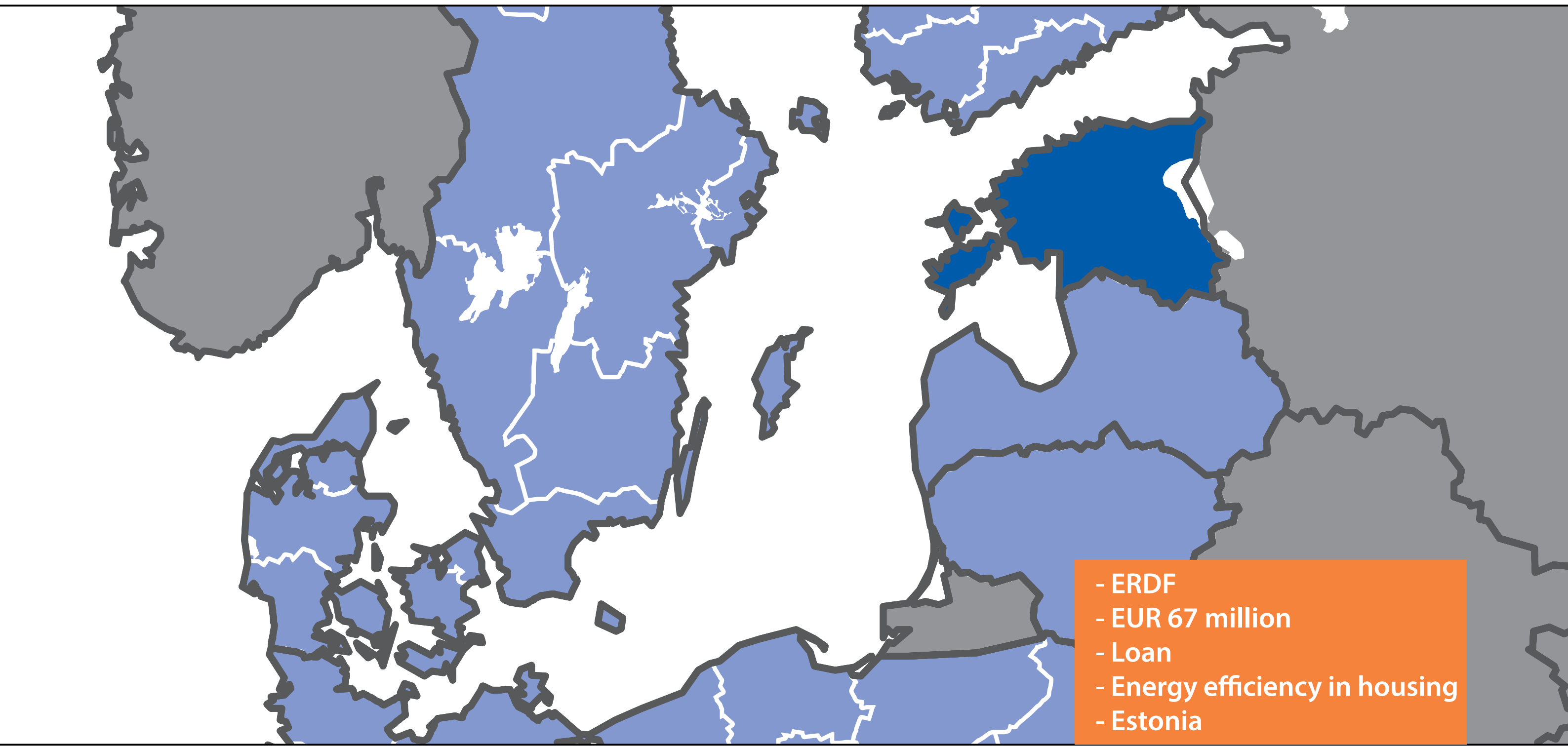


- ERDF
- EUR 67 million
- Loan
- Energy efficiency in housing
- Estonia

… generating energy savings and improved living conditions …

Renovation loan programme

Case Study

European Commission

European Investment Bank

The EU bank

DISCLAIMER

The authors of this study are a consortium of three companies: t33 (lead), University of Strathclyde – EPRC and Spatial Foresight.

