Marketable Passive Homes for Winter and Summer Comfort

PASSIVE-ON

PASSIVE-ON aimed to build on the success of the Passivhaus concept by spreading the good word—and appropriate practice—towards southern and more moderate climates of Europe. A Passivhaus-compliant home consumes 80% less energy than one built to standard regulations, removing the need for conventional heating systems. The experience gained from building thousands of homes of this type in central Europe was passed on by creating guidelines and software tools for developers. Decision-makers and public bodies also benefited from strategies put together specifically for warmer climates, where the project has shown that it is not always necessary to use advanced technological solutions to build homes of high energy performance in these climatic regimes.

Results

- Design guidelines for comfortable low-energy homes were produced and made freely available on-line in 5 languages via the web-site. Download now directly from the web-site.
- A CD-ROM was produced for architects and designers. Distributed at workshops which attracted 700 participants across five countries. Download now directly from the web-site.
- The cooling algorithm and functions of the software for architects and designers was developed and incorporated in a new version of the PHPP Passivhaus Planning Package.
- A review of current national policies and new proposals for speeding up the spread of low-energy homes was prepared for policy makers.

Lesson learned

- Although the current Passivhaus definition is closely connected to German climatic, regulatory and other conditions, it is also a well-defined and certified product, which owners and builders understand. By exporting the Passivhaus standard to southern Europe we aim to export the success factors of the standard, not the specific "German" solutions as such.
- Analysis has shown that the German Passivhaus concept (high insulation, lack of thermal bridges, active ventilation with heat recovery) plus additional features for limiting and removing heat gains (for example window shading, night time ventilation of thermal mass) can provide conformable low energy homes in large parts of southern Europe.
- Designing very low energy buildings requires that the energy balance of the building to be well defined and understood. Though written guidelines can direct the choice of solutions at the crucial early design stage, the design of successful very low energy will always require the designer to calculate the building energy balance.
## Partners and coordinator

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## Budget

Overall budget: 714.000,00 € (EU contribution: 50,00 %)

## In brief

Sector: Buildings  
Duration: 01/01/2005 to 30/09/2007  
Contract number: EISAV/EIE/04/091/2004  
Website: http://www.passive-on.org

Tags:
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