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Dear Reader:

Urb.Energy is a project, which is partly financed by the European Regional Development Fund and aims on the development of integrated concepts and strategies for the comprehensive energy efficient renewal of residential areas in the Baltic Sea Region.

With the present newsletter we would like give you an overview on the current activities of our 15 project partners to promote sustainable cities and neighbourhoods. In this regard the special emphasis of the project lays on integrated approaches that tackle at the same time structural and social problems as well as the modernization of the housing stock.

In this first issue we would like to inform you about the project set-up as well as about recent and upcoming events. Furthermore, the features offer the possibility to get a more profound insight into the work of four involved institutions.

Enjoy reading!

With kind regards,

The Urb.Energy Team

Imprint:

Responsible editor: Andreas Lindner, Deutscher Verband für Wohnungswesen, Städtebau und Raumordnung (DV) e.V.

Berlin, January 2010

The newsletter is available for download at the Urb.Energy website

Energy Efficiency and Integrated Urban Development – the project Urb.Energy

Project Background and Objectives

Against the background of climate change and limited energy resources, improved energy efficiency in buildings, increased use of renewable energy and energy saving urban structures gain importance.

The European housing stock is a major contributor to energy waste and CO₂ emissions. Improving the thermal efficiency of existing buildings has great potential to reduce greenhouse gas emission, energy consumption and heating costs. However, the refurbishment rate, especially in the Eastern European EU Member States, is still rather low. Current renovation activities in the multi-family housing stock are often limited to the application of minimum or standard measures. At the same time, a large number of housing estates in the Baltic Sea Region is characterised by a rather poor quality of the residential environment and infrastructure facilities.

To tackle these problems, Urb.Energy aims to combine measures of energy efficient refurbishment of the prefabricated housing stock with the overall development of the residential neighbourhood. To enable this approach to work effectively, innovative financing schemes are developed in parallel.

Urb.Energy's key objective is the development of integrated concepts and strategies for the comprehensive energy efficient renewal of residential areas in the Baltic Sea Region.

To reach this target the project work is focussed on three main topics:



Urb.Energy is funded by the Baltic Sea Region (BSR) Programme 2007 – 2013 and national co-financing from the project partners.

The BSR Programme 2007 – 2013 is an EU Structural Funds programme for transnational cooperation under the European Territorial Co-operation objective.

The programme aims to make the Baltic Sea Region an attractive place to invest, work and live in. The BSR Programme is divided into four priorities. Urb.Energy is allocated to priority 4: "promotion of attractive and competitive cities and regions".



Facts:

Project duration: January 2009 – January 2012

Partners: 15 partners from five EU-countries (D/PL/LT/LV/EE) and Belarus

Budget: 3.8 Million Euro

Upcoming events of Urb.Energy:

- **Seminar about financing of energy efficiency measures: 19 - 20 April 2010 – Lübeck**
- **Seminar about energy efficiency of buildings and supply infrastructure: 10 June 2010 - Warsaw**
- **Midterm Conference of the Urb.Energy project: 11 June 2010 – Warsaw**

For more information about the upcoming events please refer to the project's internetpage:

www.urbenergy.eu

The Tipp:

“BUILD UP” – a new web portal about energy efficiency

In 2009 the European Commission launched the web portal “BUILD UP”. Objective of the portal is the exchange of information about energy saving in buildings. It addresses various topics such as best-practice examples about energy efficiency or information about technologies or legal issues. The contents are supplied and constantly updated by the users themselves. Building professionals, public authorities, umbrella organisations and home owners and tenants have tailored access allowing the sharing of information across Europe.

More information and the possibility to sign up are available at: www.buildup.eu

The Urb.Energy project-flyer is now available on the website in English and German

www.urbenergy.eu

Feature:

Energy saving and public space

The City of Rakvere (Estonia) is elaborating comprehensive solutions to combine the upgrading of neighbourhoods energy efficiency

How can we save energy? This is the question that today's cities are searching answers to, even small cities like Rakvere in Estonia. In addition to the largely practiced energy saving measures, like improving insulation of the buildings and promoting public transportation, also means that help oppose urban sprawl, resulting in energy consumption increase, are also very important. To save energy and work against urban sprawl we have to enhance the competitiveness of urban space by creating attractive open spaces that meet the needs and expectations of the residents.

