



MODER



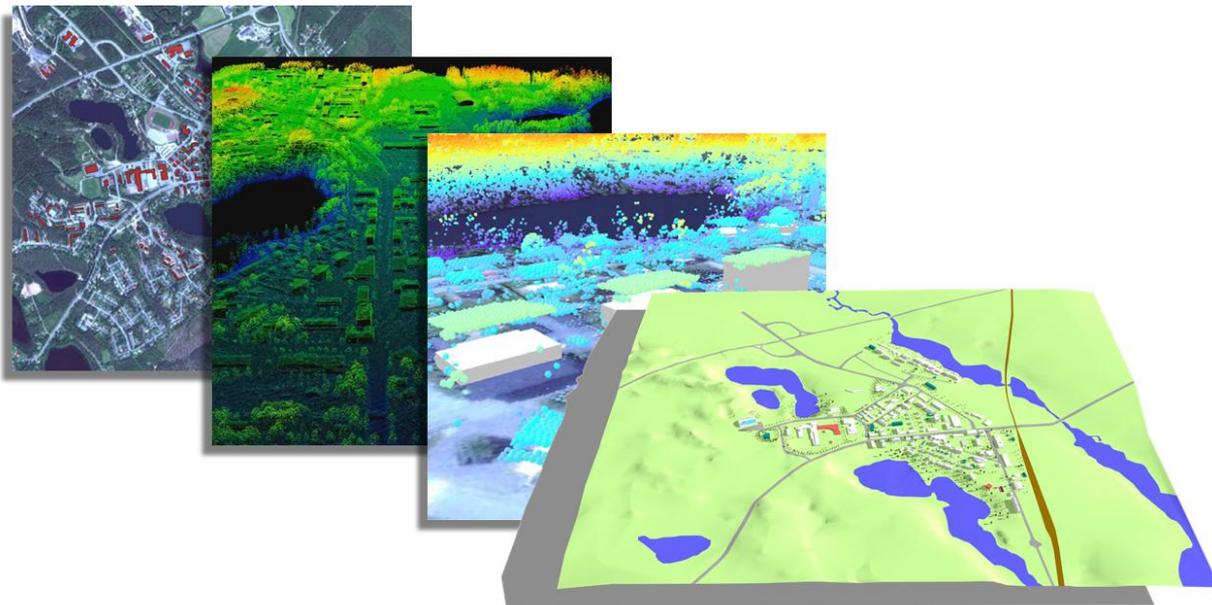
Mobilization of innovative design tools for refurbishing of buildings at district level

MODER is a European project funded by the HORIZON 2020 program (Grant Agreement 680447), the main objective of which is to promote energy-efficient renovation at the district level.

MODER in a nutshell

In the MODER project, the development of the regional level includes new, supplementary and renovation construction. This means simultaneous correction of several buildings in the same area. Renewal and refurbishment will provide financing for building renovation, better infra and renewable energy sources. The tools developed in the project can evaluate the benefits to be achieved to support decision-making.

MODER develops tools, process models and business models for district-level building renovation. The project demonstrates the results in real cases and projects, disseminates information about the results to stakeholders, and promotes the exploitation of the results.



District-level development and refurbishment will bring benefits for owners and investors

- Cost savings can be achieved by repairing several buildings simultaneously in the same neighbourhood/district. Cost savings can be achieved for example in the procurement of services - such as energy analyses, design and construction - and in financing.
- Utilizing local renewable energies - biofuels, solar energy, wind energy and geo-energy - is easier and more efficient when local solutions simultaneously serve multiple buildings instead of one.
- Development and renovation on the district level will enable new financing solutions. Refurbishment can be financed, for example, with the help of infill building.
- In spite of significant saving in annual energy use, zero-energy construction and refurbishment may result in higher peaks loads compared to conventional building. Optimum solutions at the district level control the fluctuation of instantaneous power, consistency and peak loads.

There are also obstacles for refurbishment at level

The biggest barrier for refurbishment at district level is the involvement of several owners in the process and the differences in the interests, hopes and behaviors. Experts interviewed under the project emphasized that project processes, the roles of players, as well as planning processes and legislation should be developed to facilitate regional level correction. Refurbishment at district level requires a player who is able to handle the role of an initiator and project developer.

Owners, investors and cities are key players in district-level building renovation. Cities play a central and multi-stakeholder role as a planner and authority, as well as an owner and developer of different kinds of buildings. Urban energy strategies of cities also create motives for activating and supporting district-level refurbishment.

MODER develops tools for comparing and visualizing options for refurbishment

MODER tools can be used in the early stages of the process to compare energy, greenhouse gas and life cycle costs. The tools enable the investigation of different kinds of refurbishment solutions in the neighbourhood/district. Visualization of results facilitates the comparison of alternatives and decision making.



MODER makes new business and process models for district-level development and renovation

The process models illustrate the work-flows, tasks, results, and roles of different actors in district-level projects. In the development of business models, special attention is paid to actors who could take the role of the project developer in neighbourhood/district-level refurbishment. The models also suggest KPIs that can be used for the measurement of success

Process modeling for district-level refurbishment provides the work flow, the participants, the results of the various phases and the KPIs for measuring the success of the process.

We kindly invite cities, real estate owners, energy companies and construction companies to cooperate.

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