Abbreviations

CEB	Council of Europe Development Bank
ERDF	European Regional Development Fund
ESF	European Social Fund
ESIF	European Structural and Investment Funds
HOA	House Owners Associations
KredEx	Estonian Credit and Export Guarantee Fund
OP	Operational Programme

Table of contents

1 Summary

This case study describes the implementation of an Estonian European Regional Development Fund (ERDF) financial instrument for improved energy efficiency in apartment buildings. Through a combination of loans, technical assistance and grants, associations of apartment owners received guidance and financial assistance throughout the documentation and implementation process of their energy efficiency renovations. At November 2014, 619 apartment blocks with over 22,000 apartments throughout Estonia became more energy-efficient through this scheme. One of these, as described in this study, is Sõpruse 202, a building of 162 apartments in Tallinn built in the 1970s which, due to this financial instrument, managed to renovate its apartments in only one year, with energy efficiency improvements of 63%.

Through this financial instrument, the managing authority addressed one of Estonia's main energy efficiency concerns. Apartment buildings are old and a lot of energy is needed for heating. Experts estimate that 40% of total energy consumption in buildings goes into heating. Though 75% of Estonians live in apartment blocks, a third of these are more than 50 years old. After previous attempts to address this issue through grants alone, the managing authority decided to combine grants with technical assistance and loans. The financial instrument provided advantageous loans of up to 85% of the renovation value. It could also be combined with other schemes offering free advice on preparing the project, as well as with rebate-type grants based on the energy efficiency achieved.

KredEx, a public financing institution, was the holding fund manager of the renovation scheme, receiving EUR 17.74 million of ERDF funds and attracting another EUR 48.97 million from public sources for the same purpose. Two banks distributed the funds to apartment associations who could rely on KredEx for technical assistance as well as help with energy audit grants, or guarantees covering their 15% share of renovation costs.

This example illustrates how a combination of loans, technical assistance and a rebate-type grant address different aspects of the same market gap.

Name

Renovation of apartment buildings (Estonia)

Funding source

ERDF, Council of Europe Development Bank, Estonian State, Private

Type of FI

Loan plus grant/soft support

Financial size

EUR 66.7 million total = OP resources (EUR 17.7 million ERDF and EUR 49 million national public co-financing, of which EUR 28.8 million as a loan from the Council of Europe Development Bank, EUR 4.2 million as KredEx's own contribution and EUR 16 million as a loan from the state)

Absorption rate[1]

94.76 % (at the end of 2013)

EU leverage[2]

3.76x (leverage effect of ERDF funds)

Re-investment rate

8%

Thematic focus

Energy Efficiency and Renewable Energy

Type of final recipient

Associations of apartment owners in blocks with more than three apartments

Partners involved

ERDF, Council of Europe Development Bank, Estonian State, KredEx, two private banks, associations of private apartment buildings

Timing

June 2009 – June 2014

Main results

At November 2014, 619 apartment buildings with 22,676 apartments have been renovated to modern standards with substantial energy savings and improved living environments.

[1] *This refers to the absorption rate of all OP allocations for this financial instrument. It is calculated as funds disbursed to final recipients divided by funds available through the OP.*

[2] *This refers to the leverage effect of EU funds, in this case of ERDF. It is calculated as total funds available to final recipients divided by the amount of ERDF financing.*

2 Objectives

The renovation loan programme is implemented under the OP 2007- 2013 for the Development of Living Environment. The loans address very low energy efficiency in Estonian apartment buildings.

The financial instrument, referred to as the 'renovation loan programme' or 'Korterelamute renoveerimislaenu programm' in Estonian, gives advantageous loans that can be combined with grants funded from a scheme called the 'Green Investment Scheme'. The financial instrument was developed by KredEx (Estonian Credit and Export Guarantee Fund) together with KfW Bankengruppe and the Ministry of Economic Affairs and Communications acting as Managing Authority. Its purpose was to assist the renovation of apartment buildings and improve their energy efficiency by 20 to 30%. ERDF financial resources of EUR 17.7 million and a loan from the Council of Europe Development Bank (CEB) of EUR 28.8 million allowed KredEx to enable Estonian banks to grant more favourable loans with longer repayment periods, of up to 20 years, for energy efficiency in apartment buildings. A renovation grants scheme to increase energy efficiency in housing was introduced in 2010. It was motivated by increased demand when funds from the Green Investment Scheme became available and loans were less attractive due to the recession. The loans and the grants are complementary and not competing. There is no overlap in funding. Private financing in the form of ordinary loans has shorter repayment periods and higher interest rates.

