

RENOVATION OF MULTIAPARTMENT BUILDINGS IN LATVIA

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The aim and tasks of the research

Objective of the research:

To find out the existing EU support (in the form of a grant) for the renovation of multi-apartment residential buildings, the planning period until 2023, strengths and weaknesses and calculations, drawing conclusions on future trends in state aid for the renovation of multi-apartment residential buildings, funding opportunities, the choice of technologies and materials to be used. (*DME - Energy efficiency of multi-apartment residential buildings*)

Tasks:

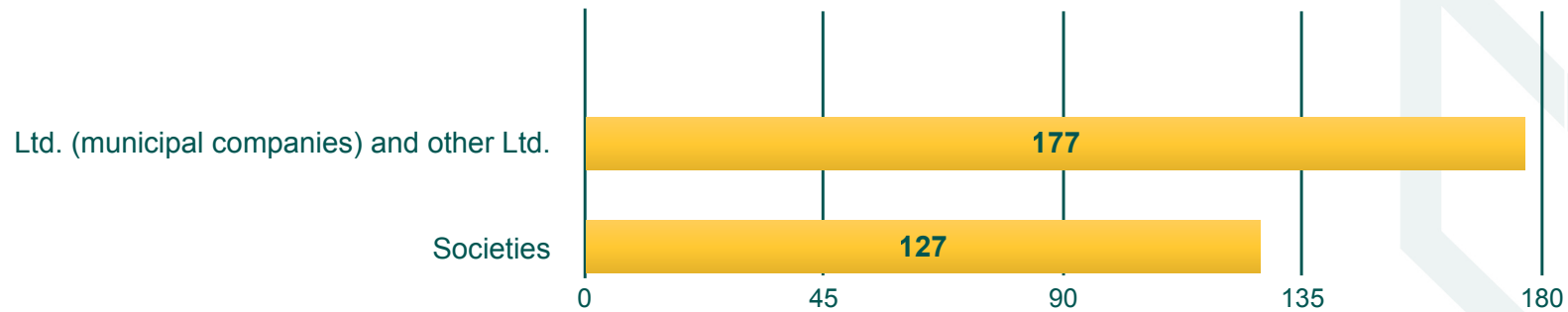
1. **State policy and set goals** related to the improvement of energy efficiency in multi-apartment residential buildings from 2007, when the support program was implemented and grants were awarded by LIAA and until 2023, where the grant is issued by AS ALTUM;
2. To find out the **influence of the involved participants** (apartment owners, commercial banks, house managers, municipalities, state structures) on the processes in the apartment building renovation program (DME);
3. Evaluate the available **financial resources for the renovation** of multi-apartment residential buildings. The optimal means of efficient renovation of multi-apartment residential buildings are studied in order to obtain a balance between the costs of the renovation works performed and the relatively fast repayment of the loan;
4. **Conclusions and proposals** on how the support program could be implemented **in the future**, after 2023.

Comparative data of multi-apartment residential building renovation programs administered by LIAA and Altum

