

## Press Release

21 October 2022



The Passive House certificate was presented to two Passive House buildings in Munich (top left & bottom right) and two in Argentina (bottom left and top right).  
© Passive House Institute (3); P. Massacesi (bottom left)

# Special feature: 4 x Passive House!

## Climate-friendly buildings take off: Passive Houses certified in Munich and Argentina

**Darmstadt/Munich/Buenos Aires:** Climate-friendly buildings are becoming increasingly popular: a higher energy efficient standard means lower energy consumption, resulting in lower energy costs and less carbon emissions. The Passive House Institute has registered a worldwide increase in projects. Certification is voluntary but plays a central role in quality assurance. The research institute in Darmstadt recently awarded Passive House certificates to four special projects: two multi-family complexes in Munich, Germany, and the first two Passive House buildings to be certified in Argentina.

### 1<sup>st</sup> certificate: Communal space on offer

Sustainability and community are important to the approximately ninety residents of the StadtNatur (translated “CityNature”) building community: StadtNatur has built thirty-four condominiums in Munich to the Passive House standard. In addition, there are three rentable flats and an office. The garden offers enough space for leisure activities and growing fruits and vegetables. Three feathered friends also roam through the greenery, attended to by the “working group chicken”. Cooking together, yoga, singing and TV evenings regularly occur in the cosy common rooms. The sauna and swimming pond are also very popular with young and old.



Together with Rena Vallentin (second from the left) of the architectural firm Vallentin, the Passive House Institute presented the certificate to Michael Konitzer (second from the right) and Christoph Dengler (right). The community invites people to visit the project during the **Passive House Open Days** from 11-13 November. **ID 6607** in the Passive House database. © Passive House Institute

### More than just a place to live

The joint building venture StadtNatur built its multi-family housing complex on wasteland near the edge of a forest in Munich. The group wanted the building to provide not only highly energy efficient and comfortable homes, but also a place for community. The infrastructure for communal activities was planned right from the start. Seventy-five meetings were held during the construction phase alone, which fell in the middle of the pandemic. Michael Konitzer is one of the four executives of StadtNatur. "We have really grown together into a great community. Even the people who were sceptical at first are now enjoying the joint activities that are on offer here".

### Insulation! Old banknotes!

The photovoltaic system on the roof is operated by StadtNatur itself. The residents established a civil law partnership for this. The public utility company of the city of Munich initially had to be convinced of the feasibility of this model, explains Michael Konitzer. Now everyone in the building benefits from the low internal price for electricity. In addition, there are eleven wall boxes installed for charging electric cars. One hundred sixty bicycle stands are also available. The insulation for this wood hybrid system Passive House building consists of cellulose: old shredded Czech banknotes. Heat and moisture recovery takes place via the ventilation system. The housing community is currently discussing how the energy efficiency of the heat pump can be improved. The residents invite anyone to visit the building during the **Passive House Open Days** from 11 to 13 November 2022.



Handover of the certificate for a "Passive House district" on a beautiful roof terrace. **ID 6190** © Passive House Institute

### 2nd certificate: Passive House district

All stakeholders agreed that the handover of the certificate should take place on the communal roof terrace of the Passive House district in Munich's Prinz-Eugen-Park. The residents of this ecological estate regularly come together here and in the adjacent common room. Thirty-six highly energy efficient housing units in eight buildings have been built here as timber constructions. An underground garage and ancillary facilities also belong to this complex, including a communal kitchen.

## Community and greenery

The entire Prinz-Eugen-Park in Munich was formerly a plot for military barracks and comprises around thirty hectares. Around 1,800 homes have been built here, six hundred of which are part of an ecological model housing development. The



© PHI

now-certified Passive House district is part of this. The roofs of these buildings are designed as roof gardens. A large proportion of rain-water seeps away and evaporates in the root zone of plants. High evaporation helps to alleviate summer heat in the residential environment. There is plenty of space for urban gardening in the neighbourhood.



The Passive House district consists of eight buildings and includes ancillary facilities such as a communal kitchen. © Passive House Institute



The Heidenreich family built a climate friendly new home in in Argentina. The Passive House Institute personally presented the Passive House certificate. ID 6939 © E. Heidenreich (top); PHI (bottom)

Heidenreich. This and the other certificate in Argentina were presented by Susanne Theumer from the Passive House Institute. The research assistant is currently travelling with her family by bicycle in South America. "Thanks to the good work of experts from the Latin American Institute for Passive House, a milestone has been reached here: the first two certified Passive Houses in Argentina. And more projects are on the way," Susanne Theumer says happily.

## 3<sup>rd</sup> certificate: Argentina is now included

It all started, when the Heidenreich family visited a Passive House building in neighbouring Chile. They quickly realised that their planned house in the Tigre Delta, about 30 km north of the capital Buenos Aires, should also be a highly energy efficient building. According to Erica Heidenreich, the family chose wood as the building material as it is easily obtained and fits in well with the surroundings. The roof is designed so that the sun does not shine on the walls in summer. Inside the house it is pleasantly quiet due to the triple glazed windows. "Of course, that's even more worthwhile in a city than here in natural surroundings, but we enjoy the silence here, too, especially when sleeping," says Erica Heidenreich.

