

Dear manufacturers of Passive House components,

We are pleased to invite you to the **Component Award for Retrofitting with Passive House Windows**. This unique opportunity gives you the chance to develop innovative and efficient retrofit solutions, share your ideas with professionals from the industry, and establish yourself as a pioneer in research and development in the field of building renovation.

## Competition Details

The goal of this competition is to develop cost-effective and thermally optimized approaches for retrofitting using certified Passive House windows. The existing window is to be replaced, and the process can be carried out step by step.

Participants may decide whether to install the thermal insulation first or to replace the window first. It is important to note that no scaffolding should be required for the window replacement if the window is exchanged before the insulation is applied.

We are looking for innovative installation solutions for Passive House windows in existing buildings. Submissions may include either new installation concepts for already certified windows or newly developed components (e.g., frame adapters, pre-assembly elements). The aim is to make the installation process simpler, faster, and more energy-efficient.

We are particularly interested in solutions with a high degree of prefabrication which will be recognized accordingly in the evaluation. One of the key evaluation criteria will be the installation effort which will be assessed by a professional jury from the trades. The goal is to intervene as minimally as possible in the existing structure.

The innovative aspect refers to installation solutions that offer a high degree of prefabrication, simplify or shorten the installation process, and reduce thermal weaknesses (e.g., thermal bridges caused by installation).

We are hoping for new developments of window frames that can be installed in the load-bearing plane, while also reducing installation-related thermal bridges and allowing for step-by-step retrofit approaches. Solutions are especially needed for aluminium and PVC profiles, focusing on strengthening the frames and enabling effective over-insulation. Please also refer to the iPHA factsheet:

[https://passipedia.org/phi\\_publications/2025\\_vo1\\_extending\\_wall\\_insulation\\_over\\_window\\_frame](https://passipedia.org/phi_publications/2025_vo1_extending_wall_insulation_over_window_frame)

This technology-neutral competition aims to simplify construction processes, develop cost-effective solutions, and provide planning support for retrofit scenarios. The results will be made available in the Passive House Institute's component database to help counter any reservations about using Passive House components in existing buildings.

# Evaluation Criteria

Your ideas will be assessed based on the following criteria:

## 1. Efficiency

The improvement compared to the reference scenario will be quantitatively evaluated through thermal simulation. The thermal transmittance (U-value) of the glazing is predefined.

## 2. Installation Time and Degree of Prefabrication

A clear and comprehensible installation plan must therefore be submitted, along with information on the estimated installation time — ideally including solutions for industrial prefabrication (pre-assembled installation elements, membranes, etc.).

The competition is seeking window replacement concepts that demonstrate how retrofitting with Passive House components can be clearly understood and easily implemented in existing buildings.

Cooperative approaches are explicitly encouraged (e.g., window manufacturers, installation system suppliers, craftsmen, etc.)

## 3. Practicality

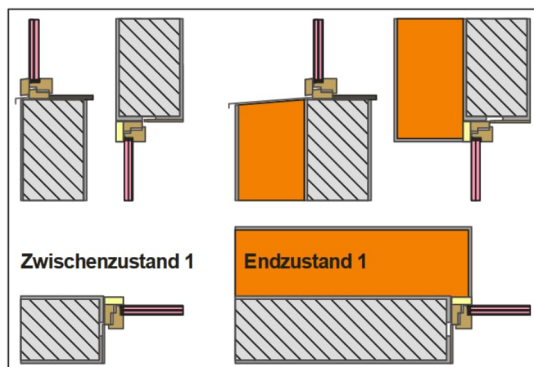
Resistance to driving rain and airtightness as well as the clarity and comprehensibility of the installation guidelines will be evaluated both quantitatively and qualitatively.

