C4E Forum - Presentation Outline

Multiple benefits with NZEB design

Active House as tool to empower owners to build to NZEB level?

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Introduction

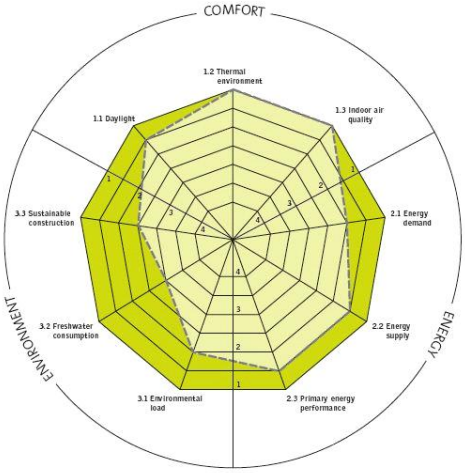
- Active House is a vision of buildings that combines energy efficiency with specific attention to user's health and comfort. It includes design guidelines, specifications and evaluation tools, and focus on parameters that has relevance and direct influence on the qualities for the homeowners.

Background

- In order to empower house-owners, architects and professional house builders to design sustainable buildings; the Active House alliance has developed tool and label, that can be given to projects that focus on combining requirement to building design with people's concerns regarding comfort, health, energy, safety and environment.

Strategy

- The buildings are evaluated on the combination and integration of the three main principles of Comfort, Energy and Environment.
- The evaluation must be done in accordance with specifications and the performance are described through the Active House Radar showing the level of ambition.
- Consumers and homeowners will get an easy and simple overview of all the benefits.



Tools

- Buildings must be evaluated and benchmarked on the nine sub parameters, (Daylight, Thermal Comfort, Air quality, Energy demand, Energy supply, Primary Energy, Environmental load, Freshwater, Sustainability).
- Each of them is evaluated in accordance with international standards, like EN15251, ISO14040 as well as national standards and methodologies for i.e. energy demand.
- Some of the parameters are included in building legislation and in this sense, the methodology used on national level can be reference.

Proof

- It is already proven that environmental schemes like BREAM, LEED, DGNB has moved the focus on energy use to a more holistic view on sustainability, which include parameters like indoor climate, sustainability, sourcing and energy efficiency.
- However many existing programs for environmental benchmarks of buildings are developed for larger scale buildings and have – due to complexity and costs - limited relevance for single family homes and small buildings.

Comparison

- Several projects will be presented and compared including projects from Ukraine.
- It will be shown how schemes like the EU energy label, do need more information's and how sustainable lables can be more valuable for designers.

Goals

- The goal of the presentation is to present and discus the value of labelling schemes to motivate consumers and homeowners to require more sustainable and energy efficient buildings.

Conclusions

- By implementation of a simple systems which cover the main sustainable parameters, like Active House and other similar systems, the awareness and utilization of sustainability for small and medium size buildings grow.