Apartment owners have few other options to modernise their homes. KredEx also offers loan guarantees for apartment associations who want loans for renovations. For full-scale reconstruction of apartment buildings, associations can make use of KredEx's reconstruction grant that covers 15%, 25% or 35% of the construction work.

3 Set up of the financial instrument

KredEx, a self-sustaining guarantee fund, was set up in 2001 to support Estonian development through state guarantees for business loans, export guarantees and housing loan guarantees. It also manages other financial instruments such as loans and equity investments from either national, ERDF or ESF funds. Due to its extensive experience with financial instruments and with handling cohesion funds, in 2009 it was appointed as holding fund manager for the renovation loan scheme. As an institution, it acts in the public interest and its products are designed to address market failures and to fill financing gaps in the credit market.

The instrument consists of a renovation loan which can be combined with a grant of up to 50% for the energy audit and a rebate-type grant of 15%, 25% or 35% of the loan principal depending on the energy efficiency achieved. These conditions were determined through market assessments and after evaluating previous initiatives. KredEx, a long-standing player in the apartment renovation sector, disbursed the public and private funds of this financial instrument through two private banks, which offered preferential loans to apartment owners through housing associations.

3.1 Preceding events

In Estonia, about 95% of the housing stock is privately owned. While around 60% was built between 1960 and 1990, about one third was built prior to 1960. Around 75% of the population lives in multi-apartment buildings. A large majority of those buildings are of low quality and have low energy efficiency. When the apartment renovation programme started in 2009, the average annual energy consumption in buildings that had not been renovated was 200-220 kWh/m2 and 40% of this energy went on heating.

Before this programme, Estonia had given apartment associations a grant of 10% of their renovation costs. A government-funded scheme available through KredEx helped improve housing conditions by financing energy efficiency in buildings. This scheme provided a 50% grant for energy audits and expertise as well as 10% for the renovation work itself. This did not, however, fill the market gap since grants were insufficient and were only given after renovations were completed. The scheme had not been very effective since the investment need was high while the scheme's capacity to invest was low. There was a market gap between the energy efficiency needed in apartment blocks and the financial assistance available. Inspired by German renovation schemes, the Estonian government decided to introduce a financial instrument that would make it more feasible for owners to renovate apartments.

This financial instrument was introduced in the OP 2007 – 2013 for the Development of the Living Environment to address an urgent need in Estonian society. The large proportion of privately owned apartment blocks meant that special incentives targeted at owners were needed for renovations on a larger scale.

The State's idea to direct residents towards more energy-efficient solutions, together with market assessments of the Managing Authority, showed that loans from commercial banks would not be enough to achieve the OP's overall energy efficiency aims since each apartment block had to carry out energy audits and find energy efficiencies. Thus a separate grant was introduced to cover such pre-renovation costs.

