



**CEESEN-BENDER**

**Building intErventions in vulNerable Districts against  
Energy poveRty**

**Estonia's report on building renovation  
technical and economic barriers**

Annex 3 to Deliverable 3.2 – Report on Building Renovation Technical and  
Economic barriers in 5 pilot countries and in CEE

WP3 Tackling the barriers hindering building related interventions in vulnerable districts



**Co-funded by  
the European Union**



**CENTRAL & EASTERN EUROPEAN  
SUSTAINABLE ENERGY NETWORK  
CEESEN-BENDER**

## ESTONIA

### National Report on Building Renovation – Technical and Economic Barriers

#### 1. Summary and Recommendations

Renovation has gained popularity in Estonia, driven by national grant schemes. However, the market remains highly dependent on these subsidies. The doubling of construction costs in recent years and the lack of recent grant calls, as well as the overall irregularity and unpredictability of support schemes (with no clear long-term schedule), have made renovation increasingly difficult.

In urban areas like Tallinn, Tartu, and Pärnu, homeowners can often access loans to complement grants. But in smaller towns and rural areas, low property values prevent access to sufficient financing, making even grant-supported renovation unfeasible. Meanwhile, human capital limitations — from consultants to skilled construction workers — add additional pressure.

Despite progress, the current system struggles to meet demand or address the needs of vulnerable households. Targeted support for energy-poor buildings, clearer timelines for funding, and flexible renovation options would help address existing bottlenecks.

#### Key Recommendations:

1. **Introduce predictable grant cycles and schedules** (e.g. annual calls or calendar-based opening dates) to reduce market overload, improve human resource availability, and help stabilise renovation costs. A clear roadmap for homeowners on how to access grants and navigate the process would further improve transparency.
2. **Support a step-by-step renovation approach**, where clearly defined final outcomes (e.g. based on a design project) are achieved through phased investments supported by grants. Homeowners should also be encouraged to expand renovation budgets where possible, ensuring greater savings over the long term.
3. **Offer paid OSS-type support for vulnerable or energy-poor buildings**, providing consultants who can guide and support residents throughout the entire renovation process. This approach should also be linked to improved communication of successful examples, particularly in economically weaker regions.

#### 2. Overview of the Renovation Landscape

In Estonia, deep renovation is both the most common and the most desired form of renovation. These projects typically include comprehensive upgrades to the building envelope and technical systems. A typical renovation package usually includes renewal of the roof and attic insulation, façade repair and wall insulation, foundation works, replacement of windows and exterior doors, upgrading of heating and electrical systems, and also the installation or renovation of ventilation systems.

In recent years, the scope of eligible activities under national grants has expanded further, for example to include external improvements such as garbage sheds or bicycle storage, and grid-connected solar systems where feasible.

Despite this progress, many buildings still fall short of current energy standards. Renovation has been, and for many is likely to remain, a predominantly reactive activity, triggered by system failures and other urgent problems. This often results in non-comprehensive, poorly planned works and additional uncoordinated costs. Windows and doors are typically replaced every 10–20 years, roofs are renewed mainly when leaks occur, and technical systems such as heating and electrical installations are often upgraded only after breakdowns. While these interventions address immediate needs, they rarely deliver the full benefits of comprehensive renovation.

The average cost of deep renovation is around 600 €/m<sup>2</sup> (expert input 2024). However, the pace of renovation has slowed markedly in recent years. The slowdown reflects several interlinked factors: construction costs have doubled over the past three years [1]; grant calls are irregular and often delayed; consumer prices and labour costs have risen significantly [2][3]; the EURIBOR increased from negative values in 2021 to over 4% by late 2023 [4]; and loan access remains limited in areas with low property values. Between 2020 and 2023, construction costs in Estonia increased by 36% [1], consumer prices rose by 28% [2], and hourly labour costs by 34% [3]. At the same time, the EURIBOR rose from negative values in 2021 to over 4% by late 2023 [4], significantly raising loan costs. These trends have undermined renovation affordability, especially outside major cities.

### **3. Homeowner Motivation in Multi-Apartment Buildings**

The strongest drivers behind renovation decisions were, on the one hand, financial relief through grants and lower monthly costs, and on the other hand, the urgent need to address failing technical systems and poor living conditions. The main motivators for homeowners were:

- Availability of grants,
- Reduction of monthly living costs,
- Repair of failing systems (heating, electrical, water, sewage),
- Structural safety concerns (balconies, roofs, bearing walls),
- Improvement of poor living conditions that no longer correspond to today's standards.

Less emphasised motivators were: greenhouse gas reduction, indoor climate issues, aesthetics, and increasing real estate value. Energy savings were mentioned but often perceived indirectly, since new loan repayments and other post-renovation expenses offset visible reductions in energy bills.

### **4. Barriers to Renovation**

#### **Financial situation**

Renovation financing remains highly dependent on national grant schemes, with subsidies covering 30–50% of costs and higher rates (up to 70–80%) in Ida-Viru County and for prefabricated panel buildings. Despite this support, affordability has worsened

due to rapid increases in construction costs and loan interest rates. Banks offer more favourable conditions for projects reaching high energy classes (C or better), but in smaller towns and rural areas, collateral values are too low to secure sufficient loans. This mismatch forces households to contribute large personal funds, which is unfeasible for many, especially energy-poor families.

