Sustainability Evaluation of Retrofitting and Renovation of Buildings in Early Stages

Research on the barriers for building renovation in Denmark has revealed that an important obstacle is a lack of simple and holistic tools that can assist stakeholders in decision-making during the early stages of projects (pre-project phases). The purpose of this paper is to present preliminary research results and ideas for the development of a tool, which can be used as decision support for renovation projects in early stages. The research is part of the Eracobuild project ACES – “A concept for promotion of sustainable retrofitting and renovation in early stages” with participants from Denmark, Sweden and Cyprus. This paper is mainly based on a work package concerning benefits of restoration. The approach has been - after a literature review - to start by conducting a needs and stakeholder analysis with 10 interviews. Based on this initial analysis a requirement specification for the decision support tool has been formulated and an outline of a preliminary evaluation tool has been developed. The results of the needs and stakeholder analysis, the requirements specification and the outline of the evaluation tool have been presented and discussed with a group of main stakeholders at a workshop. The target group for the tool is the professional sector. Some of the main requirements are that the tool shall be a basis for dialogue among building professionals and building users and support formulation of objectives for renovation projects. It should also be usable for comparing alternative project proposals and to follow-up on a project and assess the results. The tool will cover the four main parameters: Environment, users (satisfaction), organisation (including competences), and economy (in a wide sense). Evaluations will be subjective, but based on facts and arguments. The different stakeholder’s different evaluations will be presented as part of the results.

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Contributors: Jensen, P. A., Maslesa, E., Gohardani, N., Björk, F., Kanarachos, S., Fokaides, P. A.
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