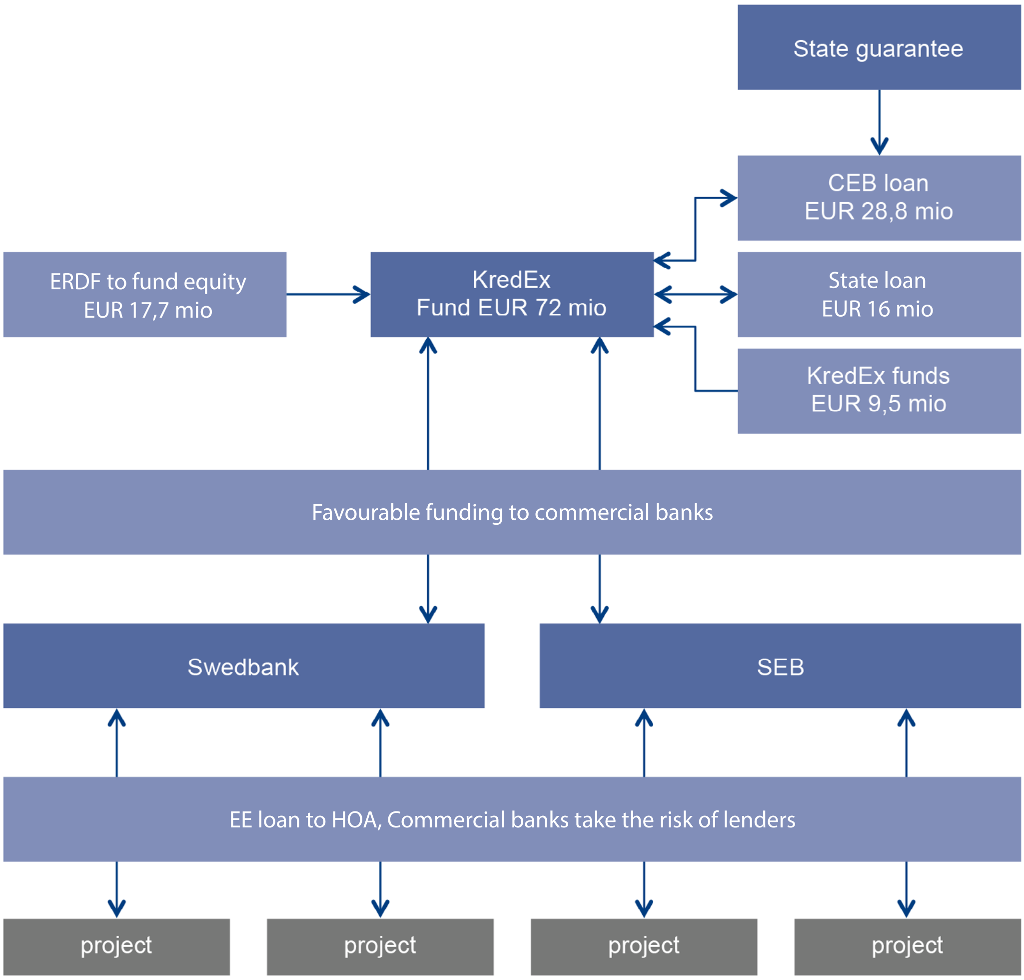
After a thorough design process, the financial instrument was set up by the managing authority in the OP. The Holding Fund manager launched an open procurement procedure among commercial banks in Estonia to find financial intermediaries. These would carry insolvency risk and directly interact with potential and final recipients. These were apartment associations and the entire Estonian 'apartment community'. They were offered loans or guarantees using funds from the financial instrument. The banks had to fulfil certain selection criteria such as having a good rating, an annual turnover of at least EUR 1 million and be willing to accept loan maturities of up to 20 years.

Swedbank and SEB, the two leading commercial banks in Estonia, were willing to participate and both were awarded the opportunity. The two Swedish-owned banks have many years of experience in giving loans to property market projects, including to private homes and apartment blocks.

3.2 Funding and partners

The illustration below gives a summary of the overall funding involved in this financial instrument and participating stakeholders' role in channelling this money to renovation projects. As Holding Fund manager, KredEx collects all contributions from partners. This is EUR 17.74 million from ERDF, a CEB loan of EUR 28.8 million guaranteed by the state, a state treasury loan of EUR 16 million and EUR 4.2 million put forward by KredEx itself at the start of the instrument.

Figure 1: Illustration of how the Financial Instrument is organised



Source: KredEx, 2014

Apart from the initial allocations, the Holding Fund re-invested EUR 5.3 million of ERDF funds that were repaid by banks, as detailed in the table below. The Estonian State Treasury, with its loan of EUR 16 million, was the same as any other lender in this scheme. Overall, this means that instead of just using the EUR 17.7 million ERDF contribution for grants, the managing authority leveraged this amount 3.76 times.

Funding sources at Fund level	EUR (million)
ERDF	17.7
Reinvestments of ERDF funds repaid by banks	5.3
Private:	
• State Treasury (given as a loan to KredEx)	16.0
• Council of Europe Development Bank	28.8
• KredEx own budget and unused grants	4.2
TOTAL	72

3.3 Implementation

This financial instrument was implemented through KredEx, which had experience of assisting apartment associations with renovations promoting energy efficiency. The implementation structure of the instrument took advantage of existing synergies with other KredEx financial products. For instance, apartment associations could fund 50% of an energy audit study through a separate grant scheme. Such a study was compulsory before accessing the renovation loan. A KredEx grant could also cover costs for project preparations in accordance with the energy audit, such as technical inspection, building design documentation, advice, consultancy and coaching. There was also synergy with the grants, loans and guarantees that apartment associations could use to fund their own 15% contribution to the renovation loan scheme. KredEx offered grants financed by the state that could be combined with the ERDF instrument. In addition, apartment associations could also obtain KredEx guarantees when applying for a loan.