Rakvere is a small town with only 17 000 residents, but faces similar challenges as do many other cities. Residents prefer to leave the apartment buildings in the city centre for a detached house in the outskirts. This brings along many environmental issues, but more importantly, increases energy consumption, e.g. for heating and transportation.

After analyzing the urban space of Rakvere, we found that Seminari Street is the most densely populated area in the city. Most of the typical apartment buildings, which are the legacy of the soviet regime, are located along the Seminari Street, causing the high density. The energy consumption and appearance of the apartment buildings do not meet the present-day

requirements or expectations, and therefore increasingly more attention is paid to the reconstruction of their facades. These buildings are an important part of the urban space and therefore it is in the public interest that these buildings and their surroundings become attractive and enjoyable. By paying attention to the appearance of this residential area and the residents' needs, the competitiveness of the city should increase and help oppose the urban sprawl. In



addition to the energy savings of the insulated buildings, it would help the whole area to be more energy efficient.

Although Seminari Street area is the most densely populated in the city, it is hardly adequately utilised. The four-lane street was planned as an avenue in the 1920-s, times of active growth of the city, and is oversized compared to the actual needs - there is not much vehicle traffic. However, there is much pedestrian traffic to witness. It would be

Thematic focus:

Integrated
Urban
Develop-
ment

reasonable to change the proportions of vehicle and pedestrian traffic areas. The quality of the residential space would increase significantly by bringing the hardly utilised urban space into active usage.

We plan to announce an ideas competition to get integrated design ideas for reconstruction of the apartment buildings and transforming the Seminari Street into a linear park, which would also link the heart of the city to the greenery areas in the outskirts of the city. As an

outcome of the competition, the city will have design ideas, based on which construction drawings would be drafted and the linear park be built. In co-operation with the co-operative housing associations, by providing them with the construction drawings, it would be possible to reconstruct the apartment buildings and make them energy efficient

and attractive. This integrated approach helps to save energy and create an environment that can tackle the challenges of today's cities with more success.

Raul Järg
City architect of Rakvere

For more information please refer to:

raul.jarj@rakvere.ee
www.rakvere.ee

FEATURE:

Integrated urban development strategies - a key factor to energy conservation and the reduction of CO₂ output in the state of Brandenburg

With a long tradition of producing energy far above its own regional demand, the state government of Brandenburg has made climate protection and saving energy a key policy issue in urban and housing policy over the last two decades.

Reducing energy consumption during the first years after German unification was mainly a by-product of urban rehabilitation and the efficiency of new buildings. Cutting the soaring energy cost and keeping housing affordable was a major policy goal. Good insulation, metering and avoiding losses in the distribution were the main targets. Since then the focus has shifted more towards climate protection and reducing the CO₂ footprint of a region, which will most likely be heavily affected by any oncoming climate change – desertification, drying rivers and the consequent loss of its agricultural and touristic capacity are to be named as outstanding treats. In its climate protection policy, the spatial polarisation of Brandenburg must be taken into account.

The context differs widely between the urbanised development belt around Berlin and the extremely low density agricultural lands with only a few urban centres at the periphery. While in the suburban belt, consumption and distribution are central issues, the peripheral rural regions also are the producers of energy. Here energy generation covers the traditional forms - mostly highly

polluting brown-coal – as well as the many non or low level polluting alternatives from wind and solar energy to bio-mass production. On the level of climate protection policies, the focus in the diverse region thus must be threefold.

- Attention is given to the potential for saving energy through technological innovations and a reduction in demand,
- on intelligent networks and modes of distribution as well as on climate-efficient ways of energy generation.
- However informing and educating all actors and the citizens as end-users of energy is as important, as only by changing routines and habits, technological innovations can be fully utilised and the citizens can be activated to take part in measures that help securing the environment – and often also save money on the long run.

