Lietuvos Respublikos aplinkos ministerija

Energy Efficiency in the Lithuanian Buildings Sector

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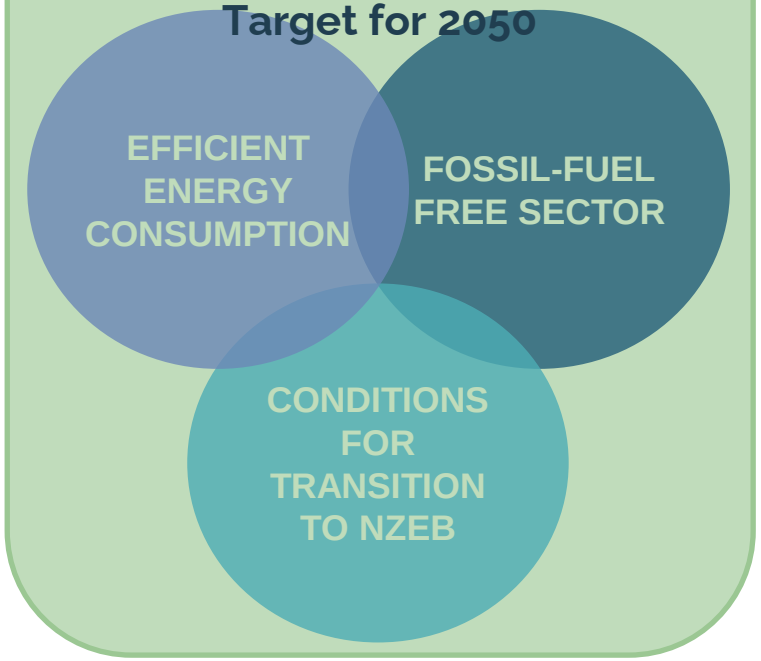
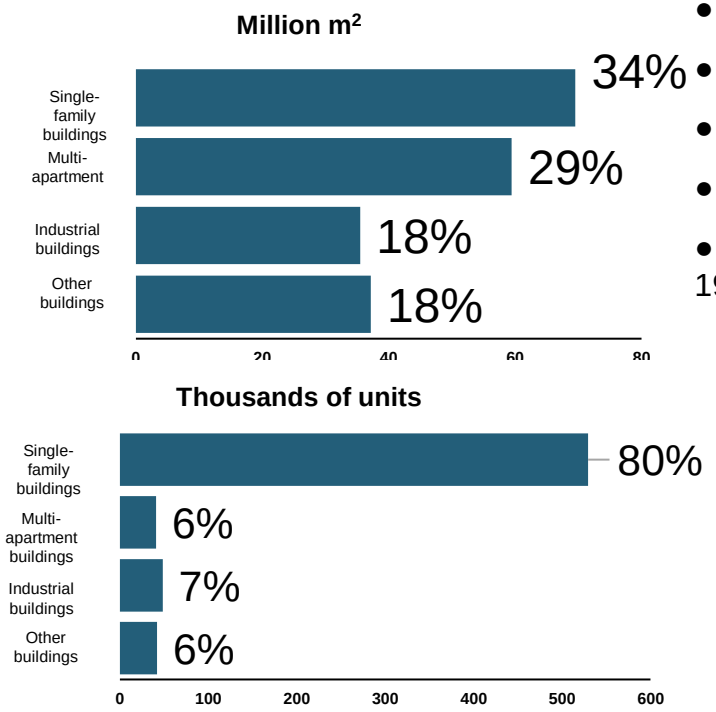
LONG-TERM BUILDING RENOVATION STRATEGY (2021-03-31)

