

## Learning event

# HOW TO ACCELERATE ENERGY EFFICIENCY INVESTMENTS IN THE MULTIFAMILY HOUSING SECTOR in Poland and in Germany.

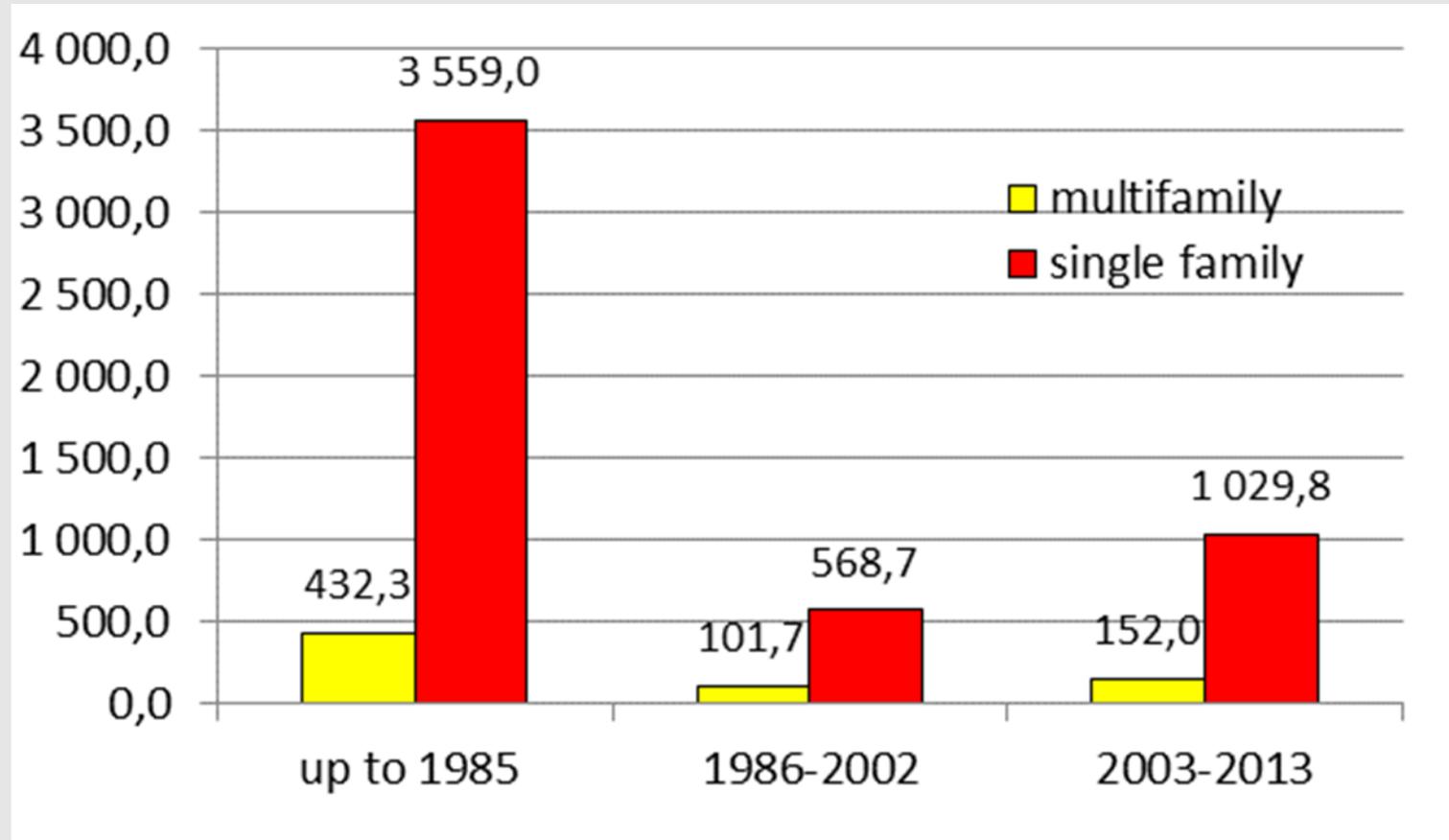
16.03.2023

Andrzej Rajkiewicz



# Setting the scene – context and status quo Poland

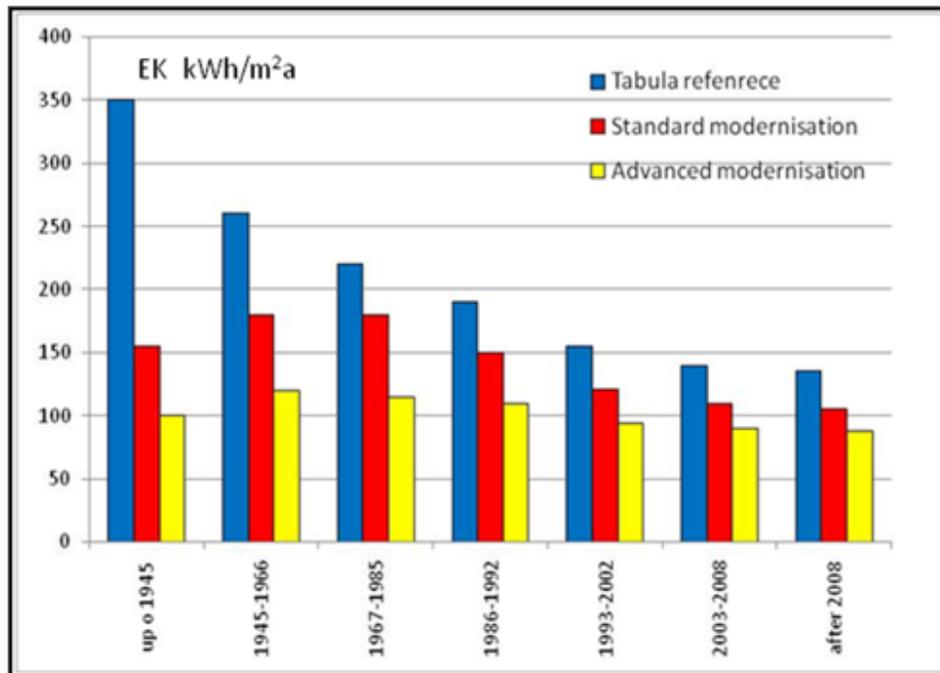
## Housing stock in Poland by age and type