In the renovation loan scheme, banks could approve loans directly to apartment blocks without the intervention of the Holding Fund or any other institution, on condition that the association's own 15% contribution was covered by a KredEx grant. After renovations were completed several incentives promoted higher energy efficiency: 15%, 25% or 35% of the loan principal could be transformed into a grant if certain criteria were met. After the loans were disbursed, final recipients provide energy consumption data. The Holding Fund can also carry out on-the-spot inspections among final recipients, which it did for about 5% of projects. If total energy savings after the renovation proved to be 20 to 30% then 15% of the total eligible costs of the renovation was offered as a direct grant. For energy savings of at least 40%, the direct grant was 25%, while apartment owners would get a grant covering 35% of their costs if they achieved at least 50% energy savings. These grants were not offered as part of the same financial instrument, but funds came from the sale of carbon credits.

3.4 Governance

The Ministry of Finance is the **Managing Authority** for all national and regional programmes in Estonia. The leading ministry for this OP is the Ministry of the Environment. Depending on priority axes, the function of implementing agency can be exercised by another ministry and for 'Energy savings in apartments' the Ministry of Economic Affairs and Communications was the implementing agency.

KredEx played the role of a **Holding Fund manager**, managing ERDF contributions to the fund as well as the co-investment from the CEB, its own funds and additional State funds. The Holding Fund allocated funds to the two **financial intermediaries**, who then channelled them to final recipients that met the criteria explained in section 5.3.

Apartment Block Sõpruse 202 – project financed by the financial instrument

The Sõpruse 202 apartment block project has 162 apartments and is a typical apartment block in Estonia's capital Tallinn, constructed in the 1970s. The apartment block is governed by a housing association (in Estonian: korteriühistu) established in 1999.

In Estonia, the association's board is elected at its annual meeting and acts as a legal entity on behalf of all apartment owners. Large investments, like the one supported by this financial instrument, or other important issues are decided at the annual meeting. To make a decision, 51% of apartment owners, in this case 82 owners need to agree. The Sõpruse 202 association already had experience of renovation investments that, according to the chairman, influenced the decision to make this investment. Still, it took years for the board to come to a decision. Once the decision was made in 2012, obtaining grants from KredEx for energy audit etc. and receiving the loan from the bank went very smoothly. Within a year, the renovation work was completed.

4 Strategy

The loan-grant combination in this financial instrument filled the market gaps identified in previous renovation schemes and was not changed during implementation. The loans, given at better conditions than commercial ones, were offered to buildings with at least three apartments according to specific requirements for the works to be financed.

4.1 Investment strategy

The financial instrument's investment strategy was to open up an opportunity for energy savings on a broad national scale by involving banks and targeting private apartments. Specifically, it sought to achieve energy efficiency of at least 20% in apartment buildings of up to 2,000 m2 and of at least 30% for larger buildings. In most cases, apartment owners did not have enough resources to fund the project or support the costs of technical documentation. Therefore, when the financial instrument was designed, it was obvious that synergies between grants and loans were needed to achieve the expected results. State-funded grants through KredEx would cover part of the technical documentation, while also providing incentives to promote greater energy efficiency. As described in section 3.3 above, apartment associations could receive a grant of up to 35% of the total costs of renovation if they met certain criteria.

The financial instrument's design, with its 'grant-incentives', shows the managing authority's commitment to improving energy efficiency. The higher percentage of grants available for meeting higher energy efficiency criteria is an important part of the strategy to make apartment owners more willing to contribute to overall energy-saving objectives.

4.2 State Aid

The issue of State aid was dealt with at a very early stage during the definition of the investment strategy and design of the financial instrument. The Ministry of Finance as Managing Authority, together with Holding Fund manager KredEx, had a number of discussions with the Directorate General for Competition at the European Commission, and the financial instrument was deemed to comply with state aid rules. The Holding Fund manager organised an open and unconditional competitive tender to find commercial banks that would provide renovation loans to apartment associations. The candidates were assessed according to criteria such as the bank's rating, previous experience of working with energy-saving projects, annual balance sheet and economically advantageous handling fee and risk premium. The process ensured that commercial banks passed on the instrument's advantages to final recipients. In order to comply with state aid rules, final recipients must only use the loan to fund energy efficiency works specified in the energy audit. Documentation requirements, such as an energy consumption report for 3 calendar years preceding the loan application, are more onerous than for a commercial loan.