## No longer subsidised

German-born Erica Heidenreich explains that energy use in Argentina is subsidised. "We were sure that it wouldn't stay like that. And indeed, changes have recently been announced. We are assuming that there will be greater interest in highly energy efficient houses in Argentina in the coming years," says Erica Heidenreich.

## 4<sup>th</sup> certificate: Argentina again

Paolo Massacesi's family business manufactures windows. As a certified Passive House Designer and president of the Latin American Institute for Passive House (ILAPH), Massacesi is familiar with the concept of high energy efficiency. For this reason, his own newly-built house in Mar del Plata, around 400 kilometres from Buenos Aires, was also designed as a Passive House building. "In Argentina, it is still a groundbreaking project to build a highly energy efficient building. We accepted this challenge. Now, among other benefits, we are enjoying a high level of living comfort with fresh air and uniform temperatures," says Massacesi. Visitors also praise the excellent indoor climate.

### Self-produced windows

The dedicated homeowner implemented the project together with his father and sister. They named their new home "La Dianita" in memory of his mother, says Paolo Massacesi. For the outside of the building exposed concrete and stone have been used, the insulation consisting of cellulose is eighteen centimetres thick. The windows were produced by his own company and are triple-glazed. "With this project, we are contributing towards climate-friendly construction and promoting the Passive House standard in Argentina," says Massacesi.



One of the first two certified Passive Houses in Argentina is located in Mar del Plata. Susanne Theumer (r.) from the Passive House Institute presented the certificate to Paolo Massacesi. ID 6934 © P. Massacesi (top); PHI (bottom)



## More certifications worldwide

The Passive House Institute has registered a significant increase in the total number of **certifications**: So far, more than 3.3 million square metres of floor space have been certified to the standards *Passive House* and *EnerPHit*. The EnerPHit standard is the highly energy efficient standard for retrofits. Quality assurance in the form of a certificate ensures that the requirements for the standards *Passive House* and *EnerPHit* have actually been met. Residents can then benefit from low energy consumption and a high level of living comfort.

### Europe ranks number one

Much is happening in South America with regarding high energy efficiency in buildings. "Of course we are pleased that we can now add Argentina to our **world map of Passive House activities**," explains Corinna Geiger of the Passive House Institute, who is in charge of building certification. This world map also shows that most of the certified projects are located in Europe. However, other regions are also gaining ground. All information on the **quality assurance of buildings** as well as the **building certification guide** are published on the **website** of the Passive House Institute.



## General information

**26th International Passive House Conference:** The #26intPHC will take place from 10 till 12 March 2023 in Wiesbaden, Germany. Online events will be offered additionally. [www.passivehouseconference.org](http://www.passivehouseconference.org)



**International Passive House Open Days:** Residents of highly energy-efficient buildings invite visitors to their homes. Visitors can experience the low energy need of the buildings and the comfortable indoor climate themselves. 11-13 November 2022. All viewing options [here](#).

**Passive House buildings:** With the Passive House concept, the heat loss that typically takes place in buildings through the walls, windows and roof is drastically reduced. By applying the five basic principles – 1. excellent thermal insulation, 2. windows with triple glazing, 3. a ventilation system with heat recovery, 4. avoidance of thermal bridges, 5. an airtight building envelope – a Passive House building needs very little energy. For this reason, Passive House buildings can dispense with a *traditional* heating system. 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.



Socially compatible and highly energy efficient: apartment blocks built to the Passive House standard. © Neue Heimat Tirol

**Advantages of Passive House buildings:** In a Passive House building, in winter the heat is retained for a very long time since it escapes very slowly. In the summer (and in hot climates), a Passive House building also offers advantages: among other things, the excellent level of insulation ensures that the heat stays outside, therefore active cooling usually isn't necessary in residential buildings (in Central Europe). Due to the low energy costs in Passive House buildings, the utility costs are predictable - which is a fundamental principle for affordable homes and social housing.

**Pioneer project:** The first Passive House in the world was built in Darmstadt, Germany, 30 years ago by four private homeowners. Professor 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.



The world's first Passive House building in Darmstadt, Germany celebrated its 30th anniversary. © Peter Cook

**Passive House and renewable energy:** The Passive House Standard and generation of renewable energy directly on-site or near the building is a good combination. The Passive House Institute has introduced the building classes *Passive House Plus* and *Passive House Premium* for this purpose. The world's first Passive House building in Darmstadt has also been producing renewable energy since 2015 by means of a subsequently installed photovoltaic system, and received the *Passive House Plus* certificate for this reason.

**PHPP:** The Passive House Institute has developed the planning tool Passive House Planning Package (PHPP) for calculating the energy balance of highly energy efficient buildings. The energy demand of the planned building can be calculated reliably using this Excel-based tool.

**Passive House Institute:** The Passive House Institute was founded by Professor Wolfgang Feist in 1996. The institute is independent and holds a leading position with regard to research and development in the field of energy efficient building construction and deep retrofits.



Prof. Dr. Wolfgang Feist  
© Peter Cook

**iPHA:** The network iPHA – international Passive House Association – is an important contact point for all those involved in construction. The aim is to convey knowledge relating to highly energy efficient construction and retrofits, as well as networking.

**Social Media:** Twitter: @the\_iPHA // Facebook: International Passive House Association  
Instagram: @passivehouse\_international // LinkedIn: @passive-house-institute

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