Barriers not prioritised: Experts noted that grant conditions themselves were not perceived as the main obstacle. While application procedures can be complex, Estonia's grant system is generally considered clear and transparent. The main challenge lies in the unpredictability of calls, not the conditions. Similarly, innovative financial solutions were not selected as a barrier, since the central problem is the absence of basic loan feasibility in low-value property regions.

### **Market situation**

The Estonian renovation market is destabilised by unpredictable grant calls. Funding rounds open without a clear schedule and are oversubscribed within hours, creating short-lived surges of demand. This "stop-and-go" system fuels price increases, strains labour capacity, and discourages smaller companies from entering the market. Regional disparities are strong: in large cities, demand is stable, while in small municipalities, contractors avoid projects due to low budgets and profitability. The result is a fragmented and unbalanced market.

Barriers not prioritised: General awareness of renovation and availability of good examples were not highlighted as major market-level obstacles. Estonia has benefited from long-term awareness campaigns by KredEx/EIS and EU projects, and successful reference projects are widely available. Therefore, compared to financing difficulties and grant irregularity, these were seen as secondary issues.

### **Technical situation**

Deep renovation is generally well known and widely implemented in Estonia. Typical projects include comprehensive upgrades of both the building envelope and technical systems, and in recent years balanced ventilation with heat recovery has become a standard element of renovation packages. Technical guidelines, project requirements, and grant conditions have reinforced this practice, meaning that ventilation is no longer a weak point of Estonian renovation projects.

The main technical challenge lies in the shortage of specialised designers (e.g. HVAC, electrical, and structural engineers), as well as consultants and experienced renovation contractors. These roles are essential for preparing comprehensive projects, but their availability is limited — especially when many projects start simultaneously after grant calls.

Barriers not prioritised: Although the survey also listed skilled workers at construction sites and supervisors, these were not selected as major bottlenecks in Estonia. Experts explained that once a project is approved and financed, both site labour and supervisory staff can generally be found. The more pressing bottlenecks are in the design and preparation stage, not in execution.

## **Other/social factors**

Awareness of renovation has improved through KredEx/EIS programmes, yet motivations remain reactive and grant-driven. Households perceive that loan repayments offset energy savings, lowering enthusiasm for deep upgrades. Practical issues — replacing failing systems, addressing safety risks, or meeting basic living standards — dominate decision-making, while aesthetics, climate goals, and property value are secondary.

Although Estonia legally defines energy poverty, there are no renovation schemes targeting vulnerable households. This structural gap leaves energy-poor families without the support needed to overcome financial and organisational barriers.

Barriers not prioritised: Experts considered that general awareness is relatively good compared to other CEE countries. Similarly, renovation support systems such as technical consultants are well integrated in the grant schemes and were not seen as bottlenecks. Finally, innovative technological solutions were mentioned but not prioritised — the issue in Estonia is not the lack of technologies, but rather whether households can afford to implement them.

## **5. Energy Poverty Context**

Energy poverty is legally defined in Estonia under the Energy Sector Organisation Act, which relies on the subsistence benefit mechanism of the Social Welfare Act. Within this system, essential household expenses — including heating, gas, and electricity — are taken into account when calculating social benefits. While this legal framework ensures that energy costs are recognised in social support, there are no dedicated renovation schemes or reconstruction measures targeting energy-poor or vulnerable households. As a result, structural problems linked to energy poverty remain unresolved, representing a missed opportunity to connect renovation policies with social protection.

## **6. Background and Methodology**

The findings in this report are based on expert assessments collected through a structured questionnaire in Spring 2024. Responses were analysed to identify the most relevant barriers and motivators, with results validated and summarised by the Tartu Regional Energy Agency (TREA) in November 2024. This national report forms part of Deliverable 3.2 – Report on Building Renovation Technical and Economic Barriers in five pilot countries and in Central and Eastern Europe (CEE), prepared within the CEESEN-BENDER project. The CEE-level report compares findings across all pilot countries, highlighting similarities and differences in renovation practices, barriers, and the policy context.

## References

- [1] Eurostat. (n.d.). Construction producer prices or costs, new residential buildings – annual data. Retrieved February 6, 2025, from [doi.org/10.2908/STS\\_COPI\\_A](https://doi.org/10.2908/STS_COPI_A)
- [2] Eurostat. (n.d.). Hourly labour costs (NACE Rev 2 Sections B to S). Retrieved January 24, 2025, from [doi.org/10.2908/LC\\_LCI\\_LEV](https://doi.org/10.2908/LC_LCI_LEV)
- [3] Eurostat. (n.d.). HICP – annual data (average index and rate of change). Retrieved February 6, 2025, from [doi.org/10.2908/PRC\\_HICP\\_AIND](https://doi.org/10.2908/PRC_HICP_AIND)
- [4] Bank of Finland. (n.d.). Average 12-month EURIBOR rate. Retrieved February 6, 2025, from [suomenpankki.fi/en/statistics/data-and-charts/interest-rates/charts/korot\\_kuviot\\_en/euriborkorot\\_kk\\_chrt\\_en](https://suomenpankki.fi/en/statistics/data-and-charts/interest-rates/charts/korot_kuviot_en/euriborkorot_kk_chrt_en)



**Co-funded by  
the European Union**

*The CEESEN-BENDER project has received funding from the European Union's Programme for the Environment and Climate Action (LIFE 2021-2027) under grant agreement no LIFE 101120994. The information and views set out in this material are those of the author(s) and do not necessarily reflect the official opinion of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.*