4.3 Financial products and terms

The renovation loan scheme helps apartment owners' associations cover up to 85% of the total costs of renovating their building to make it more energy efficient. An energy audit is required prior to loan approval. Consequently, the loan would only cover renovations detailed in the energy audit. Such loans came at advantageous conditions, such as up to 20 years maturity and a fixed interest rate of no more than 4.5% for 10 years. On average, the interest rate was about 4%. The lending banks were responsible for evaluating the associations' credit risk and they could disburse loans in up to 8 instalments, releasing each tranche only after the previous one was used. Once the loans were repaid, banks used these funds to grant other loans. As of September 2014, a total of EUR 5.3 million had been re-used and thus re-inserted into the scheme.

Apartment associations had to finance at least 15% of the renovation costs. Parallel bank loans were possible and KredEx could offer guarantees for these. Associations could also take advantage of a national grant scheme introduced in 2010 and backed by funds obtained from the state's sale of carbon certificates. This scheme provided grants of 15%, 25% or 35% of the total renovation costs, according to the level of energy efficiency achieved. The funds for these grants were not part of the renovation loan scheme and were not ERDF-funded.

ERDF-financed 'soft support' through this instrument such as advice, coaching or help with preparing documentation, as well as state-funded grants from a different scheme, were also offered through KredEx. Soft support included advice on the general assembly of apartment associations, as in the example of the Sõpruse 202 building renovation. Such soft support was essential for owners to understand their project and to make sure they received suitable solutions. Partly as a result of such soft support, energy savings considerably improved during the implementation period as shown in the table in section 5.1.

4.4 Final recipients targeted

This financial instrument targets energy efficiency renovation projects led by associations of apartment owners of buildings with at least 3 apartments and built before 1993. The renovation loans are not available to individual apartment owners, but only to associations of owners. Such non-governmental associations are common in Estonia and are governed as legal entities by apartment owners. Most renovations in Estonia take place via such associations since they have both the necessary governing structure and can act on behalf of all owners. These associations normally have a chairman who takes care of daily business and larger buildings also have an administrator paid for by inhabitants. The association's board makes day-to-day decisions, while larger investments are decided at the annual meeting.

The financial instrument appealed to final recipients because it filled a market gap in the financing of renovations and it was promoted in a nationwide marketing campaign. This campaign combined an array of marketing materials including leaflets, signs, billboards, videos and national TV campaigns. The campaign won the Golden Drum award, a prize for innovative communication campaigns. Marketing also involved seminars, the promotion of good practice examples and close cooperation with the Union of Apartments' Associations.

Figure 2: Billboard advertising the financial instrument managed by KredEx

Source: Spatial Foresight, 2014

4.5 Project types

As mentioned before, renovation loans were for buildings built before 1993 with at least three apartments, poor energy efficiency and low-quality building standards. The main recipients of this financial instrument were large apartment blocks in Tallinn, where such buildings predominate. Similar blocks of apartments in other towns in Estonia, although on a smaller scale, also benefited.

Apartment owners' associations had to propose a project that would save at least 20% of energy consumption for buildings smaller than 2.000 m2, or 30% otherwise. Such projects had to be based on an energy audit that could be financed by KredEx through a 50% grant. Since such projects concerned the entire building, they had to be approved by at least half of the apartment owners.

4.6 Changes in Strategy

In 2013, the managing authority decided to change the maximum fixed interest rate for renovation loans from 4.5% to a maximum of 3.5%, in line with current credit market demand and supply conditions. No other changes were made in the strategy during implementation.

Apartment block Sõpruse 202 – project financed by the financial instrument

The apartment association found out about the financial instrument because energy efficiency improvements had already been discussed at a series of general assemblies. The main challenge for the association was reaching an agreement among the majority of owners to take advantage of the financial instrument – an experience shared by many associations of apartment blocks in Estonia. Use of the instrument itself and the procedures involved were considered simple compared to the 'internal politics of apartment associations', according to the Sõpruse 202 chairman. The association also said that without the Holding Fund's support this investment would most probably not have taken place. The 'soft' support and coaching given by KredEx during the planning stages was an important factor in the project's success.

