute is the organiser of the International Passive House Conference and the accompanying specialists' exhibition.

Pictures for editorial purposes: www.flickr.com/photos/passive-house-institute

To get the latest news relating to Passive House, visit: www.twitter.com/IGPassivhaus

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