Amongst Brandenburg's assets in the struggle against climate change there are many research institutes dealing with the environment and climate protection, amongst them the PIK (Potsdam Institute for Climate Impact Research www.pik-potsdam.de) and the universities, dealing mainly with technological innovations in the generation and use of energy and policy implementation. As important as partners, however,

are the boards of economy (IHK Potsdam), the urban networks ('Städtekrantz') and the umbrella organisations of the home-owners (BBU), who are focussing on the governance climate protection – the network relations between producers, distributors and end-users.

The concept of integrated policy and planning

In designing and applying a climate-friendly development strategy, the MIL can refer to the collaborative experiences in the post 1990 regeneration of Brandenburg's cities and towns. The basic experience of this early urban renewal is that only a close collaboration of all actors can lead to success. The old 'departmental' thinking and rifts between the different policy makers on a local and regional level as well as between planners and users had to be overcome to reach a satisfactory outcome. Besides new integrated structures of public support policies – from building and repair subsidies to infrastructure support and labour market programmes to integrating the unemployed into wealth-creating activities in housing and urban improvement - new communicative practices had to be introduced. The former philosophy of 'top down' policies changed towards a balance between the professional 'top-down' and a 'bottom up' that had to be based upon a strengthened and self confident civil society that acted as an equal partner in enhancing housing and the

Thematic focus:



cities. As the experience with the integrated urban development concepts (INSEK) for urban regeneration in Brandenburg shows, there are close interdependencies between spatial and economic development, between capacity building through education and supporting the build-up of a cultural identity of the residents in regions affected by socio-economical change. Even well meant single issue action can be quite counterproductive. If energy efficiency in building is enhanced through public support of one department, while at the same time urban sprawl is furthered e.g. by a car friendly tax policy and cuts in public transport, the potential success of the single-issue policy can easily be overpowered – individual

INSEK – Integrated Urban Development Concept

Integrated Urban Development Concepts are the main tool of the urban development and climate protection strategy and are the main element of Brandenburg's Urb.Energy report. On the one hand, they consist of a medium term planning document covering all sectors of development and the expected outcomes of projects. On the other, the inclusive and participatory process of developing the INSEK is a major factor for its success. The methodology and the outcomes are debated, quasi around a table incorporating the public and private actors as well as civil society, aiming at a broad consensus about the future – clearly stating the cost and benefit of development for

incentive to engage in the process: No funding without a concept, which allows an evaluation of the multiple consequences of action – and of not acting.

For more information please refer to:
www.mil.brandenburg.de

Workshop about analysis tools for integrated development concepts

The Urb.Energy partners met in Siauliai (Lithuania) to exchange on approaches for the comprehensive analysis of neighbourhoods. The workshop was organized by the city government of Siauliai and took place on 17 and 18 September 2009.

The documentation of the workshop is available on the Urb.Energy Web-page:

<http://www.urbenergy.eu/74.0.html>



behaviour, climate protection and tax policies – just to name an example – should be highly inter-concerted. Integration of action across actor-boundaries also implies a change of perspectives from a 'donor' perspective of policy makers to the end-user perspective, without whose consent no behavioural change can develop.

all concerned. Win-win-strategies are envisaged and communicated and, as time goes by, a periodical check of the success and failure of projects and measures leads to a further development of the concept.

The state of Brandenburg has provided the cities and towns with a basic design framework for the INSEK and with an

New technologies in the area of energy efficiency and supply infrastructure

The Potsdam Chamber of Commerce and Industry (Germany) organized in October 2009 a study tour for experts from Riga to exchange on various practical examples in the area of energy efficiency and supply.

Thematic focus:



During the visit the experts from Latvia had the opportunity to get an insight into the experiences of Brandenburg research institutions, public organizations and private companies. Following examples were presented:

Geothermal technologies:

At the German Research Centre for Geosciences (GFZ) the participants had the opportunity to discuss the possible application of a geothermal drilling programme in Latvia.

www.gfz-potsdam.de

Improvement of energy efficiency in multi storey buildings:

The housing company ProPotsdam informed about the

new German standards for improving energy efficiency in multi storey buildings. To gain insight into practical solutions, three renovated apartments were presented. As ventilation was a main topic for the guests from Riga, the final discussion with the representatives of the housing company highlighted different solutions for this topic.

www.propotsdam.de

Street lightening:

The newest technologies in energy efficient street lighting, especially LED, was presented during a meeting with the Semperlux AG in Berlin. The street lightning of Semperlux is in particularly suitable for historical city centers such as Riga.

www.semperlux.de

Monitoring of energy consumption:

The so called "Praxishaus" is a building, of the size of one-family dwelling, which contains the newest technology to measure and monitor the energy consumption of the building. The "Praxishaus" is operated by the "Competence Center for the Rational Use of Energy in Göttingen".

www.energie-kompetenz.eu

The Potsdam Chamber of Commerce and Industry is ready to welcome also other project partners for similar study tours.

