## Estonian case: KredEx revolving fund

Mirja Adler 11<sup>th</sup> June 2013



#### KredEx: solid foundation

- Founded in 2001
- Under the jurisdiction of the Ministry of Economic Affairs and Communications
- State guarantee limit for:
  - Business loan guarantees 96 million
  - Export guarantees 64 million
  - Housing loan guarantees 96 million
- Fully accredited for using ERDF and ESF
- Member of AECM, NEFI, IUHF





### KredEx business volumes

mio EUR	2012	2011	2010	2009	2008
Guarantees issued	68	60,0	83,3	82,7	51,8
Enterprises	58	51,6	67,4	51,4	23,3
Exports	-	-	7,4	21,4	10,6
Credit insurance	129	114,0	29,2	-	-
Housing	11	8,4	8,5	9,8	17,9
Guar. Exposure	149	145,9	159,5	136,8	100,8
Loans issued	13	19,0	74,3	33,9	0,5
Losses paid	4	5,6	3,7	2,8	0,3
Loss reserves	8	8,3	9,1	8,1	6,2
Equity	71	58,2	61,4	53,3	37,7

## Housing stock

- ~95% housing stock is in private ownership:
  - ~60% of the housing stock has been built in 1960-1990
  - ~30% before 1960
- ~75% population living in multiapartment buildings
- Low quality and low energy efficiency
  - Average energy consumption per year in buildings which have not been renovated 200-220 kWh/m²
- Energy used in buildings ~40%





# Who is responsible for the condition of the building?

- Owner
- Housing Associations legal body
- Community of apartment owners - no legal body
- In all cases all apartment owners (private persons) are responsible for decisions and payments





## Measures for EE in housing

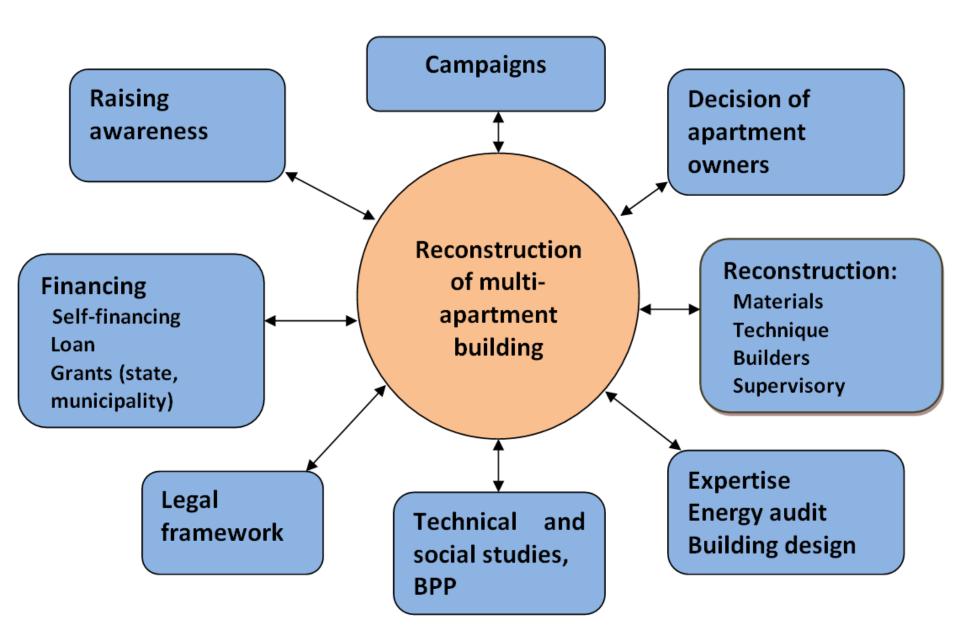
- Studies about situation in buildings
- Favorable loan from revolving fund
- Grants (from state and municipalities):
  - energy audits, project design documents
  - renovation



- Consultants to help by decision making at GA
- Awareness raising campaigns
- Best Practice Projects
- Partners:
  - Local municipalities
  - Estonian Union of Housing Associations
  - Estonian Union of Facility Managers



