

GEER – Green Energy Efficiency Roadmap

(Outline Proposal)

Basic Idea:

Research facilities, companies and public institutions will work jointly on the development of an IT based decision support system, a so called *Green Energy Efficiency Roadmap (working title)*, for sustainable retrofitting and renewal concepts for buildings in urban districts. The objective is to develop improved, easy to use tools that support cost-effective decision making through design, planning and implementation of renewal/retrofitting projects (including decisions such as demolishing vs retrofitting). These tools should particularly focus on the energy performance of buildings, the impact of district space planning and connections with networks and related installations (transport, energy, water, waste). The tools should also ensure the adoption of the most cost-optimal and affordable solutions for adapting, renewing and retrofitting groups of existing buildings that may include historic structures, fully incorporating the latest innovations and best available technologies that deliver significant energy efficiency improvements while addressing multiple resource challenges and ecosystem-based approaches, such as, for example, green roofs and walls. These solutions may cover indoor and outdoor issues, as well as social and economic concerns. The developed tools will undergo a demonstration and verification in order to check their ability to evaluate in detail the impact potential of the solutions considered along the entire life cycle from design to decommissioning and recycling.

Work Plan:

Work Package 1: Management (Erlangen AG)

Work Package 2: Dissemination (tbd)

Work Package 3: Basic analysis and data harmonisation

- Evaluate the state of the art decision making systems
- Analysis of respective parameters for decision support for retrofitting or renewal concepts for buildings in urban areas
- Harmonisation of parameters on European scale

Work Package 4: Setting up the decision support system

- Requirement engineering
- Definition and validation of system architecture
- System design

- Implementation in an easily configurable display framework
- System integration, usability test, function test

Work Package 5: Data integration

Data collection and data integration regarding relevant parameters in the decision support system

Work Package 6: Testing/Demonstration

Retro- and prospective testing of the decision support system; prospective testing includes retrofitting of urban building stocks according to the concepts of the decision support system and evaluation of the results.

Specific information:

Call identifier: FP7-2013-NMP-ENV-EeB - Energy Efficient Buildings 2013

Topic: EeB.ENV.2013.6.3-4 Energy efficient retrofitting and renewal of existing buildings for sustainable urban districts

Deadline: 4 December 2012

Information on the project: The indicative funding is around max. 3 Mio €. The funding rate is 100 % for management and dissemination, up to 75 % for research activities and 50 % for demonstration activities. 35 % of the budget has to be allocated on SMEs.

The consortium will comprise research institutions, public institutions (municipalities, regional governments) from across Europe, SMEs with skills in energy efficiency topics. Fixed partners currently are: Erlangen AG (Management), Friedrich-Alexander- University Erlangen-Nuremberg, GBI KIG GmbH, VENTIMOLA GMBH & CO DÄMMTECHNIK KG (all Germany), Embiria Consulting Engineers SA (Greece), e4sma s.r.l. (Italy), Projects in Motion Ltd. (Malta), Comfort Consulting Kft. (Hungary), SC MARTY SRL (Romania), Ontomantics S.A.S. (France), Novi University of Applied Sciences (Finland).

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