

Master thesis at Building Technology

Title

Energetic building refurbishment in Eastern Europe

Background

The importance and potential of reducing CO₂ emissions in the EU building sector is rarely questioned, and has been shown in various studies. The impact is mainly through the renovation of existing buildings, which offers significant potential for both cost effective CO₂-mitigation and substantial energy consumption reduction. At the same time, measures to increase energy efficiency in buildings support several other important societal and individual goals, such as increased employment and a boost to economic activity, improved quality of life, reduction of fuel poverty and better security of supply with its lower dependence on imported (fossil) fuels. In its "Roadmap for moving to a competitive low carbon economy in 2050" the European Commission established a long-term objective of decreasing the CO₂-emission levels for the building sector by 88%-91% in 2050, compared to 1990 levels. In order to achieve this target, which is also a prerequisite for meeting other EU economic and climate goals, the EU especially needs to tackle the existing building stock and reduce its energy use in the long term. A lot of scientific studies and ambitious refurbishment activities have been conducted and carried out in Western and Southern Europe in this regard but very little is available regarding Eastern Europe, although the improvement potential in this building stock seems to be large as well.

Aim/Purpose

The aim of the Master thesis is to depict the current situation in some selected Eastern European countries. More precisely the barriers for energetic refurbishment should be identified, best practice examples collected and possible ways to overcome these barriers explained.

Method

After a decent literature study the following work may be carried out:

- Provide an overview of the building stock in selected Eastern European countries regarding age, energy demand, energy carriers for heating and cooling etc.
- Identifying the main barriers for energetic refurbishment for different types of buildings
- Gathering information on successful refurbishments and their success factors
- Interpretation and recommendations

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