For further information please contact:

Stalinski@POTSDAM.IHK.DE

Seminar on energy efficiency and supply infrastructure:

On 16 September 2009 the UrbEnergy seminar about energy efficiency in buildings and the related energy supply structure took place in Jelgava (Latvia). Over 65 participants took part in the event which was opened by the Andris Ravins, the Mayor of Jelgava.

The Participants discussed various aspects of energy efficiency in heating supply systems, incl. new and innovative technologies.

The documentation of the seminar is available on the UrbEnergy Web-page:

<http://www.urbenergy.eu/74.0.html>



Activities of the project partners in the Target Areas (TA) in the field of energy efficient renewal:

TA Jelgava (Latvia):

- September 2009: Agreement with Aspectus Ltd. Company (technical inspections and energy audits in 36 multi-storey dwelling houses until March 2010)
- November 2009: Conference "Technical and financial solutions for improving energy-efficiency in buildings" with experts from construction companies, representatives of ministries, banking officers and partners from Germany. The objective was to raise discussion about common construction and financing standards when dealing with energy efficiency in buildings (multi-storey buildings, public, private)
- November 2009: Inauguration of a fully renovated energy-efficient multi-storey house (the expected energy savings will be around 60%)
- To introduce Urb.Energy on national level, a TV-film was produced in the city of Jelgava.

TA Rakvere (Estonia):

- The expert groups for preparing the activities for social, financial and energy efficiency aspects of the project have been formed
- The expert groups have formulated the methodology, activities and time table for the project research
- Four types of typical Rakvere residential buildings have been identified for the project.

TA Jugla (Latvia):

- Inhabitants of Jugla neighbourhood take an active part in energy efficient refurbishment process of multi-apartment buildings
- Around 20 buildings of Silciema street district are going to insulate end walls of buildings

TA Siauliai (Lithuania):

- Preparation and finalization of the documentation for the tenders for the Target Areas

TA Grodno (Belorussia):

- Three residential buildings for renovation were selected
- Communal services completed an inspection of the buildings
- Data collection on buildings was sent to German experts



State of Brandenburg:

The Potsdam Chamber of Commerce and Industry has chosen two practical examples of innovative technologies in refurbishment of multi-storey buildings and heating supply systems in Brandenburg for documentation: Feldheim (energy independent village) and Potsdam (energy efficient refurbishment of multi-story buildings).

TA Piaseczno (Poland):

- 2 meetings with local community and municipality officials were held
- Energy audits for buildings are under way
- List of housing estates is complete

For further information please contact: Stalinski@POTSDAM.IHK.DE

FEATURE:

Financing Energy Efficiency

The Urb. Energy project deals on the one hand with energy efficiency in the building sector and on the other with the aspect of urban development.

Energy efficiency in the building sector is one very important issue when it comes to the goal of saving energy and CO₂. Additionally relevant is that proper renovations give more comfort to the users. The cosiness in an energy efficient refurbished house is much higher than before.

In one of the next newsletters we will examine the financing mechanisms of urban development measures. This article is about the challenge of financing energy saving measures.

refurbishment one will see that in most cases energy efficient measures are more expensive than standard measures. Often the house owners don't have the needed capital. So they have to take a loan to afford those requirements.

Those loans often are not suitable for this kind of financing. The loan term might be very short and the interest rate too high, so that the monthly burden is prohibitive. Even if the energy consumption of an energy efficient house is lower than before, the savings might not be sufficient to cover the financing costs of the building measures.