## Holistic approach



## Previous measure – grant scheme

#### 2003-2007 state grants all over Estonia:

- For energy audits, building designs and technical expertise 50% of the costs
  - Supported 3 800 buildings
  - Totally 1,4 million €
- For renovation, 10% of the costs
  - Supported 3 200 buildings
  - 17 million m<sup>2</sup>, totally 11 million €
- Problems:
  - Insufficient funding
  - Singel works
  - Grant available after payments

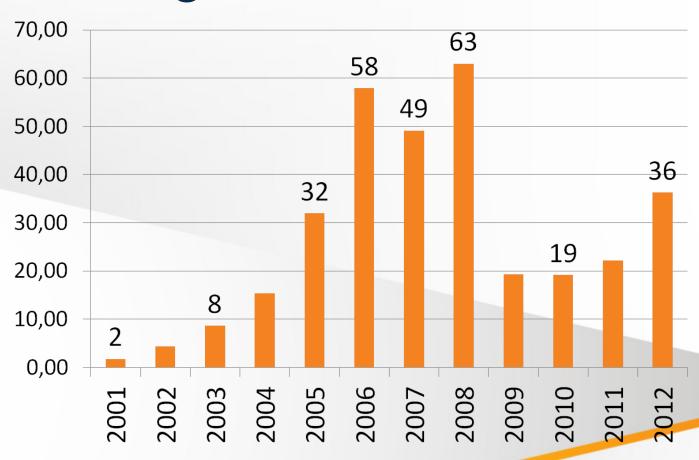


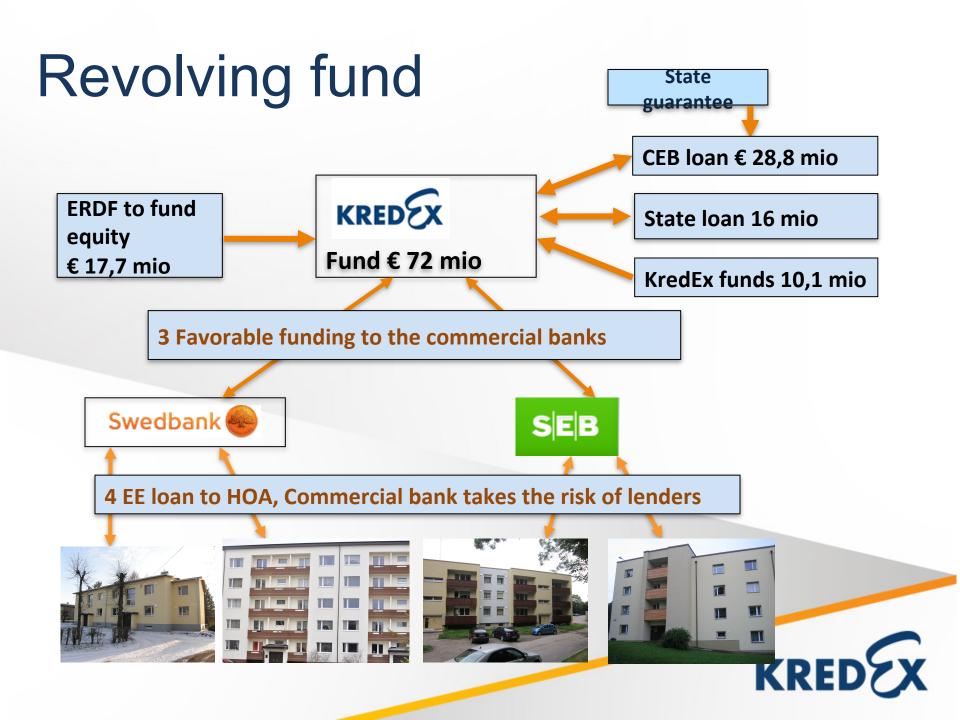
## From renovation grants to revolving fund – why?

