



**InnoRenew CoE**

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# Residential renovation in Slovenia: comparison of survey and registry data

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# Research question





## Analysis of Real Estate Register

Preparation of Implementation plan of measures for the development of the wood processing industry until 2030 (target research program project for the Ministry of Economic Development and Technology)



## Our survey on renovation and furnishings of dwellings and climate change attitudes

Survey funded by Slovenian Research Agency with the project „Using questionnaires to measure attitudes and behaviours of building users (Z5-1879 (B))

## Real Estate Registry data (N=884,232)

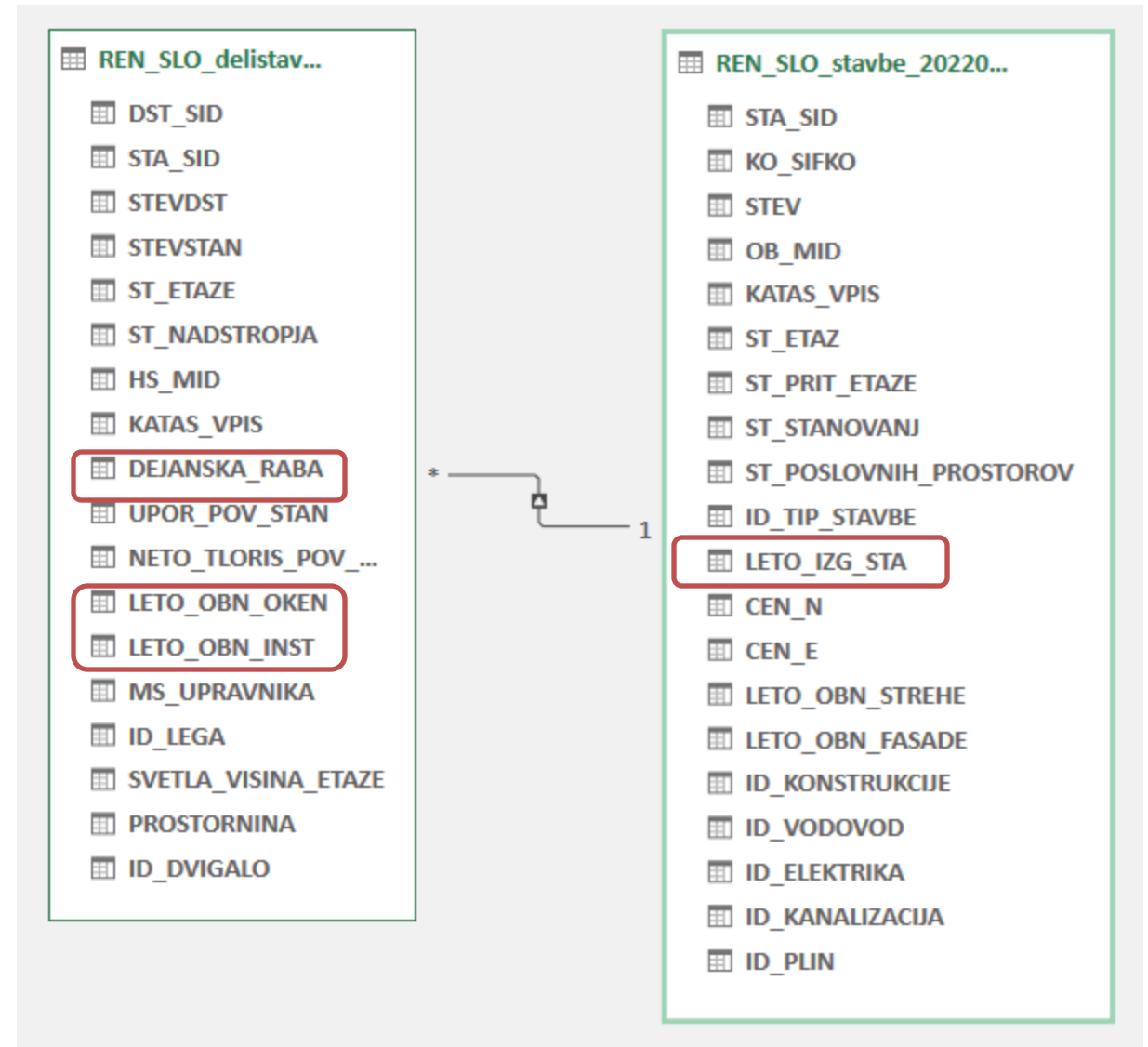
### *Issues with registry data:*

- For missing values it is not clear if the renovation was not done or it was done but it is not known when
- The last real-estate census was done in 2007. After this year the data is based on building permits and is incomplete as minor renovation works do not require a permit.
- 4/5 of dwellings not inhabited.

Year of renovation	Windows %	Installations %
Not available	70,6	83,9
Before 1950	0,2	0,1
1950 – 1959	0,3	0,3
1960 – 1969	0,8	0,7
1970 – 1979	1,8	1,6
1980 – 1989	2,9	2,3
1990 – 1999	5,7	3,6
2000 – 2009	14,8	6,0
2010 – 2019	2,7	1,3
2020 or later	0,2	0,2

# Real Estate Register

- Public multipurpose technical database distributed by the Surveying and Mapping Authority of the Republic of Slovenia
- Contains data that can be used for various purposes (spatial planning, real estate valuation, etc.)
- In this analysis 2 tables were used: Buildings and Parts of buildings (N=884,232)





# Our survey

## Questionnaire



- Topics: Dwelling characteristics, Satisfaction, Renovation, Furniture, Relocation, Climate change (60 items)
- Question sources: Mandič et al. 2005, EU-SILC 023, Smrke et al. 2015, Rioux & Werner 2011, Abreu et al. 2020, Renda et al. 2014, etc.
- Survey tool: [OneClickSurvey \(1KA\)](#)
- Pre-tested on over 50 participants

## Sampling



- Quota sample based on [JazVem online marketing panel](#) (Valicon Ltd)
- Data collected from 23. 8. to 1. 9. 2023
- 3765 panellists invited to participate
- **1009 fully completed surveys (27.3%)**
- Average response time: 16-17 minutes
- Data weighted by gender, age, and education

## Survey data weighted by gender, age, education and region (n=997)

Unit of analysis: respondent	% Never since it was built	% Partially renovated	% Completely replaced	% Don't know
Installations (electrical/plumbing)	31.9	39.9	22.0	6.2
Windows	27.9	15.9	52.8	3.4

## Survey data weighted by gender, age, education, region and HOUSEHOLD SIZE (n=438)

Unit of analysis: dwelling	% Never since it was built	% Partially renovated	% Completely replaced	% Don't know
Installations (electrical/plumbing)	29.9	39.1	23.8	7.2
Windows	27.6	15.1	53.4	3.9

# Comparison of results

- Our survey indicates that 53 % of dwellings had their windows completely renovated and an additional 15 % had them partially renovated but registry data only has data about 30 %.
- Almost 24 % of the dwellings had their installations completely renovated and 39 % partially renovated according to our survey, while only 16 % had according to the real estate registry





# Future analysis – work in progress

- Refinement of weighting procedures
- Control by apartment size, building type and age
- Renovation of roofs and facades
- Other topics that we covered in questionnaire: Materials used, Satisfaction with dwelling, Knowledge questions, Climate change attitudes.





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# Thank you for your attention. Any questions?