

Main objectives

- Develop tools for design at district for comparison of different alternatives of RES systems and simultaneous consideration of energy and cost savings.
- Visualization tools that will improve understanding of the behaviour of complex energy systems for non-technical stakeholders
- Improve holistic energy-system design at district level considering renewable energy systems.
- Develop processes and practices that enable building owners to activate refurbishment at district
- Introduce new business models for engineering companies, consultants and energy managers to profitably offer these services for owners.
- Promotion of integrated project delivery models needed for refurbishment at district level.
- Develop methods for effective design management by showing procedures for analysis-based target setting, information sharing, monitoring and collaboration.



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Think wiser, think bigger, think district!



MOBILIZATION OF INNOVATIVE DESIGN TOOLS FOR REFRUBISHMENT OF BUILDINGS AT A DISTRICT LEVEL

Vision of project MODER is cost-effective, energy-efficient and user-oriented refurbishment of buildings as part of the global energy system. The main objective of MODER is to increase business in European and global markets for the refurbishment of buildings at district level.



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Project MODER

Project MODER is a part of Horizon 2020 programme that aims to help to achieve smart, sustainable and inclusive economic growth.

Extensive use of energy in building sector means that minimizing energy usage, utilization of RES and rational use of energy in buildings is a high priority. Until now majority of buildings is being renovated individually. Project MODER is developing tools for simulation (D-ECA) and visualization (Apros extension), that will help in the planning phase of the district refurbishment processes. Compared to individual building renovations, district refurbishment offers several advantages. From higher energy savings due to the bigger size of the project, higher energy efficiency, possibility of optimization of grids, lower costs of tendering processes, planning and construction, shorter total refurbishment process, rise of property value due, and much more.

 **Duration:** 3 years, September 2015 till September 2018

 **Funds:** 3.28M € (Horizon 2020)

Main activities

- More than 60 interviewed key stakeholders
- 4 test cases (Finland, Latvia, Slovenia)
- 7 project meetings
- Several scientific publications
- 70 primerjalnih podatkovnih kartic
- Numerous interantional presentations (Europe, Asia)
- 6 international workshops
- Various buisness models developed for different stakeholders
- Development of tools for the use in early phases of refurbishment at district level
- Development and testing of visualization tools of different refurbishment scenarios

Key stakeholders

- Engineering companies
- Energy managers
- Consultants
- Local authorities, municipalities
- Building owners
- Finance, investors
- Local businesses

Partners

Lead partner:



Partners:



Fraunhofer Institute for Building Physics IBP (Germany)



REM PRO SIA (Latvia)



VTT Technical Research Centre of Finland Ltd. (Finland)



Siemens AG (Germany)



Finnenergia Oy (Finland)



Building and civil engineering Institute, ZRMK D.O.O. (Slovenia)



Ertex Solartechnik GmbH (Austria)



W/E Consultants Sustainable Building (The Netherlands)



Local Energy Agency of Gorenjska (Slovenia)