

How to implement a successful energy efficient renovation programme in housing sector. Case of Estonia.

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The presentation gives an overview:

- Statistics about housing sector in Estonia
- The most important challenges in the process of renovation of the housing stock
- Current financing opportunities for renovation
- Best practice examples
- Conclusions

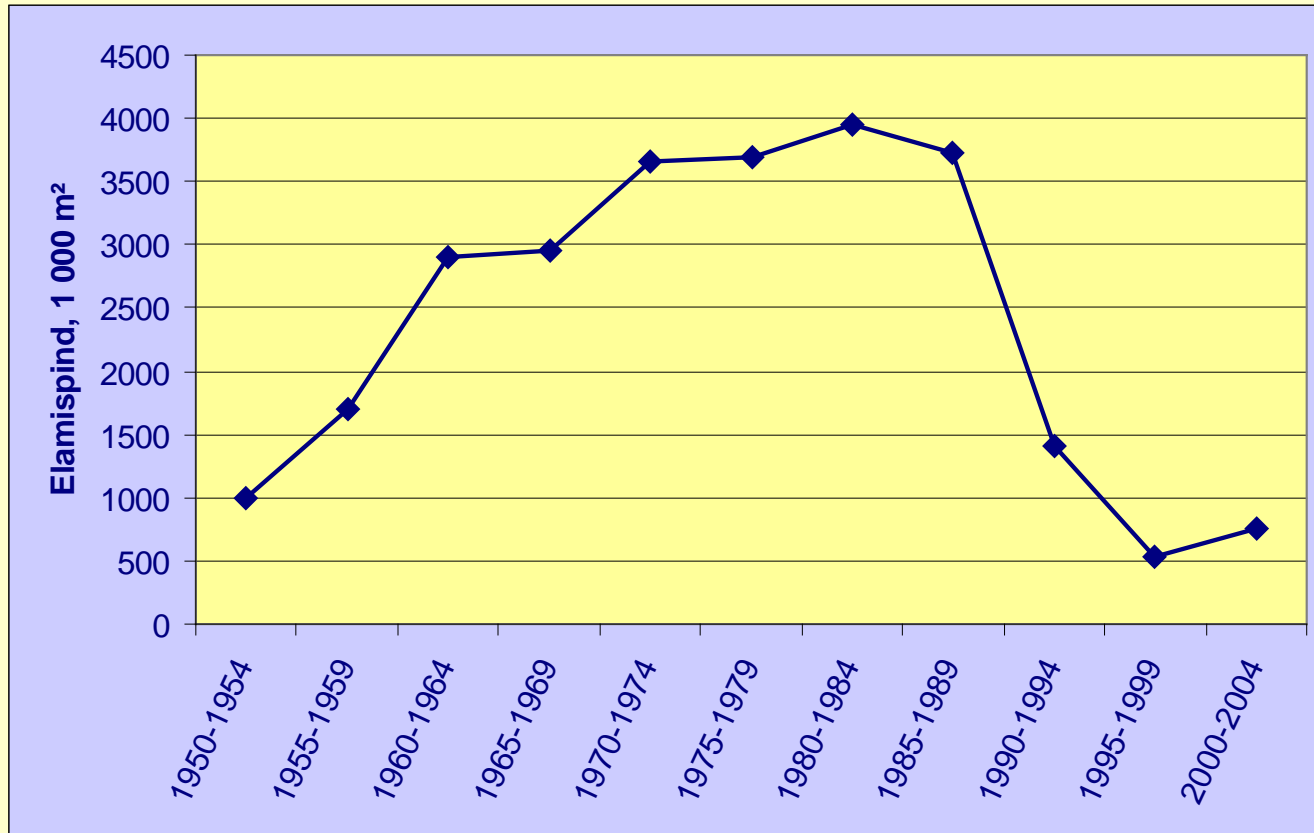


Statistics about social housing in Estonia

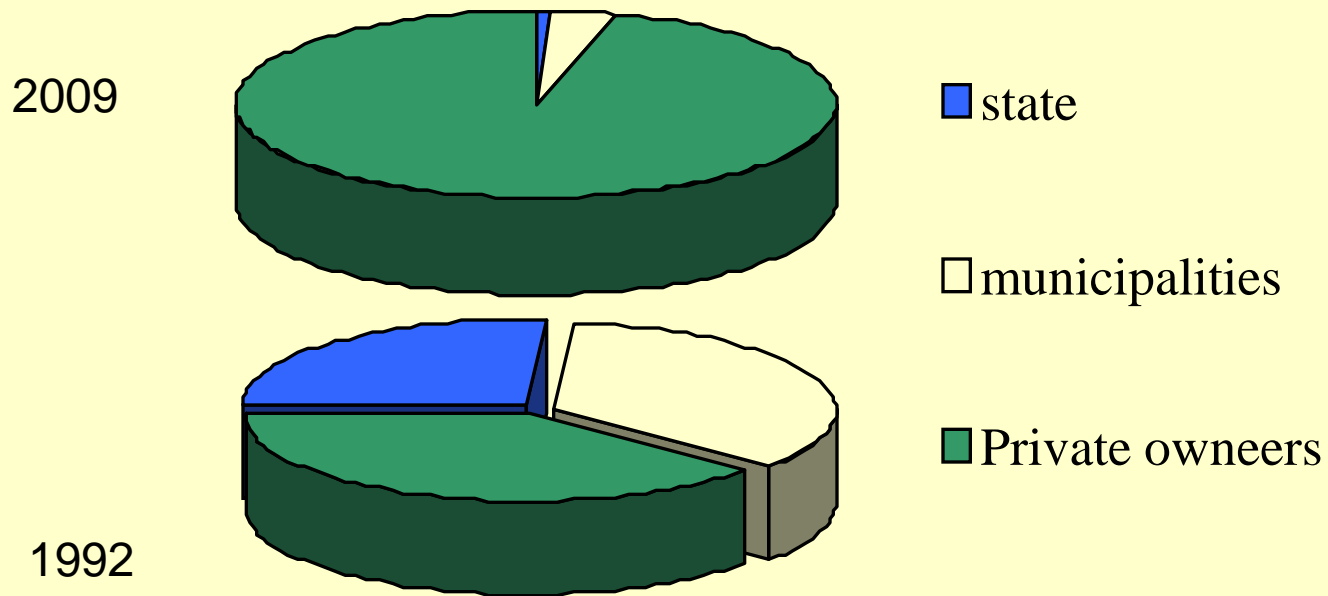
- 98% of all the apartments privatised
- Ca 10 000 apartment associations and cooperatives today
- Ca 550 million EUR of annual turnover
- 60 % of the housing stock is built between 1960-1990, 30% built before 1960
- Low quality and level of energy-efficiency of buildings (average energy consumption 200-400 kWh/m²)
- **70% of Estonian population lives in apartment buildings**



