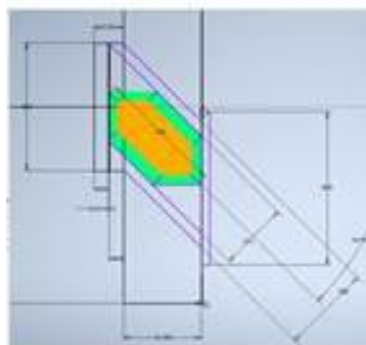
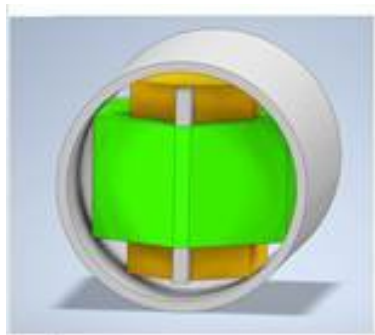


# outPHit enables façade-integrated ventilation

A special device for wall-integrated ventilation has been successfully tested and now facilitates deep renovation



## OUTPHIT

### PROJECT



Passivhaus Institut  
Rheinstr. 44/46  
64283 Darmstadt  
Germany

T. +49 6151 826 99 0  
mail@passiv.de

If the windows are replaced as part of the renovation, it is advisable to install them next to the window frame (left); If the façade has already been renovated, the heat recovery system can be retrofitted into the wall by drilling a core hole. (right) © University of Innsbruck.

***Innsbruck, 28 August 2024. A new device makes highly efficient ventilation with heat recovery possible even in existing buildings with limited space via integration directly in the façade. OutPHit project partner University of Innsbruck finalised the development of the device this summer and has now successfully tested it. The component provides a much-needed remedy, particularly for renovation projects lacking the space for the installation of conventional ventilation units. This means that the ventilation unit is already in exactly the right place, making additional wall openings for fresh and exhaust air are no longer necessary.***

"Who wants to sacrifice valuable living space for building services equipment?" asks Rainer Pfluger from the Energy-Efficient Construction department at the Uni-



versity of Innsbruck. “This new development makes high levels of comfort, outstanding indoor air quality and extensive reductions in ventilation heat losses with over 85% heat recovery feasible in even the most difficult deep renovation projects.”

Through the SINFONIA project, the University of Innsbruck was able to show that ventilation ducts can also be installed under wall insulation. Now within the framework of outPHit, the team was able to successfully integrate the units into (prefabricated) façade elements or into the window frame opening next to a window. The units are then connected to ventilation ducts (supply/exhaust air) under the thermal insulation to supply the neighbouring rooms. The cylindrical devices can be installed in a core drill hole, making them possible to use even if the building has already been insulated with ETICS.

### Ready-made devices or DIY

In recent years, an increasing number of innovative devices have been developed specifically for refurbishment. Flat devices for wall or ceiling integration now exist and devices that can be installed next to a window are now also available on the market, although these have, until now, typically been designed with new builds in mind. Through outPHit, adjustments were made that allow such solutions to also be used for renovation in line with passive house principles and the EnerPHit standard.

### MORE INFORMATION

- [Working Group Cost-Effective Passive Houses No. 61: Rainer Pfluger \(in German\)](#), Prefabricated Window Pre-Wall Installation with Air Ducting for Supply/Exhaust Air Heat Recovery
- [outPHit case studies online](#)
- [Information on the EnerPHit standard](#)

### CONTACT

**Rainer Pfluger**  
Universität Innsbruck  
+43 (0)512 / 507 63602  
[rainer.pfluger@uibk.ac.at](mailto:rainer.pfluger@uibk.ac.at)

#### OUTPHIT - COST-EFFICIENT AND RELIABLE IN-DEPTH RENOVATIONS

outPHit supports in-depth, cost-efficient and reliable renovations according to the Passive House principles. On the basis of model projects and with numerous partners, outPHit shows ways to implement far-reaching energy-efficient renovations. Solutions from a single source reduce the effort required for planning, execution and quality assurance. [outphit.eu](https://outphit.eu)

#### DEPARTMENT OF ENERGY-EFFICIENT CONSTRUCTION (EEB)

The Department of Energy-Efficient Construction was founded 16 years ago by Wolfgang Feist at the University of Innsbruck and has been researching and teaching in the entire range of energy-efficient construction ever since, from the building envelope to building technology. In recent years, the focus has shifted more and more from new construction to the area of renovation. This is not just about individual buildings, but about districts and settlement structures and their future decarbonisation. The interfaculty Research Centre [FOR SUSTAINABLE BUILDING](#) at the University of Innsbruck has also dedicated itself to this task. [uibk.ac.at/bauphysik](https://uibk.ac.at/bauphysik)

