

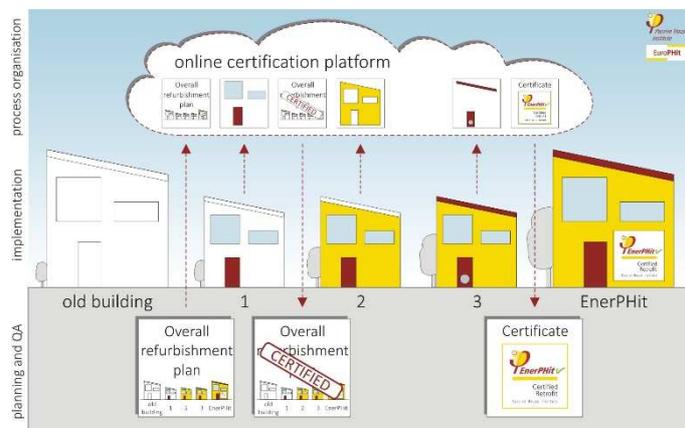
Press Release

20 November 2014

Award for concept of step-by-step building refurbishment

EuroPHit project relies on energy efficiency through quality assurance

Darmstadt, Germany. A concept developed by the Passive House Institute for the energy-focused modernisation of buildings has won first prize in a competition. The award jury especially lauded the approach of a "refurbishment road map" with appropriate individual steps. The concept was largely developed within the framework of the EU funded EuroPHit project. The intent is to provide both a certification of such "overall road maps" as well as an energy assessment of the individual refurbishment steps in the planning tool PHPP (Passive House Planning Package). The award was initiated by the Institute for Energy and Environmental Research in Heidelberg (ifeu).



Step-by-step refurbishment focused on energy efficiency – a schematic of the concept developed within the framework of the EuroPHit project

Illustration: Passive House Institute

At the core of this award-winning concept is a quality assurance process which starts with the planning phase. A limited budget, disruptions in building utilisation, or the varying life-cycles of individual components sometimes require that refurbishment be carried out in a step-by-step manner. Even with significant time intervals, individual refurbishment steps must be well coordinated with each other because subsequent reworking is almost always uneconomical. Only through coherent

overall planning will it be possible to avoid situations where, for example, the façade renovation makes subsequent window replacement difficult, or the roof overhangs are not sufficient for future insulation of the exterior walls. Building component connections that are airtight and where thermal bridges are minimised can only be implemented later if the positions of the insulation layers and the airtight level are specified in advance.

According to this concept, the individual modernisation steps are input into a new version of the PHPP which has been optimised for this purpose. Certification can take place if the

overall plan has been reviewed by a certifier accredited by the Passive House Institute and if the first measures have already been implemented; this confirms that the EnerPHit Standard for refurbishments will be achieved upon completion of the "road map". This analysis is thus a precursor to the actual certification of the building which may only be completed years later.

A total of 16 concepts and reports were submitted for the "Refurbishment Road Map" competition. In addition to the ifeu Institute in Heidelberg, the Institute for Housing and the Environment (IWU) in Darmstadt and the company Ecofys based in Cologne were part of the jury. An article with all other prize winners is published in the German specialist journal [GEB](#). A detailed description of the concept for the refurbishment of buildings in a step-by-step manner can be found on the EuroPHit project website: www.europhit.eu

Based on the Passive House principles and with the EnerPHit Standard for refurbishments as the objective, specific practical recommendations are developed within the framework of the EuroPHit project, which is funded by the European Commission's Intelligent Energy Europe programme (IEE). The project is based on the experience that most retrofits are carried out in a step-by-step manner – with good reason, because the windows may still be in good condition even though the façade is crumbling, and the roof may remain good for another 15 years when the heating system needs to be replaced. The focus of the project is on criteria and options for certification, financing schemes and market incentive programmes, training materials and energy balance tools, as well as new ideas for highly energy efficient building components, among other things. The theoretical findings will be directly applied in a number of example buildings.

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