Target for 2050

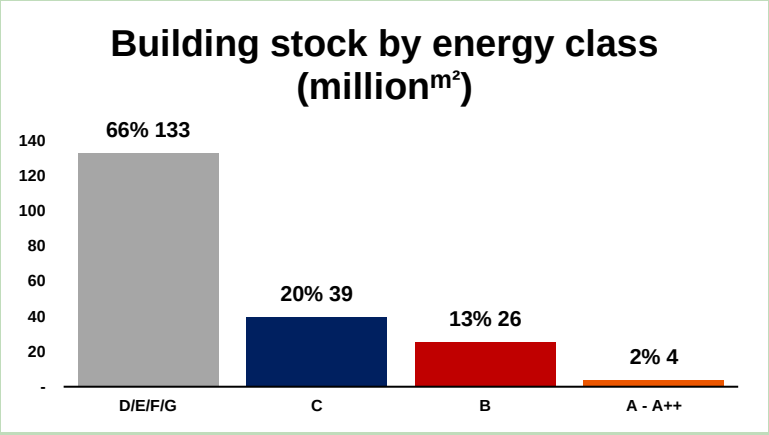


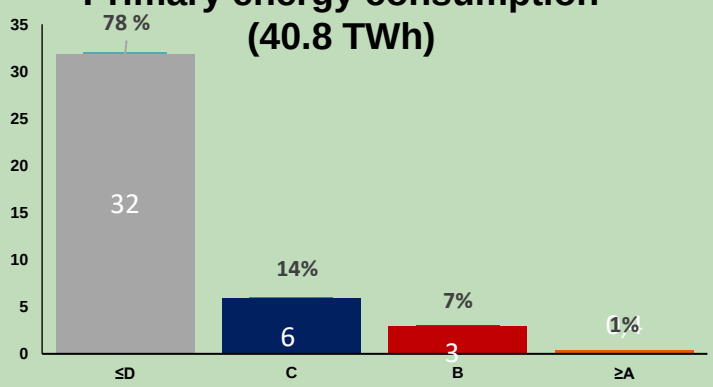
BUILDING STOCK



- 660 000 buildings
- Total area of 201 million m²
- 64 % residential use
- Only 2 % of public ownership
- 85 % of the buildings were built before 1992.

ENERGY CONSUMPTION OF THE BUILDING STOCK





- 66 % are lower than energy performance class C;
- 85 % are lower than energy performance class B;
- A++ class ~ 2312 buildings;
- 40,8 TWh/year primary energy consumption;
- 5.3$_{mt}$CO²/year;
- 78 % of the total primary energy of the building stock is consumed by buildings of energy performance class D and lower.