**HOAs (WG) number: approximately 200 000 = 30%**

# Housing stock in Poland by energy performance

Heat demand reduction potential in multifamily houses

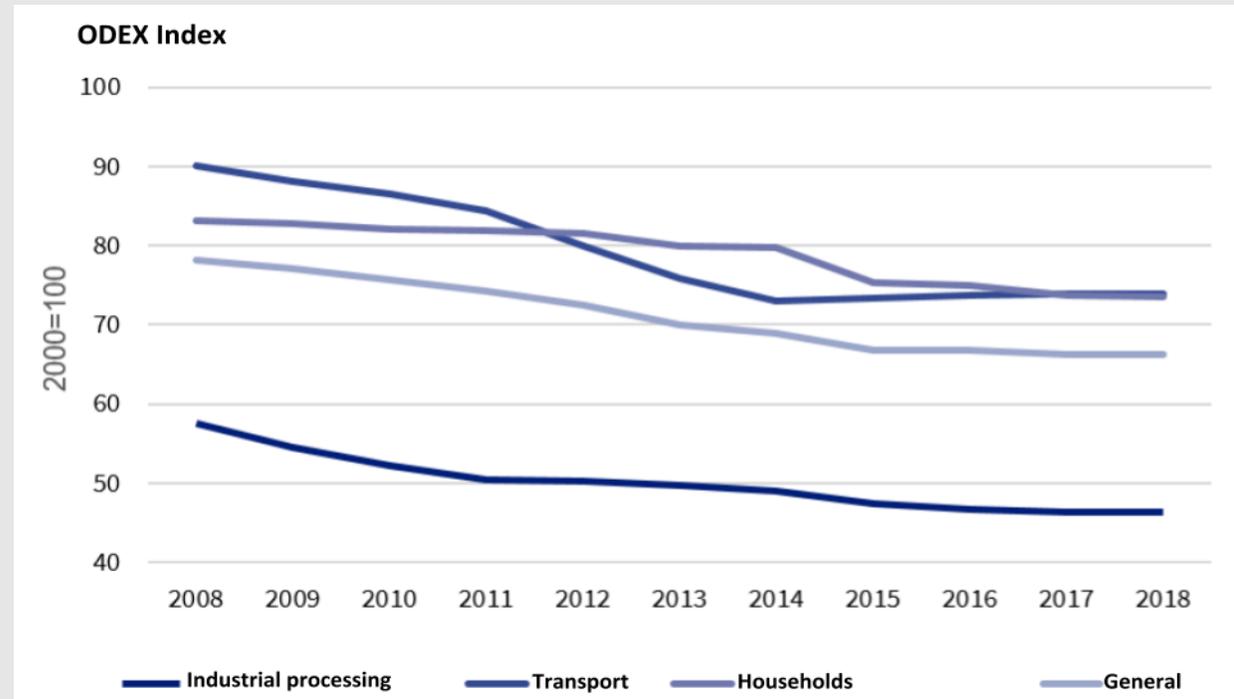


construction period	reduction potential MFH	
	standard modernisation	advanced modernisation
up to 1945	57,8%	71,9%
1945-1966	52,7%	64,9%
1967-1985	51,6%	64,4%
1986-1992	36,5%	53,8%
1993-2002	26,3%	46,9%
2003-2008	21,4%	39,3%
after 2008	21,4%	39,3%

## Energy efficiency in Poland in general

Compared to 2008:

- energy intensity of GDP in 2018 decreased by 23.4% (primary) and 18.4% (final),
- energy consumption in households per m<sup>2</sup> showed a downward trend, after taking into account the climatic correction, consumption per m<sup>2</sup> decreased by 1.6% / year thanks effective support schemes

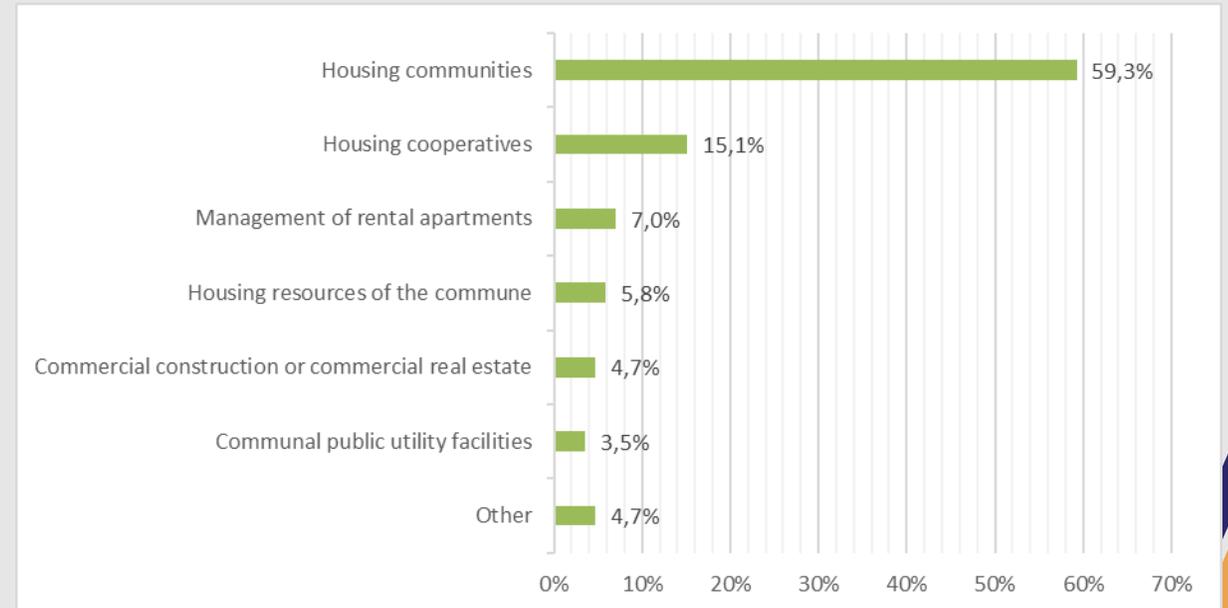


# Main challenges of property managers related to renovation of HOA buildings

Survey among property managers in Poland done 2020 within [CLI-MA](#) project:

- 80% of property managers believe that they have participated in the implementation of activities increasing the energy efficiency of buildings at least once (26% of managers declare that they do it regularly, 45% that they have implemented such an action several times, 9% declare that they did it only once).
- 89% of property managers declare that in the future they will implement measures to increase the energy efficiency of the buildings they manage

Survey participants by type of manager buildings



# Main challenges of property managers related to renovation of HOA buildings

Necessary knowledge from various areas, according to managers, in order to effectively implement solutions dedicated to the energy efficiency of buildings, is:

- **Technical knowledge**: energy-saving materials, building physics, energy-saving building structures, energy-saving engineering technologies in construction
- **Financial and economic knowledge**: economic evaluation of projects, financial support instruments, investing
- **Legal knowledge**: building management regulations, contracts for the supply of services, contracts for construction and renovation works

Solving legal problems in the field of improving the energy efficiency of buildings and the selection of optimal technical solutions for energy efficiency are the areas of competence that require strengthening to the greatest extent.

