

## ESRA – Energy Savings and Renewable Energy supply in Urban Areas Project summary

01.10.2011

<b>Project title</b>	<b>Energy Savings and Renewable Energy supply in Urban Areas</b>
<b>Acronym</b>	
<b>Programme</b>	INTERREG IV B South East Europe (2007-2013) 4th Call project Application
<b>Priority</b> <b>Area of intervention</b>	<b>Priority Axis 2: Protection and improvement of the environment</b> <b>Aol 2.4: Promote energy and resource efficiency</b>
<b>Project Summary</b>	<p>The main aim of ESRA is to enhance the energy performance of urban structures by applying integrated approaches for an energy efficient urban development at district level.</p> <p>Integrated energy concepts which increase the energetic and economic efficiency of rehabilitation projects, and which are embedded in integrated urban development concepts, are hardly applied in South East Europe.</p> <p>Thus, one crucial aspect of the project will be the <b>joint elaboration and testing of integrated concepts for energy related urban regeneration</b> based on a thorough analysis of the physical and socio-economic situation of the urban area. The existing potentials for enhancing the energy performance of buildings and the heat supply system, including the use of renewable energies, will be analysed, and a respective action strategy of measures will be set up.</p> <p>These aspects are of prior importance: development of integrated energy concepts for urban areas, establishment of implementation structures such as participation processes and financing instruments to stimulate investment in these domains and the implementation of measures: the energy efficient rehabilitation of buildings and new ways of energy supply including renewable energies.</p> <p>Next to the need for modernisation, the basic functions of buildings, especially the energy and environmental-technical rehabilitation of the buildings play an important role. So far, the conventional rehabilitation conflicted with insufficient financial instruments and with the very sketchy owner structure being weak in decision making and action taking after the privatisation of single apartments.</p> <p>The project will put forth the above mentioned points and will also acknowledge the importance of information and participation of residents and owners.</p>

	<p>The basic focus of the project is on the identification of measures in the building stock and the urban environment, whose implementation is suitable to be funded by European structural funds or other national / regional programmes.</p> <p>As a practical part, <b>pilot projects</b> will be realised to test the implementation of the developed concepts. The pilot projects will consist of refurbishment measures, new concepts for the district heat energy supply including local and district heating, combined heat and power and the use of renewable energy.</p>
<b>Relation to other European projects</b>	<ul style="list-style-type: none"> <li>• EnSURE - Energy Savings in Urban Quarters through Rehabilitation and New Ways of Energy Supply, INTERREG IV B Central Europe</li> <li>• Urb.Energy – Energy Efficient and Integrated Urban Development Action – INTERREG IV B Baltic Sea Region</li> <li>• BEEN – Baltic Energy Efficiency Network for the Building Stock – INTERREG III B Baltic Sea Region</li> <li>• LHASA – Large Housing Areas Stabilisation Action – INTERREG III B CADSES</li> </ul>
<b>Duration</b>	05/2012 – 10/2014 (30 months)
<b>Budget (EURO)</b>	~ 2.200.000,- EURO
<b>Lead Partner</b>	<b>City of Teramo / IT</b>
<b>Project preparation</b>	<p><b>Wüstenrot Haus- und Städtebau GmbH</b>  Hohenzollernstraße 12-14  D-71638 Ludwigsburg  Mr Jens Freudenberg  +49 71 41 14 93 27, <a href="mailto:jens.freudenberg@wuestenrot.de">jens.freudenberg@wuestenrot.de</a></p>
<b>General Objectives</b>	<p>The project will elaborate and implement integrated energy concepts for urban quarters to enhance their energy performance by improving the energy efficiency of the building stock and realising new energy supply concepts. For the sustainable implementation of these measures relevant stakeholders will be involved at an early stage and financial schemes will be developed to foster follow-up investments. The concepts will comprise several thematic aspects:</p> <ul style="list-style-type: none"> <li>• A qualitative high-standing architectural, energy efficient rehabilitation of the building stock (housing - public buildings – business parks)</li> <li>• New ways of energy supply for urban quarters including the use of renewable resources</li> <li>• Innovative environmentally friendly district heating systems</li> <li>• Financing instruments and concepts at European, national, regional and local level to foster follow-up investments (including revolving funds)</li> <li>• Institutional networks to ensure a sustainable implementation</li> <li>• process- orientation: Awareness-rising and motivation of stakeholders</li> </ul>