5 Achievements

The financial instrument achieved just over 40% energy savings in the 619 apartment blocks it financed. The EUR 17.7 million from ERDF for this instrument induced EUR 72 million in loans (including the re-use of repaid resources) for apartment associations, with an average interest rate of 3.94%.

5.1 Output

Funding was distributed across the implementation period as shown in the table below, which also presents a summary of achievements.

YEAR	LOANS			HOUSES RENOVATED				
	Total amount (EUR million)	Average size (EUR)	Average interest (%)	Number of buildings	Number of flats	Net living space (m2)	Average energy savings (%)	Average construction year
2009	4.6	71,854	4.49	64	2,200	148,403	31.75	1972
2010	12.5	83,939	3.95	149	6,018	394,310	34.54	1970
2011	17.2	103,660	4.00	166	6,195	423,961	39.18	1969
2012	15.3	135,300	3.85	113	3,847	221,162	44.56	1967
2013	18.2	176,923	3.57	103	3,537	225,587	48.69	1971
2014*	4.2	173,638	3.72	24	882	48,615	47	1973

** - Information until September 2014*

At the end of September 2014, 640 individual agreements had been made for 619 buildings containing 22,676 apartments. The total loans were EUR 72 million and the average was for EUR 112,556. The total investment was EUR 99.6 million. The financial instrument covered 1,457,651 m^2, with an average project size of 2,359 m^2. The average project was for 36.6 apartments constructed, on average, in 1970. The average interest rate was 3.94%, and the average energy savings were 40.15%.

Apartment block Sõpruse 202 – project financed by the financial instrument

The project resulted in an energy efficiency improvement of 63% - resulting in a shorter repayment time than initially expected. The association underlines that other improvements included a better living environment, better temperature in apartments and an increased market value for the entire block of apartments.

This project may have taken place without the financial instrument, since the association had a long-term strategy including energy efficiency measures. However, the investment would not have gotten off the ground so quickly and easily. Furthermore, the combination of 'soft' support, grants and FI played a key role in the project's successful implementation.

6 Lessons learned

The combination of loans and grants addressed an urgent need for Estonians and was implemented in an efficient manner thanks to clear rules and guidelines for banks and recipients. Although the scheme's implementation went smoothly, the most time-consuming process was obtaining agreement within apartment blocks. Guidance and counselling from the Holding Fund manager was crucial in showing potential recipients the benefits of this scheme. Although the scheme will not be continued due to current market offers, 'soft' support schemes financed by ERDF funds will continue to provide apartment owners with help for energy audits and for other investments to improve their homes. Loans will then be accessed from banks on the commercial market.

6.1 Main success factors

The financial instrument managed to **combine financial products and address urgent needs** of end users at both the national and local level. The managing authority perceived a clear sense of urgency and **used a comprehensive set of measures to address the market gap**. These were grants for covering technical documentation to help projects get started, advantageous loans to fund projects, technical assistance to guide recipients through implementation and grants to make recipients save as much energy as possible. **Clear rules and guidelines for banks and end users** made the instrument very comprehensible and user- friendly.

6.2 Main challenges

There were no major challenges in the set up of the financial instrument itself. Most often, the main challenge was obtaining an agreement in the general assembly of apartment associations. A majority vote to start the project normally took years. Here, 'soft' support was essential, since there is always a risk of asymmetric information when banks promote financial products to individuals or groups of individuals. Advice and support provided at the general assemblies proved very important.

During 2013, site visits were carried out by the Holding Fund to verify implementation of the renovation loan programme. The focus of these visits was to find out whether loans and guarantees were given to the end-users according to the conditions of the programme and whether end users used the loans and guarantees according to the objectives.

6.3 Outlook

The ex-ante assessment of FIs is not finalized in Estonia, but according to available information/preliminary assessment it seems that this financial instrument will not be implemented under ESI Funds 2014-2020.

The main reason is that very low interest rate loans are now offered by commercial banks, so there is no real need for this type of intervention. The financial instrument partly contributed to expanding the market for financial products for renovations. Apartment owners now have more financing options than before. However, 'soft' support such as grants and advice is most probably going to be continued. Grants should also be available and loans will be from commercial banks rather than from ESI funds. If market conditions deteriorate as they did in 2009, the managing authority has a financial instrument that can be quickly set up.

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