Goals

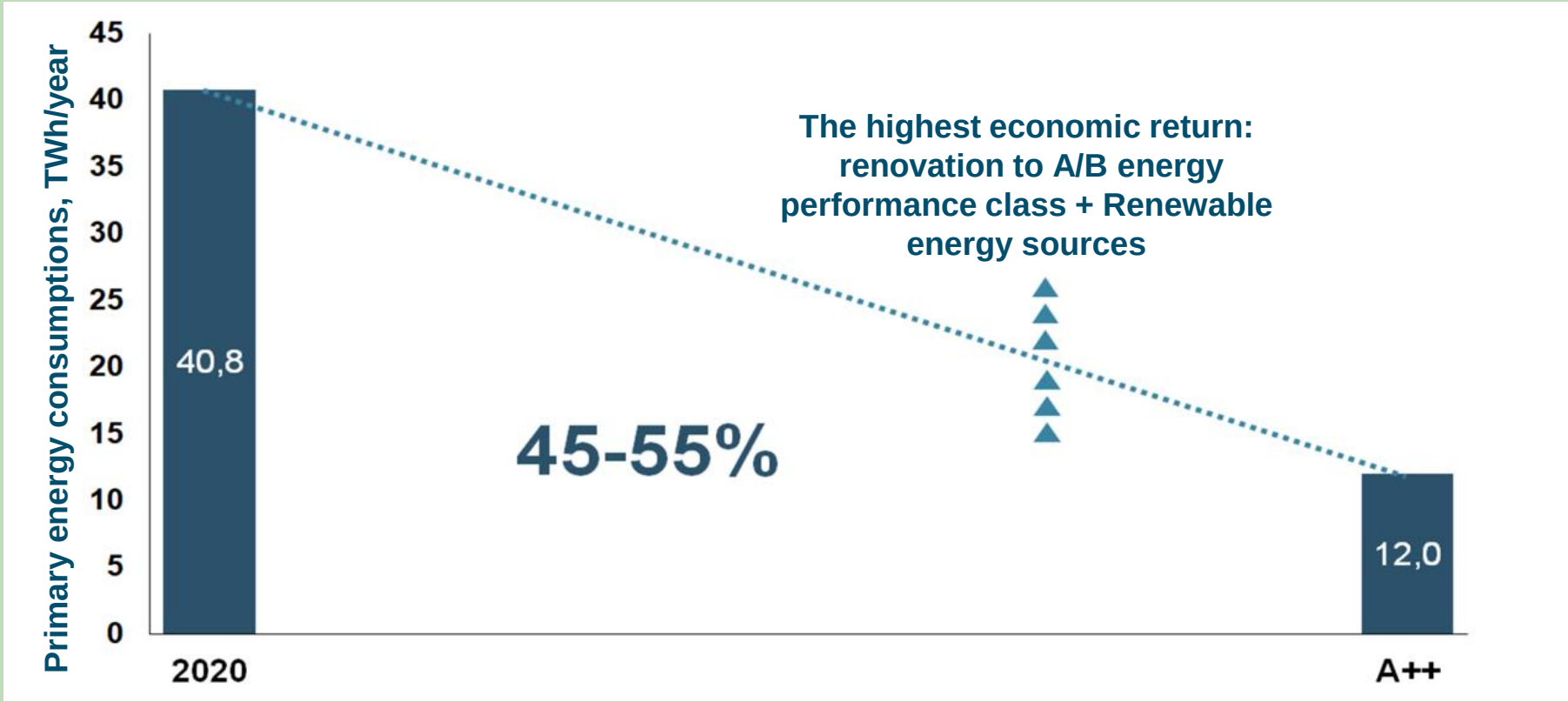
	2020	2050 (with changes in the energy sector)	
Primary energy	40,8 TWh	>-70 %	> 11.9 TWh
Primary energy from fossil fuels	26.4 TWh	>-90 %	> 2.1 TWh
CO_2 emissions	5.3 $mtCO_2$	—100 %	0 $mtCO_2$

Context

- The complex geopolitical situation and high energy prices encourage increasing ambitions in the field of energy efficiency of buildings;
- Proposal for a new version of the Energy Performance of Buildings Directive (EPD). Implementation of the European Green Deal and the Fit for 55 package;
- 8/5/2019 EC recommendations (EU) 2019/786 on building renovation and 2021-2027 EU fund investment program requirements – higher energy efficiency, development of financial mechanisms, mobilization of financial institutions;
- There are limited possibilities of providing support for the renovation (modernization) of multi-apartment buildings with the funds of the state budget