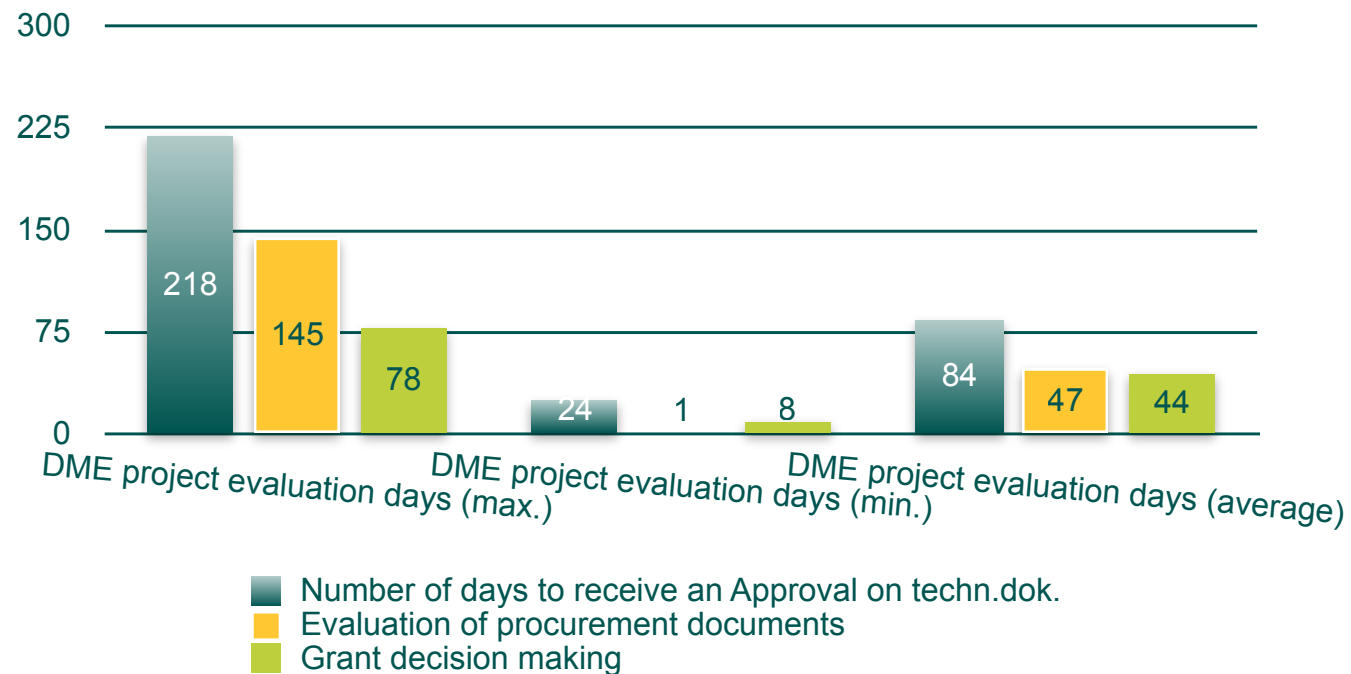
| Description of indicators to be achieved | LIAA program | Altum program |
|---|---|---|
| Available EU Structural Funds funding (EUR) | 63,18 milj. EUR | 156 milj. EUR |
| Achievable indicators (kWh/m ²) | Reduce heat consumption by 20% | Consumption after renovation of the building below 90 (kWh/m ²) |
| Average heat savings (%) | It was found that the average consumption for heat energy savings after the renovation of buildings 45% | Average consumption of heat savings after renovation 41% |
| Eligible expenses | Enclosing structures of the building | Building envelopes; Engineering communications; General construction works within the boundaries of the building; |