According to the managers, skills in various areas necessary to effectively implement solutions dedicated to the energy efficiency of buildings are:

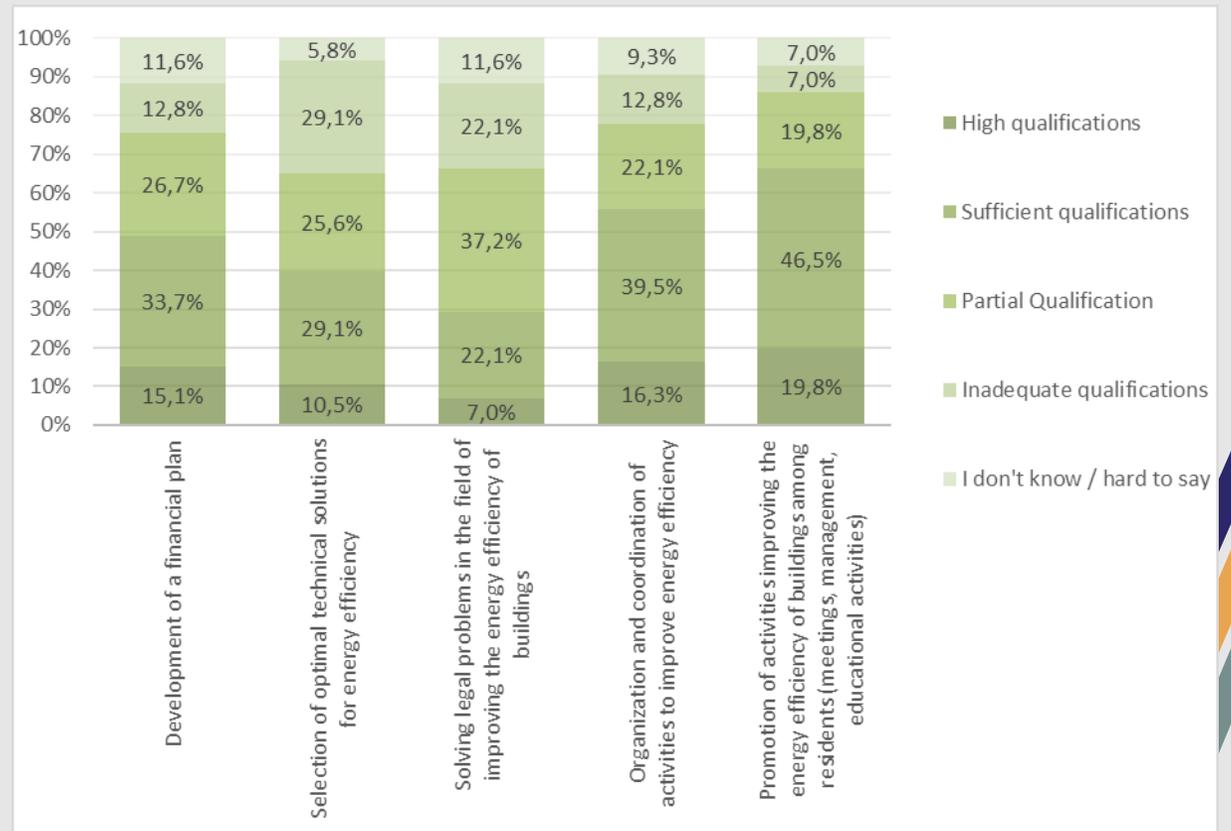
- Management and organizational: in order from the most important to the less important - planning activities to improve energy efficiency and the use of renewable energy sources, project management, risk management
- Communication: the most important are two - consultation and conducting discussions and meetings with members of HOAs

# Main challenges of property managers related to renovation of HOA buildings

## Barriers related to the implementation of solutions dedicated to the energy efficiency of buildings

- **Awareness of the necessity of such actions** - only 60% of managers are of the opinion that such actions should be obligatory
- **Insufficient financial support** for the modernization of multi-family buildings and unclear state policy regarding the efficient use of fuels and energy in the economy - the two most important barriers to the implementation of the European Green Deal
- **Uncertainty about the beliefs of building residents** about the economic benefits resulting from improving the energy efficiency of the buildings in which they live, with high awareness of the managers at the same time

Q.3. Please assess your competence / qualifications to implement the following measures to improve the energy efficiency of buildings



# Financing EE investments in HOA

## Cost structure of the dwelling's bill – 44 m2

- The HOA approves the yearly maintenance plan of the property, **by simple majority** of votes or shares in the common ownership
- The board calculates the levels of charges to be collected from each dwelling owner to cover the yearly maintenance cost.

