



Study Visit

October 18, 2022

Tallinn, Estonia

Agenda

9:00 – 9:15 Welcome and tour de table

Address: Park Inn by Radisson Central, Narva road 7C

9:15 – 10:30 **Overview of housing and renovation in Estonia; historical context; legal and ownership situation; challenges with district renovation; financing; cooperation with stakeholders; national renovation alliances**

Raiko Puustusmaa, Housing Expert at the Ministry of Economic Affairs and Communications of Estonia

Andres Jaadla, Chairman of EKYL

10:40 Bus to the study visit

11:00 – 12:00 **Mustamäe District Administration: current developments, challenges and plans for renovation of the district and buildings**

Urmas Kõpp, Deputy District Elder

Oksana Talisainen, Head of Public Relations

12:00 – 13:00 Lunch at the canteen of TalTech

13:00 – 15:00 **Visit to 2 buildings in Mustamäe district, apartment associations and renovation projects in the district, where large-scale renovation models are implemented with renovation grants.**

Anvar Kima, technical consultant



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Apartment Association Sõpruse 246



Before and after

- Deep renovation with a collective investment of apartment owners, 2017
- Total investment 1.388 M euros
- 40% state reconstruction grant from KredEx and a bank loan
- Insulation of the façade, roof insulation, reconstruction of the heating system, reconstruction of the water and sewage system, building a ventilation system with heat recovery, installation of solar panels, reconstruction of balconies

Apartment Association Vilde 70



Before and after

- Deep renovation with a collective investment of apartment owners, 2017
- Total investment 1.425 M euros
- 40% state reconstruction grant from KredEx and a bank loan
- insulation of the facade and the roof, closing of the balconies, closing of the open entryways on ground floor, replacement of the front and back door, replacement of all the windows of the building and installation of the new windows in line with the existing facade (triple pane glazing); full replacement of the heating system with introduction of thermostats and ventilation openings in the external walls; building of a ventilation heat recovery system with heat pumps using the pre-existing exhaust ducts; replacement of elevators, renovation of hallways; Installation of 15 kW photovoltaic power station on the roof; the functioning of all systems can be monitored and controlled via web-browser based system in real time.



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15:00 – 16:00 **Visit to TalTech (Tallinn University of Technology) dormitory building Akadeemia 5A** – the first multi-apartment building in the Baltics renovated with prefabricated panels – solution that may be the future for district scale renovation in Eastern European countries.

Anti Hamburg, PhD

Before and after



Video: <https://www.youtube.com/watch?v=pPvlf9-G290>

16:00 – 17:00 **Discussion and reflections from the participants**

Prõks! Coffee Shop, TalTech campus

17:00 Bus back to the hotel

19:00 Dinner at restaurant Platz <https://www.platz.ee/en/>, address: Roseni 7

Host of the Study Visit:

The Estonian Union of Co-operative Housing Associations (EKYL)

EKYL is a housing federation working across Estonia to support cooperative housing and the renewal of multi-apartment housing stock through the implementation of knowledge-based activities like training, consulting, advisory services, research, and cooperation projects. EKYL is also the [UNECE Centre of Excellence](#), working on sustainable housing at international level.

www.ekyl.ee

Twitter: [@ekyl1996](https://twitter.com/ekyl1996)

LinkedIn: <https://www.linkedin.com/company/ekyl>

Contact:

Anu Sarnet, Head of International Relations and Projects, +372 55 585701, Anu.Sarnet@ekyl.ee

Andres Jaadla, Chairman, Andres.Jaadla@ekyl.ee



Geneva UN Charter
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SUSTAINABLE HOUSING
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Want to know more about housing and renovation in Estonia?

1. Long-term strategy for building renovation in Estonia, July 2020
<https://www.ekyl.ee/wp-content/uploads/Long-term-strategy-for-building-renovation-in-Estonia.pdf>
2. Estonia, KredEx – A Deep Renovation model for Europe,
Blog post of Prof. Jarek Kurnitski, TalTech
<https://decarbonhome.fi/estonia-kredex-a-deep-renovation-model-for-europe/>
3. The circularity of renovation solutions for residential buildings, Conference paper, July 2022
https://www.researchgate.net/publication/362326176_The_circularity_of_renovation_solutions_for_residential_buildings
4. Attia, S., Kurnitski, J., Kosiński, P., Borodinecs, A., Deme Belafi, Z., István, K., Krstić, H., Moldovan, M., Mihailov, N., Evstatiev, B., Banionis, K. Overview and Future Challenges of Nearly Zero-Energy Building (nZEB) Design in Eastern Europe. *Energy and Buildings*, 2022, Vol. 267, Article number 112165. ISSN 0378-7788.
<https://www.sciencedirect.com/science/article/abs/pii/S037877882200336X?via%3Dihub>
5. Realisation of Energy Renovation Targets of Estonian Apartment Buildings, Doctoral thesis, Anti Hamburg, TalTech, 2022
https://digikogu.taltech.ee/en/Item/790db206-2bfe-4ec0-9476-cb1a3dc09400?_ga=2.267159694.1086460058.1665989809-1465894397.1658692811
6. Reconstruction grant 2022-2027 in Estonia
<https://www.kredex.ee/en/kodudkorda>
7. nZEB Renovation with Prefabricated Modular Panels
<https://www.sciencedirect.com/science/article/pii/S1876610217348592>
8. Pikas, E.; Kurnitski, J.; Liias, R.; Thalfeldt, M. (2015). Quantification of economic benefits of renovation of apartment buildings as a basis for cost optimal 2030 energy efficiency strategies.
<https://www.sciencedirect.com/science/article/abs/pii/S037877881400824X>
9. Leetmaa, K., Holvandus, J., Mägi, K., Kährik, A. (2018). Population Shifts and Urban Policies in Housing Estates of Tallinn, Estonia. In: Hess, D., Tammaru, T., van Ham, M. (eds) *Housing Estates in Europe. The Urban Book Series*. Springer, Cham.
https://link.springer.com/chapter/10.1007/978-3-319-92813-5_17
10. Pirrus, J., Leetmaa, K. Public space as a medium for emerging governance networks in post-privatised large housing estates in Tartu and Vilnius. *J Hous and the Built Environ* (2021).
<https://link.springer.com/article/10.1007/s10901-021-09864-7>