Project managers and time consumption

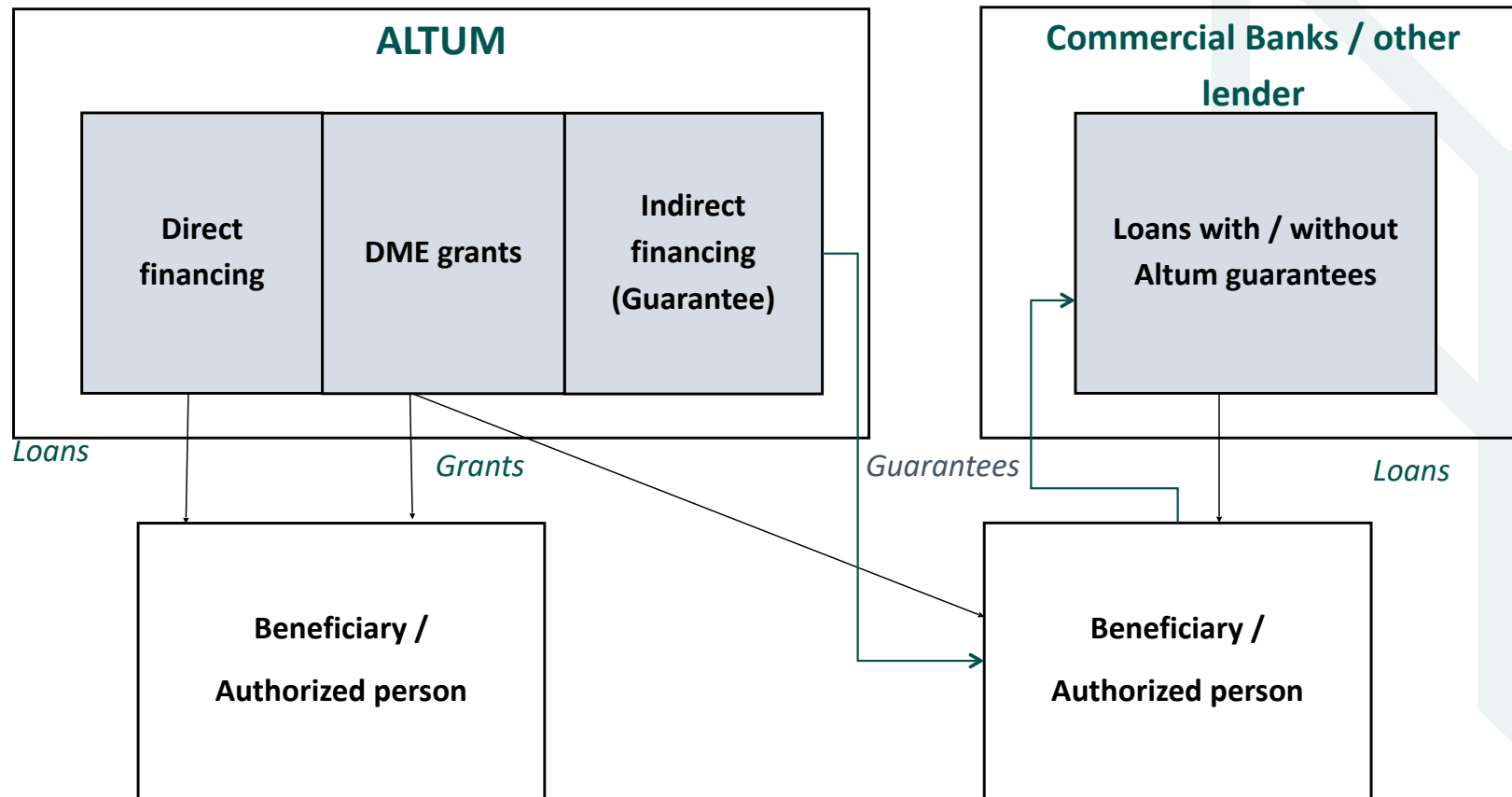
Authorized persons (Project management)