# Scenarios (Participation Options)

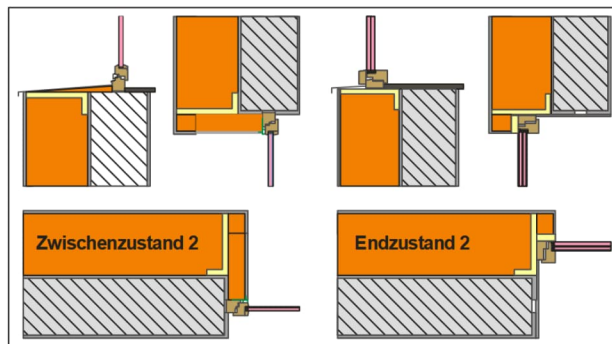
Reference Scenario: All submissions will be evaluated based on a shared reference façade which serves as the basis for comparison and assessment. For the purpose of the competition, this reference façade will be provided as a CAD drawing.

We will assess the submitted solutions in two categories of step-by-step renovation. Participants are to select one of the following renovation scenarios. Submissions that include integrated shading solutions will be evaluated in an additional category.

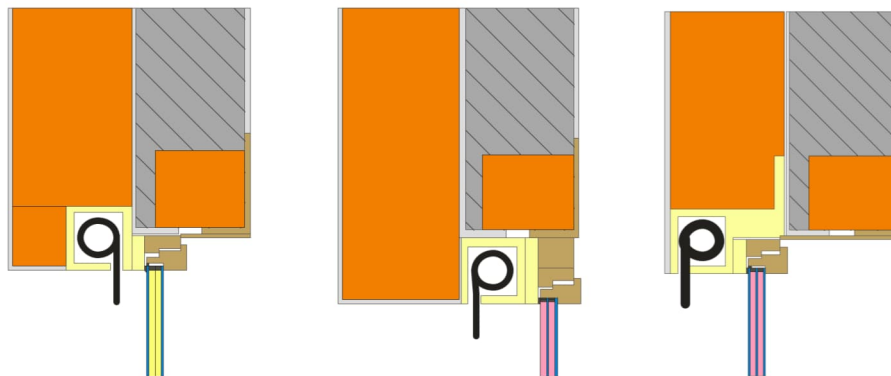
Scenario 1: Window replacement followed by subsequent insulation



## Scenario 2: Insulation followed by subsequent window replacement



Scenarios 1a and 2a: Alternatively, participation is also possible in combination with a shading system. For this purpose, a substitute construction (dummy) for the window may also be used. The reference situation remains unchanged



In all scenarios, intermediate states must also be illustrated (e.g., temporary coverings), and an airtightness concept must be provided. Driving rain resistance must be demonstrated. Participants using certified Passive House components will, upon successful evaluation and fulfilment of the relevant requirements, receive an EnerPHit component seal and an additional page for their certificate. This increases visibility in the database and supports planners in selecting suitable retrofit components. The criteria for EnerPHit windows can be found here:

[https://passiv.de/downloads/03\\_certification\\_criteria\\_transparent\\_components\\_en.pdf](https://passiv.de/downloads/03_certification_criteria_transparent_components_en.pdf)

Manufacturers with already certified components are exempt from the participation fee. Participants without certified products may choose to have their components certified as part of the competition, or have the performance values assessed by the Passive House Institute's components team for a moderate fee, depending on the evaluation effort involved (further details will be provided after registration).

## Submission and Contact

We look forward to receiving your innovative and creative ideas for this exciting design competition. Use this platform to showcase your vision for efficient and time-saving retrofit solutions.

The best entries will be awarded during the 2026 International Passive House Conference in Essen (Germany) and will receive an Award Seal, which will also be published in the Passive House component database.

Please register your participation by 15<sup>th</sup> October 2025 by sending an email to **components@passiv.de**, indicating the selected category and using the subject line "Component Award."

Once we receive your registration, you will receive detailed instructions, including the reference drawing, information on how to submit your documents, and more.

Should you have any questions, feel free to contact us at any time.

Kind regards,

The Components Team