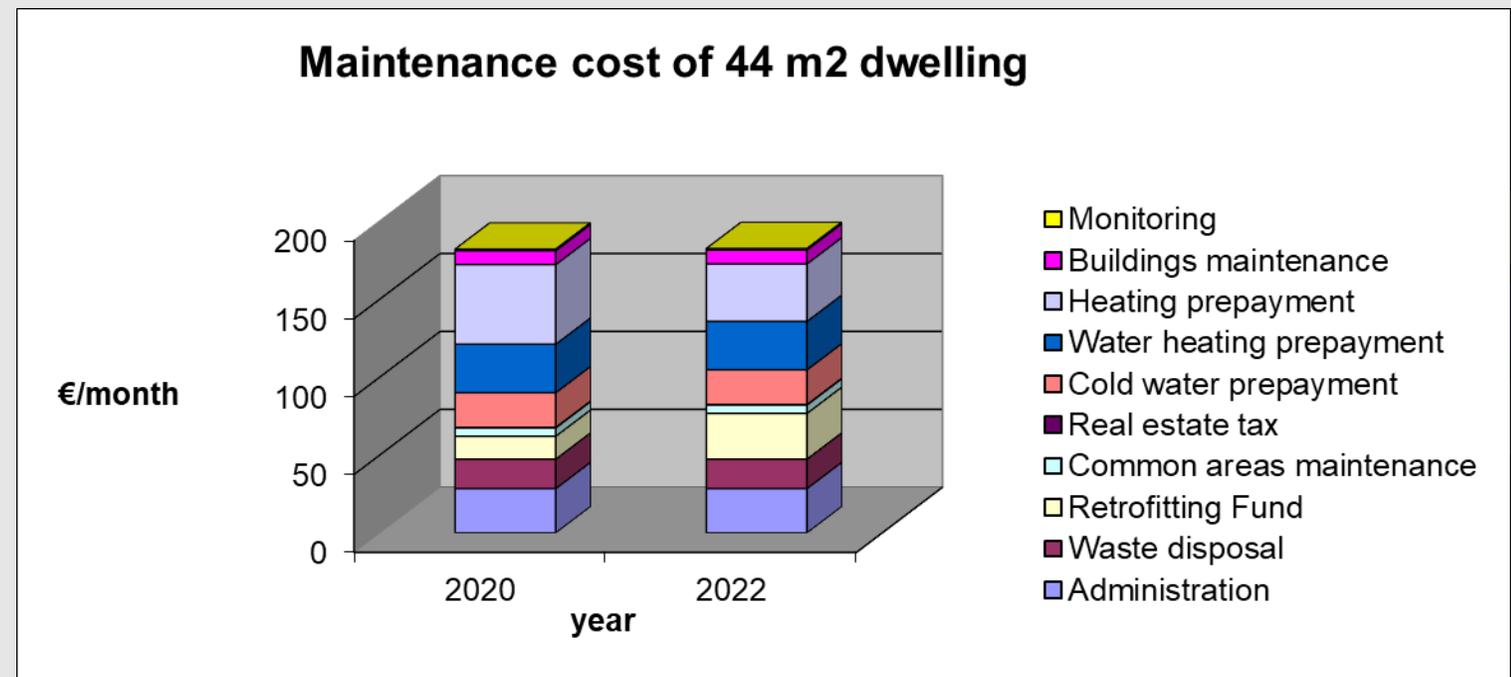
Kind of charge	2020	2022
Administration	28	28
Waste disposal	19	19
<b>Retrofitting Fund</b>	<b>15</b>	<b>29</b>
Common areas maintenance	5	5
Real estate tax	0	0
Cold water prepayment	22	22
Water heating prepayment	31	31
<b>Heating prepayment</b>	<b>51</b>	<b>37</b>
Buildings maintenance	9	9
Monitoring	1	1
<b>Sum €</b>	<b>182</b>	<b>182</b>
<b>€/m2</b>	<b>4,14</b>	<b>4,15</b>
<b>Heating cost %</b>	<b>28</b>	<b>20</b>
<b>Retrofitting Fund %</b>	<b>8</b>	<b>16</b>

# Financing of EE principle

## Financing: bank loans, bonus, financial control

- **Visit to the bank**, negotiations concerning the loan period and level of monthly obligatory payments to the refurbishment fund (the account through which all the refurbishment money flows);
- **Making the decision** by majority of votes of owners of apartments (one owner has one vote) or shares in common ownership (in percents represented) to take the credit; and deciding on repayment schedule of the credit and on the level of monthly obligatory payments to the refurbishment fund by each apartment owner;
- **Submission of the credit application** with supporting documents (decisions, proxy to the servicing bank to collect the monthly loan installments from the refurbishment fund) to the bank.