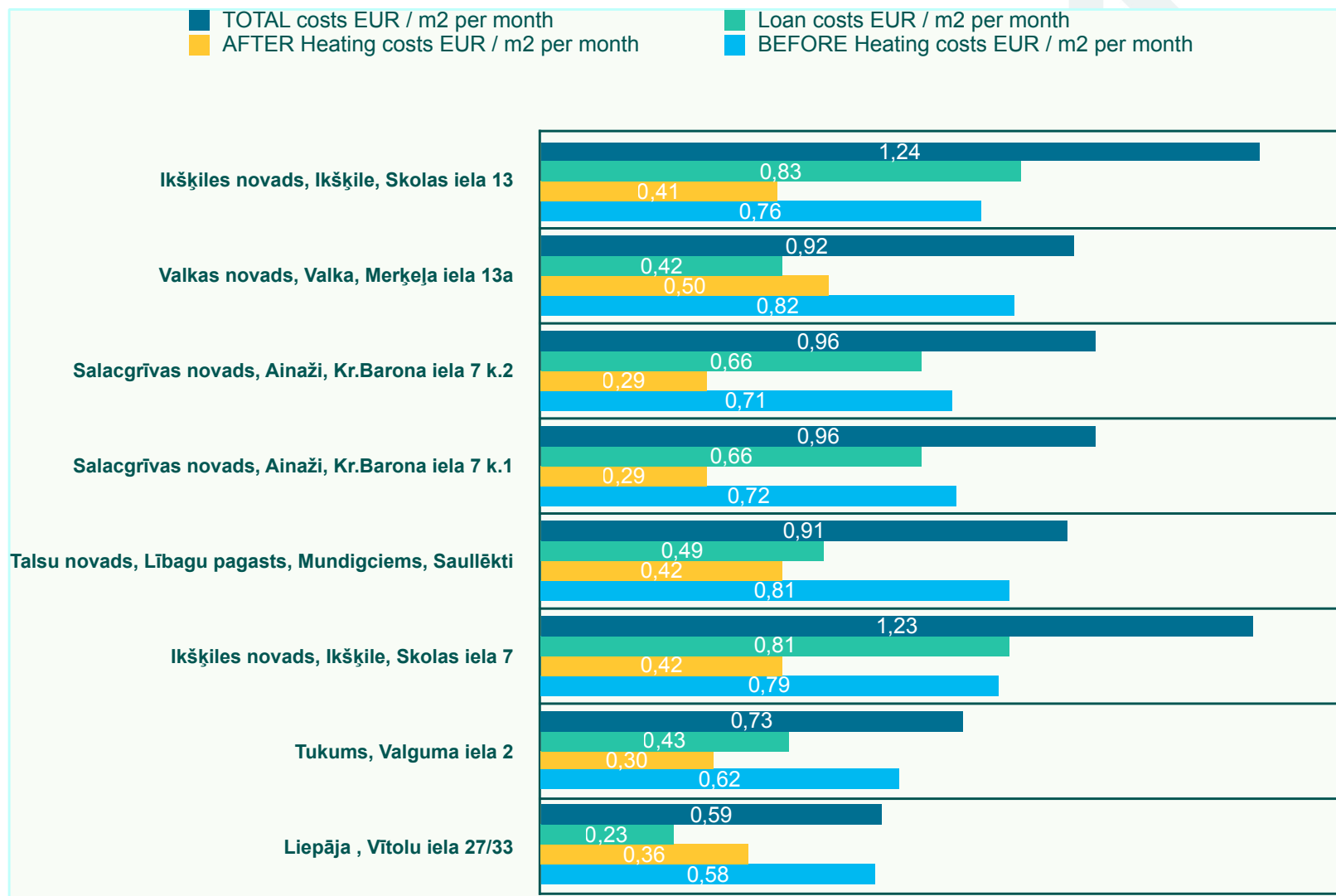
Applications evaluation deadline until the conclusion of the grant agreement



Financial support mechanism for DME projects



Costs after work for heating and loan payments



Conclusions

- In order to **achieve the best possible result**, it is necessary to **develop** the building renovation **project** in as **much detail as possible**, as well as to choose best construction solutions, evaluating economic and technological aspects;
- In case of **complex renovation** of the building, the achieved thermal **energy savings**, if both design and construction conditions are observed during the project implementation, **is not less than 41%** of the previous consumption;
- Most apartment buildings are built according to **standardised designs**, so the design for renovation should be simpler, but with a comparatively finer approach to technical solutions that pay attention to details and **calculate the total investment costs according to the energy saved**, with a payback period of up to 15 years;
- In order for the buildings **to achieve the highest efficiency** indicators after their renovation, it is necessary to perform **complex works, insulation** works with additional renovation of **engineering communications**.
- Analysing a number of documents and what is happening in the **construction market**, where several state **support programs** are being implemented **at the same time**, grants (renovation of state and municipal buildings by improving energy efficiency indicators), it should be concluded that common **national development plans and goals** should be coordinated in order **not to "overheat" the construction market**.

Achievements in the implementation of DME projects

Technologies and equipment of completed works



Achievements in the implementation of DME projects

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Project costs and savings

STATISTICS

1. Average costs for project implementation - **390 000 EUR**;
2. Average costs per building 1 m² - **161 EUR**;
3. Average energy reduction after work - **48%**;
4. About **90 builders** are involved in the implementation of DME projects;





Thank you for your attention!