Lithuania’s long-term building renovation strategy

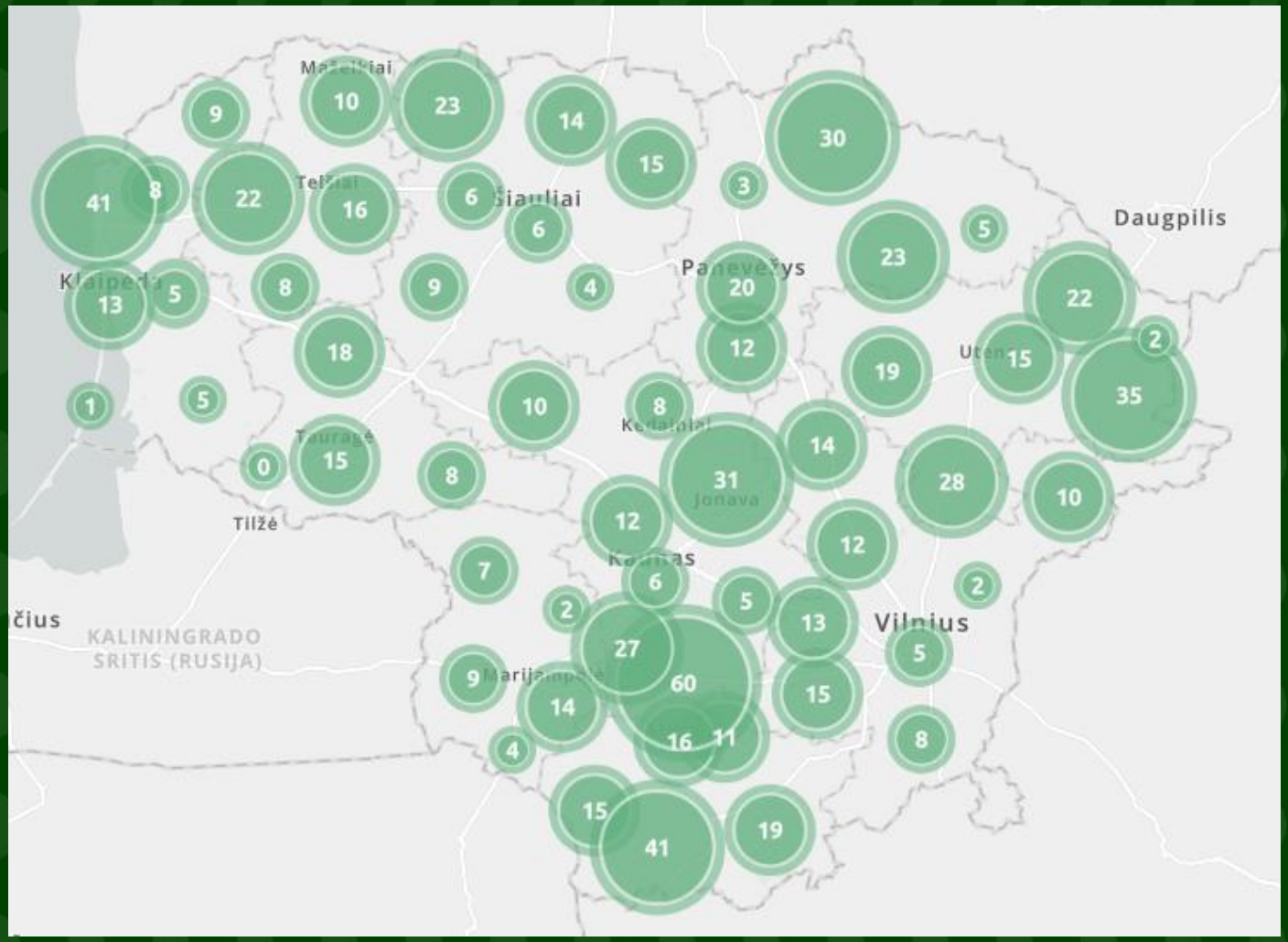
COST-EFFECTIVE RENOVATION



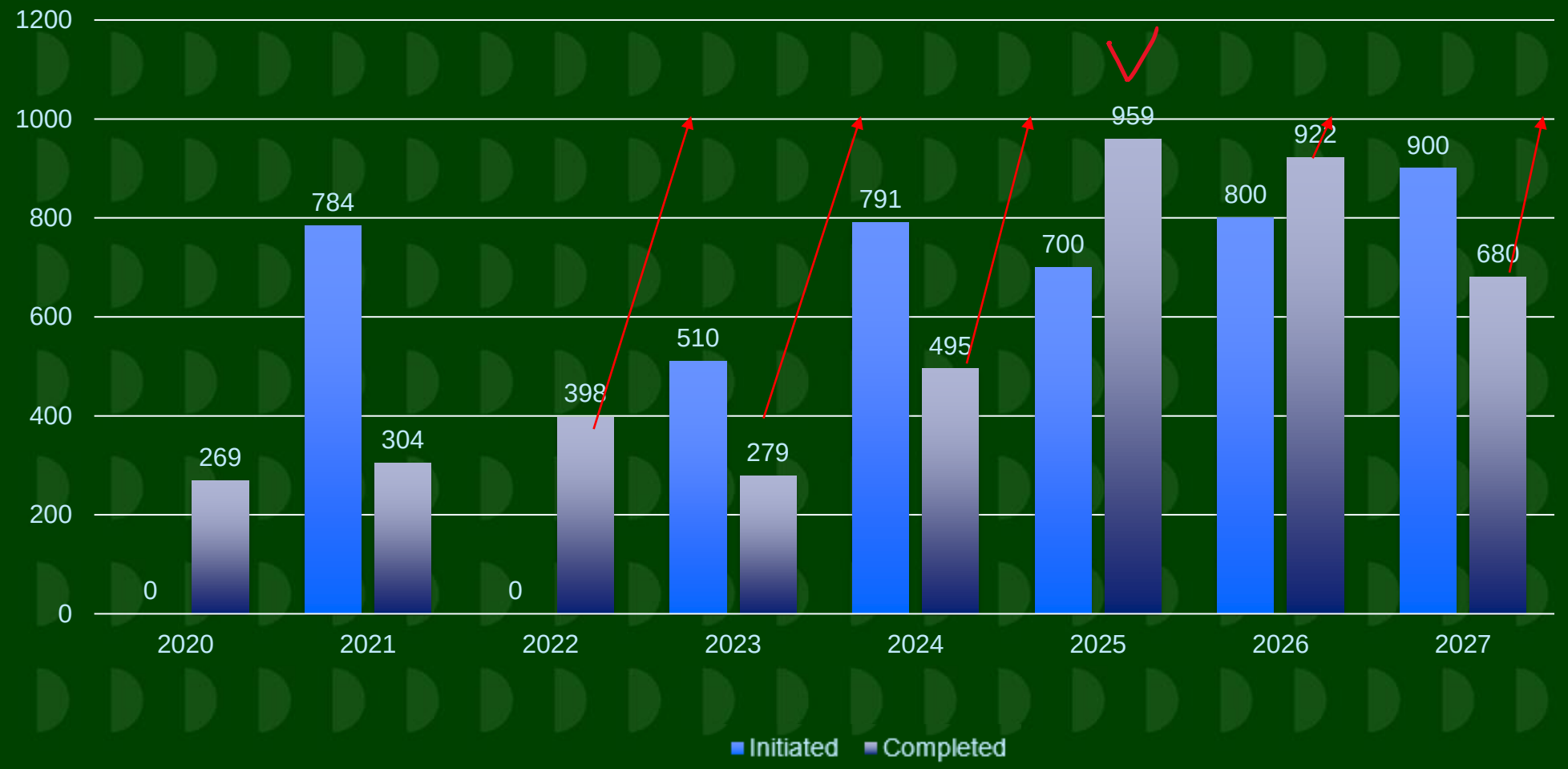
Renovated Multi-apartment Buildings

Leading municipalities

1. **60 %** (43) BIRŠTONO
2. **41 %** (127) PALANGOS MIESTO
3. **41 %** (115) DRUSKININKŲ
4. **35 %** (106) IGNALINOS RAJONO
5. **31 %** (132) JONAVOS RAJONO



Renovated Multi-apartment Buildings and Future Projections



Future of Renovation
Serial Panel (industrial) Renovation

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Serial Panel (industrial) Renovation

Industrialization of Renovation
(Recovery and Resilience Plan)

- Develop production capacity for serial panel (industrial) renovation based on renewable organic materials;
- Implement pilot projects (multi-apartment and public) for the renovation using series panel (industrial) based on renewable organic materials (+BIM, LCA);
- Create Building Data Bank (Information System);
- Support for renovation of multi-apartment buildings using serial panel (industrial) renovation solutions/EPC “B”

New challenges and tasks
More value with the same resources

- Further digitization of the process (APVIS, Building Data Bank, BIM)
- Constant review of the renovation process and solutions to make it shorter and more efficient
- Flat-rate renovation support (depending on the energy performance class achieved)
- Review of the model of Neighborhoods renovation and related change management

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Thank you!

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