

7TH INTERREGIONAL EVENT

Tartu, Estonia

16 – 18 January 2018



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INTRODUCTION

The Financial Instruments for Energy Renovation Policies (FINERPOL) Project aims to promote energy policies oriented to increase energy efficiency of existing stock, by improving access to investment finance. It is supported by European Regional Development Funding provided through the Interreg Europe Programme.

FINERPOL partners aim to develop regional Action Plans to overcome barriers to energy retrofit of public and private buildings and public lightings, making use of EU funds, and national and other sources as appropriate, to attract investment finance from a range of sources for energy efficiency renovations.

FINERPOL is a partnership project of nine European countries, with Spanish company Extremadura Energy Agency as a Leading partner. The project also involves other agencies and governing bodies from Czech Republic, Great Britain, Greece, Italy, Portugal and Germany. Among others, one of the main objectives of this project is the interregional exchange of local experiences and best practices to learn from each other.

Project partners:

- *Extremadura Energy Agency (Agenex)*
- *General Direction of Industry, Energy and Mines, Extremadura Regional Government, Spain*
- *Plymouth City Council, UK*
- *Western Macedonia Region, Greece*
- *City of Prague, Czech Republic*
- *University Centre for Energy Efficient Buildings, Czech Technical University in Prague, Czech Republic*
- *Climate Protection and Energy Agency of Baden Württemberg, Germany*
- *CEiiA – Intelligence in Innovation, Innovation Centre, Portugal*
- *Autonomous Province of Trento, Italy*

7th INTERREGIONAL EVENT

SUMMARY

From January 16 to 18, the cities of Tartu and Tallin hosted the 4th Project meeting of Social Green and the 7th Interregional Event of FINERPOL project which included a Political Board Meeting, workshop and study visit.

The Tartu Regional Energy Agency (TREA) hosted this **joint seminar on innovative financing schemes and good practices in the financing of energy efficiency in the social housing sector**. There were several visits and discussions about energy efficient renovation of residential buildings in different cities.

The guests were introduced to Estonia's successful experience with the Kredex financial scheme and its results, plus the initiatives in Tallinn city in relation to municipal housing.

The meeting lasted for three days, between 16–18 January: the two first days in Tartu, third one in Tallinn.

AGENDA

PARTNERS MEETING

Venue: Dorpat Conference Center, Soola 2, Tartu

16th January (Tuesday)

09:30	Reception and registration
10:00-13:00	<p>Common, Social Green and FINERPOL projects, seminar about financing of energy efficiency of social housing</p> <p>Welcome from Tartu City government- Mr. Raimond Tamm, Deputy Mayor of City of Tartu</p> <p>SOCIAL GREEN project – a brief overview of project and outcomes- Ryan Weber, Nordregio</p> <p>FINERPOL project – a brief overview of projects and Practices in Europe on financing of energy efficiency in social housing – Javier Ordoñez, Agenex</p> <p>Estonian model on financing of renovation of multi-apartment buildings- Ms. Regina Michaelis, Adviser of Department of Construction and Housing, Ministry of Economic Affairs and Communications</p> <p>Estonian financing schemes for housing sector- Mrs Triin Reinsalu, Head of the housing and energy efficiency division</p>
13:00-14:00	Lunch
14:30-18:30	Project meetings in parallel Social Green and FINERPOL (separate rooms)
19.00	Common dinner

17th January (Wednesday)

09:00-12:00	Study Visit Tartu , Two renovated buildings in Tartu
12:00-14:00	Lunch
14:00-17:15	Project meetings separately by projects And Political Board Meeting
16:00	Trip to Tallinn

18th January (Thursday)

08.30:00-10:00	Introduction to study trip. Venue: conference room of Meriton hotel
10:00-12:00	Study visit in Tallinn , to "Teachers house"- the newest nearly zero building in Estonia. Developed by City of Tallinn, as municipality building stock, and meant for teachers. University student house (dormitory) renovated in 2017 to nZEB building level
12:00-13:00	Lunch and conclusion

COMMON PROJECTS MEETING

The both Social Green and FINERPOL projects, seminar about financing of energy efficiency of social housing.

The joint seminar was opened on 16th of January by deputy Mayor of Tartu, Mr. Raimond Tamm. He welcomed the participants on behalf of city government and introduced briefly the trends of Tartu city in increasing the energy efficient building (including the municipally owned buildings).



Figure 1. Deputy mayor of Tartu, Mr. Raimond Tamm

Additionally, Mr. Tamm gave a brief overview of international projects in which Tartu city is involved and that are linked to implementing the smart city concept.

The coordinator of Social Green project, Mr. Ryan Weber from Nordregio, introduced the objectives, activities and expected results of the project.



From FINERPOL project, the Extremadura Energy Agency (AGENEX) project officer Mr. Javier Ordoñez Muñoz also reviewed the project in general.



Mr. Martin Kikas, from Tartu Regional Energy Agency, introduced the minimum energy performance requirements for buildings in Estonia – the ones that must be taken into consideration both by the construction of new buildings (including social premises) and by the renovation of existing buildings.