In some cases grants might be distributed for those purposes,

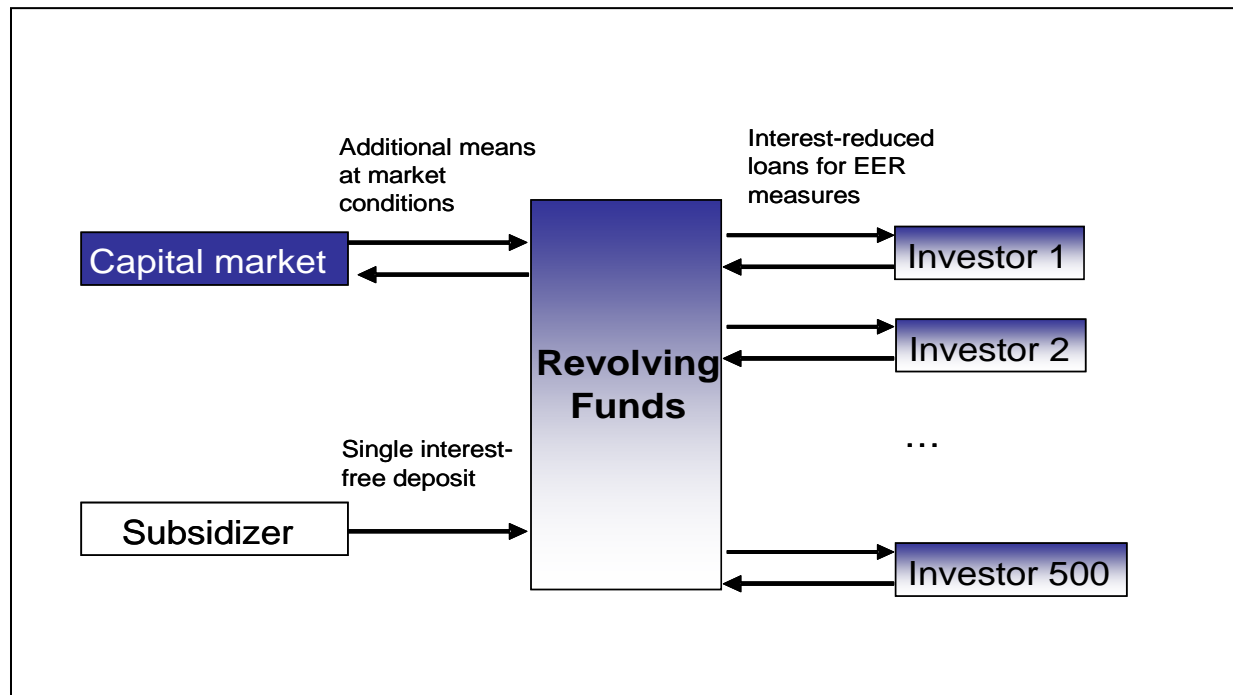
Thematic focus:



So the conclusions often are the wrong ones: *no measures or only the realisation of standard measures.*

Possible Financial Solutions

To motivate people to do the right thing and realize energy efficient refurbishment one way can be to provide financial instruments that cause acceptable costs and may even turn the building measure into a profitable solution. For that goal one needs a range of suitable and sustainable financing instruments.



Financial Barriers for Energy Efficiency Measures

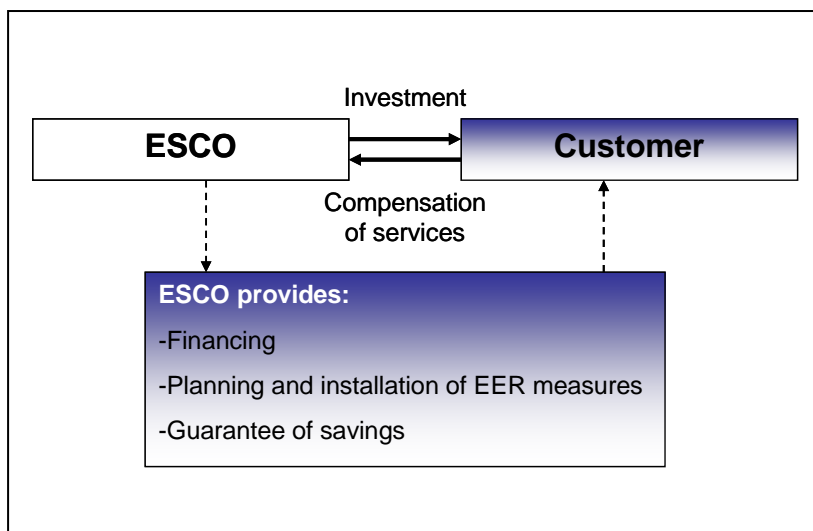
When it comes to a cost estimate in the planning stadium of a building

but often the available capital is not sufficient for a wide range of building measures. The number of investors that benefit from those grants is limited and once a grant is paid out the money will not be available any more.