	<p>By testing innovative model solutions in pilot districts, the project partners shall jointly develop a transnational compendium concerning the above mentioned aspects of integrated urban energy concepts. The results shall be disseminated to other cities all over South Europe.</p>
<p><b>Topics</b></p>	<p><b>1. Integrated energy concepts for urban quarters</b></p> <p>The development of an integrated urban energy concept including urban energy management strategies is the basis of the pilot projects to be realised in each partner city. The concept takes into consideration the state of the building stock, the building structure, the residential environment, the economic and social situation of the citizens and the existing public infrastructure. The transnational exchange comprises the definition of standards and common aims regarding energy efficiency urban development concepts.</p> <p><b>2. New ways of energy supply for urban quarters</b></p> <p>New ways of energy supply, especially renewable energy sources, shall be tested and evaluated. Community heating systems, ground water heating, etc. will be planned and partly implemented or prepared for implementation.</p> <p><b>3. Energetic rehabilitation of the building stock</b></p> <p>The aim is a conception and pilot realisation of several energy efficient rehabilitations of buildings in different partner states. Measures to be implemented are:</p> <ul style="list-style-type: none"> <li>• Process analysing and auditing of energy consumption in pilot buildings,</li> <li>• Identifying the major construction, maintenance and design features of energy efficient buildings,</li> <li>• Renewal of heat consumption systems, including new energy supply concepts.</li> </ul> <p>The key measures are thermal insulations of walls, windows, ceilings etc. and technical innovations in energy saving and energy efficiency.</p> <p>The public urban infrastructure (e.g. schools, day care facilities, town halls) plays an important role to achieve the attractiveness of residential quarters. Furthermore, municipal investments in public infrastructure are “show cases” and incentives to promote the sensitisation for the issue of energy saving and to stimulate further private investments.</p> <p>While first experiences with energy efficient housing refurbishment measures are available in several municipalities, the topic of improving the environment of residential quarters and business districts on the basis of urban energy saving concepts is still rather new in the partner states and needs to be promoted.</p> <p><b>4. Awareness-rising and involvement of stakeholders</b></p> <p>In the light of the increasing prices for energy, the reduction of costs for users will be more and more relevant in the future. Energy saving and cost efficiency are the crucial and convincing arguments for users to deal with energy efficient solutions. This will be the starting point of</p>

	<p>a broad communication strategy to create awareness through education and information of the homeowners and residents.</p> <p>The involvement of the concerned stakeholders such as energy providers, municipalities, owners and housing companies but also consumers is identified as a crucial part for the successful implementation of integrated concepts for an energy efficient urban development.</p> <p><b>5. Financing instruments</b></p> <p>The financing of energy efficient rehabilitation requires distinguished financial sources and instruments. The project shall collect, test and evaluate different financing instruments at European, national, regional and local level.</p> <p>Concerning European funding, the application of EU structural funds with the new options of revolving urban development funds (i.e. JESSICA) is supposed to be a central part of financing models. Attention should be paid to the possibility to apply for ERDF funds for the rehabilitation of residential buildings.</p> <p>In a first step, the different financing instruments at different level will be analysed individually for every partner state / region and will form the basis for further work on concrete financing concepts.</p> <p>In a second step, suitable financing approaches will be developed. This also includes the identification of existing financing gaps for important investment needs as well as the discussion if the given conditions and regulations of existing financing are appropriate.</p> <p>Based on this, a few (national) reference models shall be developed, and tested as pilot funds. Conclusions on national differences will be drawn and documented in order to allow national multiplying of the pilot projects.</p>
<p><b>Actions and Methods</b></p>	<ul style="list-style-type: none"> <li>• Transnational exchange, transfer of experiences and knowledge</li> <li>• Joint development and application of new and transferable tools and methods</li> <li>• Elaboration of development concepts and action plans for an energy efficient urban development at district level</li> <li>• Joint development of participatory decision-making strategies and awareness-rising campaigns</li> <li>• Development of transnational methods and tools for the audit and controlling of the energy consumption</li> <li>• Realisation of pilot project and joint evaluation</li> <li>• Elaboration of a transnational policy for an energy efficient urban development</li> <li>• Dissemination of the project results via regional trainings, public conferences, public relations, publications and exhibitions</li> </ul>
<p><b>Expected results</b></p>	<ul style="list-style-type: none"> <li>• Reduction of energy consumption in private and public buildings</li> <li>• Transnational approaches to improve the energy supply and the urban infrastructure</li> </ul>

	<ul style="list-style-type: none"><li>• Compendiums on national framework data and preconditions, concerning particularly housing, urban planning principles, as well as financial and funding instruments</li><li>• High-quality, efficient and sustainable energy and environmental rehabilitation of the building stock</li><li>• Integrated energy concepts for the restoration and development of urban areas in the participating countries</li><li>• Jointly developed and applied methods and tools for an energy management system</li><li>• Contribution to a European Baukultur</li><li>• Applied technical innovations on energy saving and energetic efficiency</li><li>• Enhancing the financial possibilities for the energetic refurbishment of private and public buildings</li></ul>
--	--

Jens Freudenberg  
01/10/2011