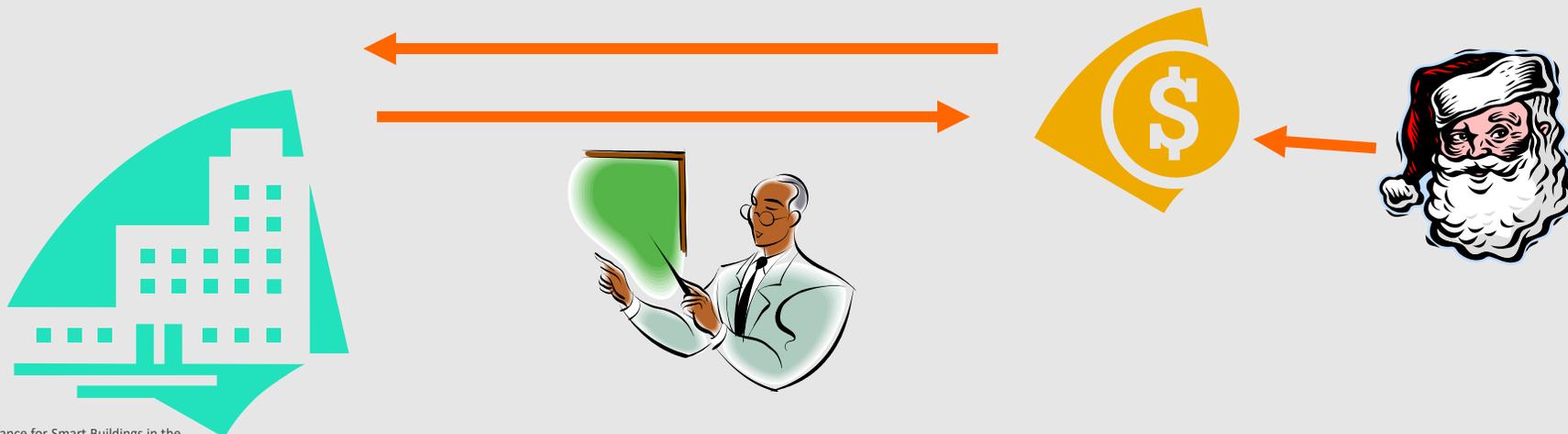
The total maintenance cost before undertaking the measures=total cost after



# Structure of loan for EE with the state support

## *Thermal refurbishment Fund (1998-2008)*

- the program provided a 25% subsidy to the loan extended for owners of buildings (home-owners associations, co-operatives, private ones, public – municipally owned, special social purposes with not limited ownership) for up to 80% of total cost of thermal refurbishment measures
- the precondition was to achieve **at least 25%** energy savings through measures to be financed, confirmed by the energy audit



## Adjustment and improvement of the scheme

### *Thermal refurbishment and renovation Fund (2008-2022)*

- the program provided a 16% subsidy of the cost to the loan extended for owners of buildings (condominiums, co-operatives, private ones, public – municipally owned, special social purposes with not limited ownership) for up to 100% of total cost of thermal refurbishment measures
- the precondition is to achieve energy savings through measures to be financed, at least 25% confirmed by the energy audit,
- in the case of renovation of buildings constructed before 1961 the subsidy accounts to 15% of total renovation cost, by minimum of 10% of energy savings, confirmed by renovation audit, renovation measures of common spaces are also eligible

# Adjustment and improvement of the scheme

## *Thermal refurbishment and renovation Fund (2023-)*

### *1. Financing by subsidized loan*

- the program provides the **thermomodernisation subsidy** in amount of 26 % of EE cost **to the capital of the loan** extended for owners of buildings (HOA, co-operatives, private ones, public – municipally owned, special social purposes with not limited ownership), which covers minimum 50% of the cost and higher than the subsidy amount
- the precondition for receiving the subsidy is to achieve energy savings through measures to be financed, at least 25% confirmed by the **energy audit**,
- in the case of renovation of buildings constructed 40 years before submitting the application the **renovation subsidy** accounts to 16% of total renovation cost, by minimum 10% of energy savings, confirmed by **renovation audit**, renovation measures of common spaces are also eligible



ROUND BALTIC

## Adjustment and improvement of the scheme

### *Thermal refurbishment and renovation Fund (2023-)*

- the **thermomodernisation subsidy** can be increased by 10% in the cases:
  - when the building achieves after thermomodernisation the Ep coefficient not higher than required for new buildings, or
  - when the walls and technical equipment fulfil technical requirements valid for new buildings
- the thermomodernisation subsidy can amount to 31% when together with thermomodernisation the Renewable Energy Sources are applied (PV, heat pumps etc.)