One of those instruments is the model of the revolving fund, which is a combination of loans from the capital market and grants. This fund can be distributed as interest reduced loans for abovementioned

measures. The policy should be: *the more efficiency the better the conditions.*

Further suitable financing mechanisms for those kinds of projects are the Energy Supply and the Energy Performance Contracting. In these models Energy Service Companies (ESCOs) provide financing, planning and guarantees of savings to the customer. The customer also gets the energy supply from the ESCO. This is a save and comfortable option for the building owner to realize energy efficient measures for predictable costs and low risks.



For further information please contact Andreas.Doerdelmann@ib-sh.de or Wolfgang.Schulz@wimi.landsh.de

Workshop on financing integrated urban development in Estonia:

On the 5 and 6 November 2009 a workshop on existing financing possibilities for energy efficient refurbishment and urban development took place in Estonia. The workshop took place both, in the Estonian capital and in Rakvere, in order to allow the project partners to visit the Estonian target area.

Around 40 participants took part in the event, which was opened by Mirja Adler, head of the housing division in KredEx, and host of the event in Tallinn. The key topics on the first day have been the presentation of results from the predecessor project BEEN, including a visit to the BEEN best-practice project and the presentation of the new Estonian funding approach using structural funds for energy efficient refurbishment measures. In the afternoon, partners were travelling to Rakvere, where the participants have been welcomed by the Mayor of Rakvere, Andres Jaadla and the workshop was continued.

The second workshop day, the partners continued their work and exchange of experience within four working groups that dealt with the financing of measures in I. public buildings, II. residential buildings, III. the energy supply infrastructure and IV. in residential buildings. The conclusions of the working groups were presented and provided valuable insights into the current situation in the partner countries and the target areas. The event was closed by a presentation of Andreas Dördelmann, Energy Agency SH in which he suggested financial schemes for each country.

The documentation of the seminar is available on the Urb.Energy Web-page:

<http://www.urbenergy.eu/79.0.html>

FEATURE:

The Estonian revolving fund scheme for energy efficient refurbishment in housing

In Estonia the EU Structural Funds are combined with the funds from CEB to form a fund for housing refurbishment and offer a long time low interest loan for apartment buildings to achieve energy efficiency. The aim of the renovation loan is to support the renovation of apartment buildings and to raise their energy efficiency at least by 20%, by improving the accessibility of loan capital through KredEx.

The product is targeted to the apartment associations, building associations (incl. previous housing associations) and communities of apartment owners.

Favourable conditions of renovation loans arise from the combination of zero interest means for renovation of apartment buildings, allocated by European Union structural funds, with outside financing, enabling to offer to credit institutions financial resources with weighted average price lower than at financial markets, and to issue through these loans with lower interest and longer time limit to credit institutions.

With the loans only finance of energy efficiency investments are allowed. Energy audit is obligatory in order to obtain loans, as the loans can only be allocated to investments that

Thematic focus:

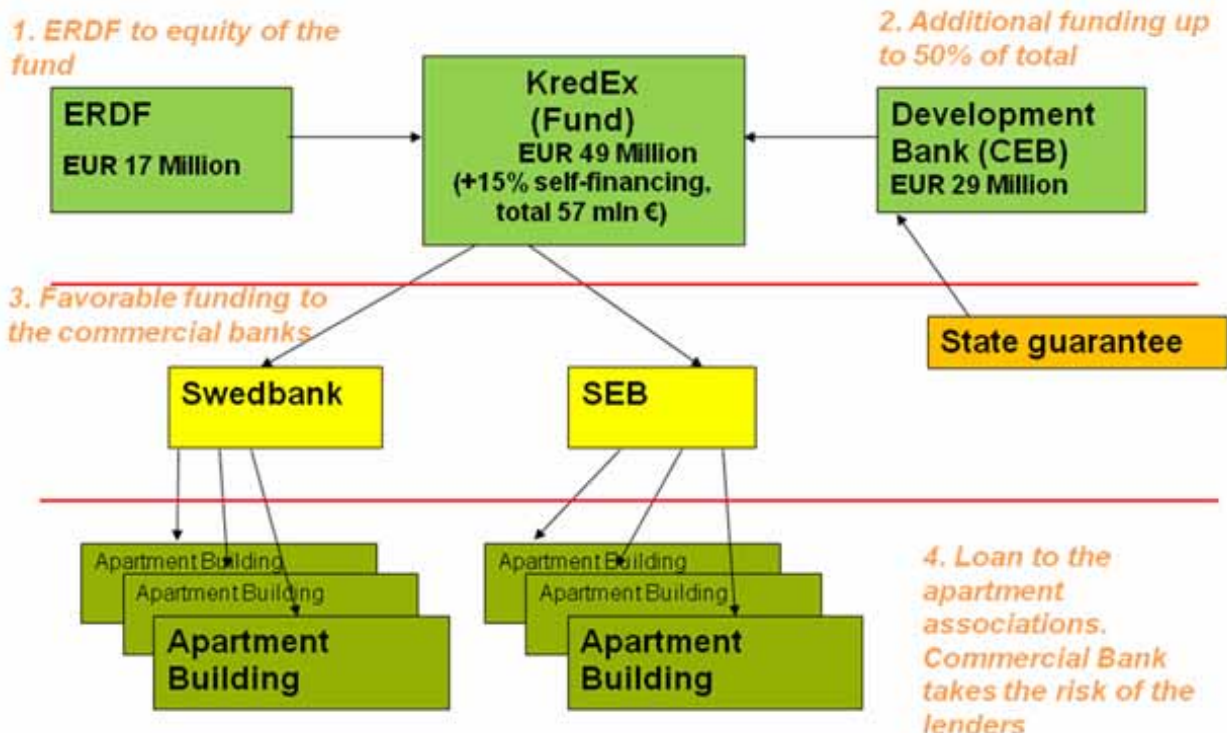


are covered by the energy audit. Another main objective of energy audit is to estimate energy savings that will be achieved by renovation works.

In first 6 months 60 loans in total amount of 70 million € have been signed. Average size of the building is 2 425 m² with 36 apartments, average savings expected is 33%, average maturity is 13 years (maximum can be 20).

For more information please refer to:
<http://www.kredex.ee/renovation-loan-for-apartment-buildings-2>
Contact: mirja.adler@kredex.ee

The scheme:





Contact and Information:

Lead Partner:

German Association for Housing, Urban and Spatial Development (DV) e.V.

Andreas Lindner
a.lindner@deutscher-verband.org
T: +49(0)30 206132556

Project Coordinator:

Housing Initiative for Eastern Europe (IWO) e.V.

Britta Schmigotzki
Schmigotzki@iwoev.org
T: +49(0)30 20605485

www.urbenergy.eu

The Urb.Energy Project Partner:

GERMANY:

- German Association for Housing, Urban and Spatial Development (Berlin)
- Housing Initiative for Eastern Europe (Berlin)
- Center of Competence for Major Housing Estates (Berlin)
- Ministry for Infrastructure and Spatial Planning, Brandenburg (Potsdam)
- Chamber of Commerce and Industry, Potsdam
- Ministry of Science, Economics and Transport, Schleswig-Holstein (Kiel)

POLAND:

- City and County Piaseczno

LITHUANIA :

- Housing and Urban Development Agency (Vilnius)
- Siauliai City Municipality Administration

LATVIA:

- City of Riga
- City of Jelgava

ESTONIA:

- Credit and Export Guarantee Fund KredEx (Tallinn)
- City of Rakvere
- Baltic Union of Cooperative Housing Associations (Tallinn)

BELARUS:

- Grodno Oblast Executive Committee, Housing Department

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