Construction of apartment buildings



Ownership in apartment buildings stock



The most important challenges in the process of renovation

- Low construction quality
- Broad-scale shared ownership in multi-apartment houses; decision-making is fully delegated to the owners of the properties; collective decisions for investments are required
- New class of private owners - new housing culture (cooperative movement, democratic system, responsibility)
- Raise in the level of unemployment
- Influence of economic crisis
- Raise of energy prices
- Energy issue is becoming a social issue



Local support measures to retrofitting activities

- 2000 - Pilot project with Tallinn municipality was started – 100 associations made technical expertise for their house
- Several municipalities (Tallinn, Paide and Rakvere) have offered a subsidy for housing co-operatives' loan borrowing.
- 2005 - Tallinn supported apartment associations loan borrowing with 200 000 EUR. The project enabled associations to take a loan with an interest of 2,85 – 3,8 %. With the help of this support 4 million EUR were invested to the retrofitting works.
- 2001 -2009 Municipal grants in several municipalities for improvement of outdoor environment, retrofitting of fascades, common cleaning works etc



Credit to apartment buildings

- Revolving fund for energy efficiency was created in KredEx in 2008
- The fund includes finances from:
 - 1) KredEx Fund - EUR 57 million (EU structural funds)
 - 2) ERDF - EUR 17 million
 - 3) Development Bank (CEB) - 29 million
- Main purpose - energy efficiency measures:
 - to save at least 20% of energy in buildings up to 2000 m²
 - to save at least 30% of energy in buildings more than 2000 m²
- Self-financing 15%
- Energy audit is obligatory
- Renovation according to energy audit (by priorities)
- Loan period: up to 20 years
- Interest rate: up to 4,7% (first tranche, average 4,5%) fixed 10 years



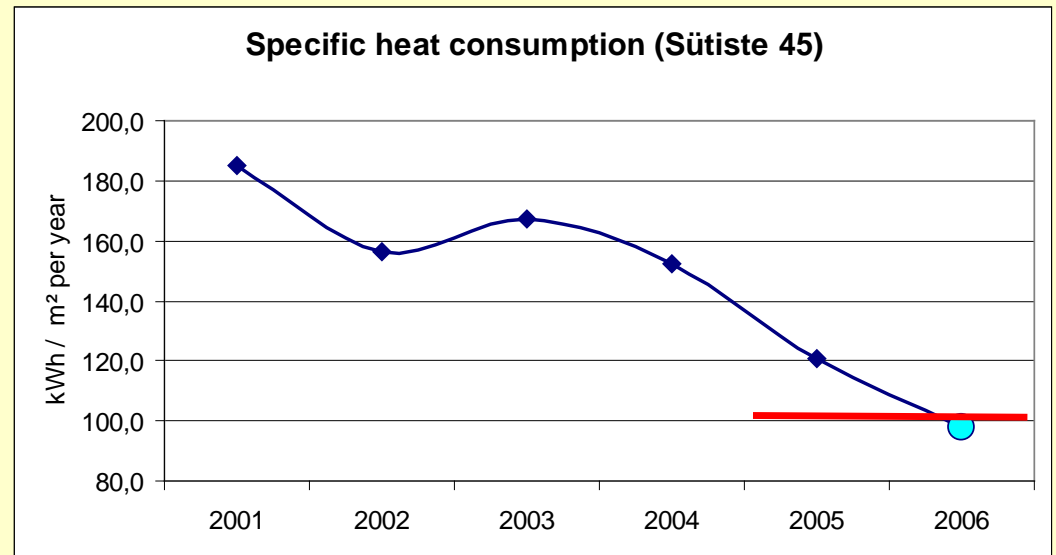
Selection of works supported by the fund

- Thermal insulation of the roof
- Thermal insulation of the walls/facade
- Thermal insulation of the cellar roof
- New windows/staircase windows/outdoors
- New heating system/renovation of the heating system
- Renovation of the ventilation system/new ventilation system
- Installation of renewable energy devices
- **The fund supports comprehensive retrofitting**



Best practice example

- 9 storey building
- 72 apartments
- 2001 insulation of walls + renovation of heating system and installation of thermoregulators
- 2002-2003 installation of individual heat allocator based on radiators
- **100 kWh/m² is achievable if comprehensive renovation has been finished and consuming habits of the residents have been changed**



Thank You!

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