- Revolving character (re-usage of the funds)
- Funds stay in state
- Leverage effect (1/3 ERDF, 2/3 additional funds)
- Support scheme (10% support) versus loan scheme (state support is even bigger)
- Loan is needed for reconstruction anyway
- Opportunity also to smaller buildings
- Easier to administer, lower administrative costs
- End-beneficiary is used to take loan



## Loans for apartment buildings in Estonia, mio €



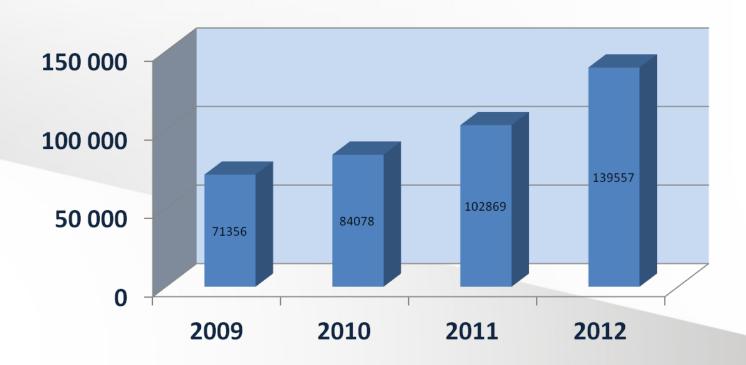


## Renovation loan for apartment buildings

- Main purpose energy efficiency (at least 20 or 30% energy saving depending of the size of the building)
- Energy audit is obligatory, renovation according to energy audit (by priorities)
- Loan maturity: up to 20 years
- Interest: up to 4,5% fixed for 10 years, average 4%, from 2013 below 3,5%
- No collateral is needed

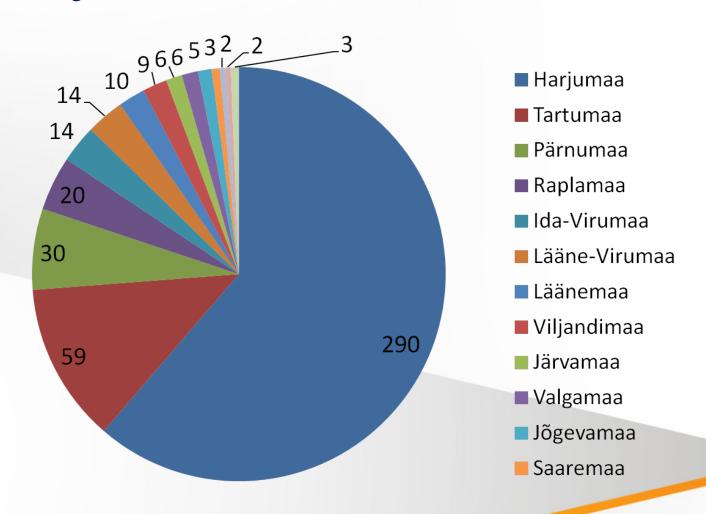


## Average loan amount €/building





## Loan by counties





## Grant for reconstruction

- Fund for the grant from Green Investment Scheme (selling AAU)
  - An Assigned Amount Unit (AAU) is a tradable 'Kyoto unit' or 'carbon credit' representing an allowance to emit greenhouse gases comprising one metric tons of carbon dioxide equivalents calculated using their Global Warming Potential
- In total 30 million € ~ 140 million € for investment
- Goal is to renovate multi-apartment buildings completely, to achieve:
  - energy saving from heating costs, considering all requirements for indoor climate
  - Achieve higher energy class
  - To increase use of renewable energy



## Grant 15, 25 or 35% Do more – get more

- 15%
  - fulfill the terms for renovation loan,
  - energy saving 20 or 30%, according to the size of the building
  - Energy label E, energy consumption < 250 kWh/m²</li>
- 25%
  - roof, facade, windows (U 1,1) heating system,
  - energy saving at least 40%
  - Energy label D, energy consumption < 200 kWh/m²</li>
- 35%
  - roof, facade, windows (U 1,1) heating system, heat-recovery ventilation system,
  - energy saving at least 50%
  - Energy label C, energy consumption < 150 kWh/m²</li>
- In all the cases it is obligatory to fulfill the criteria for indoor climate!