**So, the maximum subsidy to the capital of the loan can achieve 41% of total cost**





ROUND BALTIC

## Adjustment and improvement of the scheme

### *Thermal refurbishment and renovation Fund (2023-)*

#### **2. Financing by grants for non-public multifamily buildings**

- the program provides a grant without the banking procedure in amount of 50 % of total cost of installation of Renewable Energy Sources in the multifamily building to cover it's common energy demand (without dwellings)
- foreseen is making eligible RES installations producing energy extending the energy demand of the building, using maximum technical opportunities (like whole roof area)

#### **3. Financing by grants for public (social) multifamily buildings**

- Subsidy without loan in amount of 50% of total renovation cost
- May be increased to 60% for historical buildings
- May be granted additionally by 30% in case of use of high efficient or RES heat sources or connected to the district heating

# Case study – renovation to nZEB standard with use of subsidized loan

Location: Zwolen  
Construction year: 1989  
Area: 3203 m<sup>2</sup>  
Number of dwellings: 50  
Implemented: 2021

Heat demand (E<sub>p</sub>):  
before: 123,7 kWh/m<sup>2</sup>\*year  
after: 20,8 kWh/m<sup>2</sup>\*year  
Share of RES: 86,2%



Autor: youtube.com/user/EurosEnergy

## Measures:

- Heat insulation of walls to  $U=0,17 \text{ W/m}^2 \cdot \text{K}$
- Ground heat pumps replacing coal fired DH system
- PV power plant 70 kW

Total cost: 700 000€

Unit cost: 230€/m<sup>2</sup>

SPBT: 17 years

## The list of the required documents in banking procedure

1.	Decision on statistical number REGON and VAT tax identification number NIP
2.	Agreement (in form of resolution) of the meeting of HOA members to take and repay the loan.
3.	Operational budget (activity plan) for the current and 2 previous calendar years, including the refurbishment budget.
4.	Resolutions of the owners on: <ul style="list-style-type: none"> <li>• Way of management of the common ownership,</li> <li>• Election of the board of the apartment owners' association (or decision of the court),</li> <li>• The level of the down payment for the management cost of the common ownership,</li> <li>• The level of retrofitting fund due to last 2 years.</li> </ul>
5.	Notary act about establishment of the apartment owners' association
6.	The information of the board of HOA about the estimated market value of the real estate, including value of the common part of the association manager by the association
7.	Copy of the insurance policy of the real estate
8.	Documents related to the bank account of the HOA
9.	Information on receivables and liabilities of co-owners of real estate concerning the maintenance cost and yearly dimension of maintenance charges

## The list of the required documents in banking procedure

10.	Information on receivables and liabilities in relation to external bodies, which are partner of the contract
11.	Copies of the rent contracts concerning rented areas, being part of common ownership
12.	Any proxies given to the board of the HOA, manager or administrator of the real estate, contract with licensed facility manager
13.	Documents related to the scope of the refurbishment works – a technical description according to the bank form
14.	Cash flow related to the financing of the refurbishment works according to the bank form
15.	Opinions of the banks serving the HOA concerning the status of debt, turnover, payments discipline.
16.	Forecast of refurbishment budget
17.	Confirmation of lack of liabilities to Social Security Fund and fiscal authorities
18.	Statement on validity of form and legal documents attached to the loan application