In addition to reducing the energy losses of the boundary structures of the building (insulating the building), the Estonian legislation also sets up the minimal standard of indoor climate requirements that must be accomplished by building and renovation.

Minimum requirements EP

Social Green

	Multi-apartment buildings EP, kWh/m ² a
Minimum requirements (renovated building)	180
minimum requirements (new building)	150
Low-energy building	120
Nearly-zero building (nZEB)	100
C	121-150
B	101-120
A	< 100



Mr. Lauri Suu gave a comprehensive overview of financial products offered by Kredex – the provider of financial services in Estonia. Kredex offers the financial solutions to apartment buildings associations, their goal is to increase the energy efficiency through renovation of buildings.



Figure 3. Mr. Lauri Suu gave a comprehensive overview of financial products offered by Kredex.

In his presentation "Financing energy efficiency in multi-apartment buildings in Estonia", the main focus was on issues related to the financing of apartment buildings and the support offered by Kredex.

Mr. Suu presented the background of grants for apartment buildings and the story of reshaping them over the years, he also gave the detailed overview of support requirements and the results of the grants usage so far.

Example: Sõpruse pst 202, Tallinn

- 11 375 m² (162 ap. 2012-2013)
- Investment € 2 062 000, 181 €/m²
- Grant 35% € 721 600, 63 €/m²
- Credit € 1 340 000, 20 years
- Expected savings 65% ~500 MWh
 - Triple windows
 - Brought to the frontage of facade
 - Heating system
 - Ventilation system
 - Facade, roof



The afternoon of the first meeting day was spent in parallel work and meeting sessions of both projects.



Figure 4. All participants in the joint Social Green and FINERPOL seminar in Tartu.

Study Visits

The second day of the seminar, 17th of January, started with study visit in Tartu to introduce two dwelling houses that were recently renovated with the help of Kredex grant. In Tallinn, on the third day, the Raadiku municipal house, the newly-built Teachers Home and the TTU dormitory building were visited.

- ***Storey building in suburban area Ilmatsalu***

The first house, locating in suburban area Ilmatsalu, is a 3-storey building with 18 apartments from the beginning of 1970s. As a result of renovation, the energy consumption of the building decreased from an estimated 273 kWh/m² per year to 118 kWh/m² per year. The representative of the construction company gave an overview of the work done during the renovation. The ventilation with heat recovery system and the solar collectors that were installed to the building, were introduced more thoroughly.



Figure 5. Retrofitting project in Ilmatsalu.

- ***9-floor dwelling in the Anne Residential District***

The second object in Tartu, a nine-floor dwelling in the Anne residential district was presented by a renovation project manager who is also a resident and a member of board of the apartment association of the same house. The main results in numbers and setbacks of implementing the project were discussed during the visit.



Figure 6. Retrofitting of the nine-floor dwelling in the Anne residential district, Tartu.

Right after the brief project meetings in the afternoon, the whole group of guests and organizers turned to Tallinn where some additional presentations of experiences of managing the municipal and social dwelling were awaiting on next day.



Presentations from Tallinn study visits in the Raadiku municipal house, the newly-built Teachers Home and the TTU dormitory building were visited

January the 18th, the last day of seminar, started in Tallinn Meriton Hotel conference room where the project assembly was greeted by deputy mayor of Tallinn, Mrs. Eha Võrk. She briefly presented the orientations of Tallinn City Government in relation to development of municipal housing.

Mr. Oliver Eglit and Mr. Hardi Alliksaar from Tallinn City Property Department gave a more detailed overview of the management of dwellings in Tallinn, its housing construction programs and social and municipal housing built around them. Besides, they also introduced the ways of how the municipality could and should contribute to the development of housing in general.

Another representative of Tallinn City Property Department, Mr. Evgeny Maksimov, introduced an innovative method of building management – Building Information Modeling (BIM) system which helps to achieve greater efficiency and better results in the design and construction of new buildings.



The head specialist of Tallinn Energy Agency (TEA), Mrs. Pille Arjakas, gave an overview of the goals and main activities of TEA.

She also introduced the efforts of Tallinn city to become Europe's Green Capital, and the criteria that are necessary to reach it.

Mr. Peep Pihelo, the spokesman of Tallinn University of Technology (TTU), gave a comprehensive overview of an innovative apartment building renovation project in which, one of university's dormitories was renovated to meet the nearly zero building requirements. One of the new solutions used in the project was, for example, insulating the building with the panels that were pre-fabricated in factory. The described dormitory itself was also visited later that day.

After the introductions and presentations, the Raadiku municipal house, the newly-built Teachers Home and the TTU dormitory building were visited.



Figure 7. Presentation from Tallinn Regional Energy Agency and visit to renovated university dormitory.

National news coverage

available: http://www.tallinnatv.eu/videos/munitsipaalelamud%20Rene_OIGE.mp4

- **Deep energy renovation of old concrete apartment building to nZEB by using prefabricated modular elements**



This building is an example of deep energy renovation with prefabricated modular elements.

The windows, tubes, ventilation ducts facade boards were pre-installed at the factory.



Building process