## Results

#### Loan (€ 49 mio)

- Start 24.06.2009
- By 31.12.2012:
- 512 contracts/493 houses
- 18 281 apartments,
  42 000 inhabitants
- Ca 1 190 000 m<sup>2</sup>
- Total € 49 mio
- Investment € 68 mio
- Average € 139 560
- Expected saving 38%

#### **Grant (€ 24,2 mio)**

- Start 30.09.2010
- By 31.03.2013:
- 597 appl./498 houses
  - € 21,5 mio
- 577 pos decision/481 houses

€20,9 mio / Inv. € 81,8 mio

- 15% € 4 mio 288
- 25% € 6 mio 182
- 35% € 11 mio 107
- Ca 1 120 000 m²
- Average 26%, 36 000 €
- Saving 41,3%



### Results combined

- 635 buildings, 23 451 apartments, 54 000 inhabitants
- Ca 1 550 000 m² (6,7% from total ap. m²)
- Total € 49 mio credit, € 20,8 mio grant
- Investment € 87,2 mio, average € 137 000
- Expected saving 39%, 75 GWh per year
- Expected saving 20 years 1 500 GWh
- Changes in behavior:
  - From single works to complete renovation
  - Heating costs are measured by apartments



## Awareness raising

- Campaigns since 2006
- Press-conference in public media
- Info days/seminars/workshops to end beneficiaries, builders, energy auditors, project designers, local municipalities
- Advertisements in newspapers/ magazines
- Internet (website, banners, news, articles)
- Direct mails
- Leaflets/booklets
- Cooperation with banks





## Plans for the 2014-2020

- Continue with similar measures for energy efficiency reconstruction of multi-apartment buildings:
  - Revolving fund for favorable loan
  - Reconstruction grant



## Examples of renovated houses



### Mäe 11, Põlva

- 1 590 m² (36 ap. 2012)
- Investment € 355 164, 223 €/m²
- Grant 35% € 123 922, 78 €/m²
- Credit € 221 657, 20 years
- Expected savings 69%





## Tartu mnt 27C, Elva

- •1029 m² (24 ap. 2011)
- •Investment € 127 000, 123 €/m²
- •Grant 35% € 44 450, 43€/m²
- •Credit € 76 121, 9 years
- Expected savings 70%
- Savings after 1 year 60%





## Tammsaare 5, Tartu

- •1516 m² (20 ap. 2011)
- •Investment € 103 400, 68 €/m² (roof and half heating system had been renovated before)
- •Grant 35% € 36 200, 24 €/m²
- •Credit € 14 623, 15 years
- Expected savings 60%
- Savings after 1 year 56%







### Kooli 2, Tabasalu

- 3 933 m² (60 ap. 2011)
- Investment € 404 354, 102 €/ m²
- Grant 35% € 141 524, 36 €/ m²
- Credit € 262 830, 20 years
- Expected savings 50%
- Savings after 1 year 46%







## Tehvandi 7, Otepää

- 2 066m² (28 ap. 2011)
- Investment € 266 157, 129 €/m²
- Grant 35% € 92 731, 44 €/m²
- Credit € 173 000, 15 years
- Expected saving 50%
- Savings after 1 year 70%





## Rukki 11, Tartumaa

- 2 737m<sup>2</sup> (36 ap. 2011)
- Investment € 310 000, 113 €/m²
- Grant 35% € 108 500, 40 €/m²
- Credit € 201 500, 20 years
- Expected saving 65%
- Savings after 1 year 45%







# Project "Healthy and energy efficient home" Sõpruse pst 244

- Built 1966
- Panel building
- 60 apartments, 2967 m²
- 2010-2012

#### Partners:

- Swedbank lead partner
- Ministry of Economy and Communications
- KredEx
- Tallinn University of Technology
- Eesti Energia
- Tallinn





## Renovation budget

Work	EUR	€/m²
Roof	40 700	15
Facade and balconies	180 800	67
Windows	16 500	
Heating system	112 000	41
Heat recovery ventilation system	100 000	37
In Total	450 000	167
Grants	220 000	73
Loan	242 000	80



## Monthly payment

Total investment	€	450 000
Grant from KredEx	35%	157 500
Loan amount	€	292 500
Monthly loan payment (interest 4,07%)	€/m²	0,66
Renovation fund today	€/m²	0,32
Renovation fund needed (loan + 15%)	€/m²	0,77
Growth of renovation fund	€/m²	0,45
Heating costs per year	MWh	484
Heating costs per year (MWh=63€)	€/m²	0,95
Savings from heating 50%	€/m²	-0,47
Renovation + heating before	€/m²	1,27
Renovation + heating after	€/m²	1,24





## Thank you!

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