## The list of the required documents in banking procedure

~~COLLATERAL~~



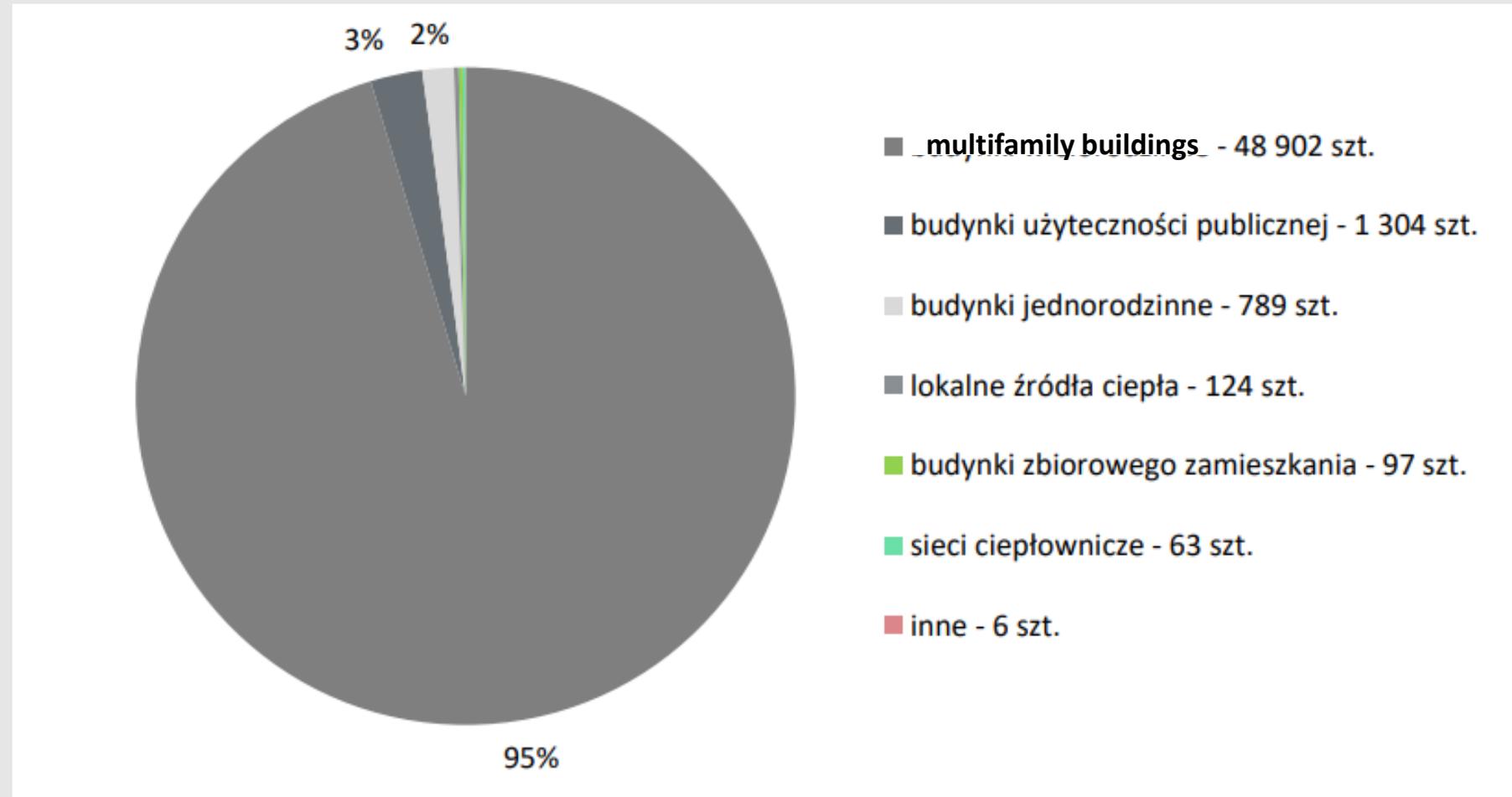
**PROXY TO BANK ACCOUNT  
TO COLLECT 70%  
OF MONTHLY REVENUES  
FROM RETROFITTING CHARGE**

19.	Statement on agreement on personal data processing	
20.	Statement of the board of HOA, that resolutions on taking the loan and related to it, are not subject of legal proceedings	
21.	Statement of the HOA – a proxy to the bank to withhold from the association’s account the commission concerning examination of the loan application	
22.	Documents related to mortgage the loan	
23.	Data concerning the financial standing of the apartment owners’ association, according to the bank form	
24.	Copy of land and mortgage register	
25.	Other documents required by the bank.	
<b>Additional documents necessary for application for the thermorenovation bonus:</b>		
1.	Energy audit	<i>Together with loan applications</i>
2.	Application form for thermorenovation bonus from BGK bank	<i>Together with loan applications</i>
3.	Technical Design of Works identified in the energy audit, being subject of verification	<i>After verification of the energy audit</i>
4.	Contract with selected construction company	<i>After verification of the energy audit</i>

# Poland A Best Practice Example for Subsidies?

## Subsidized loan 1999-2022

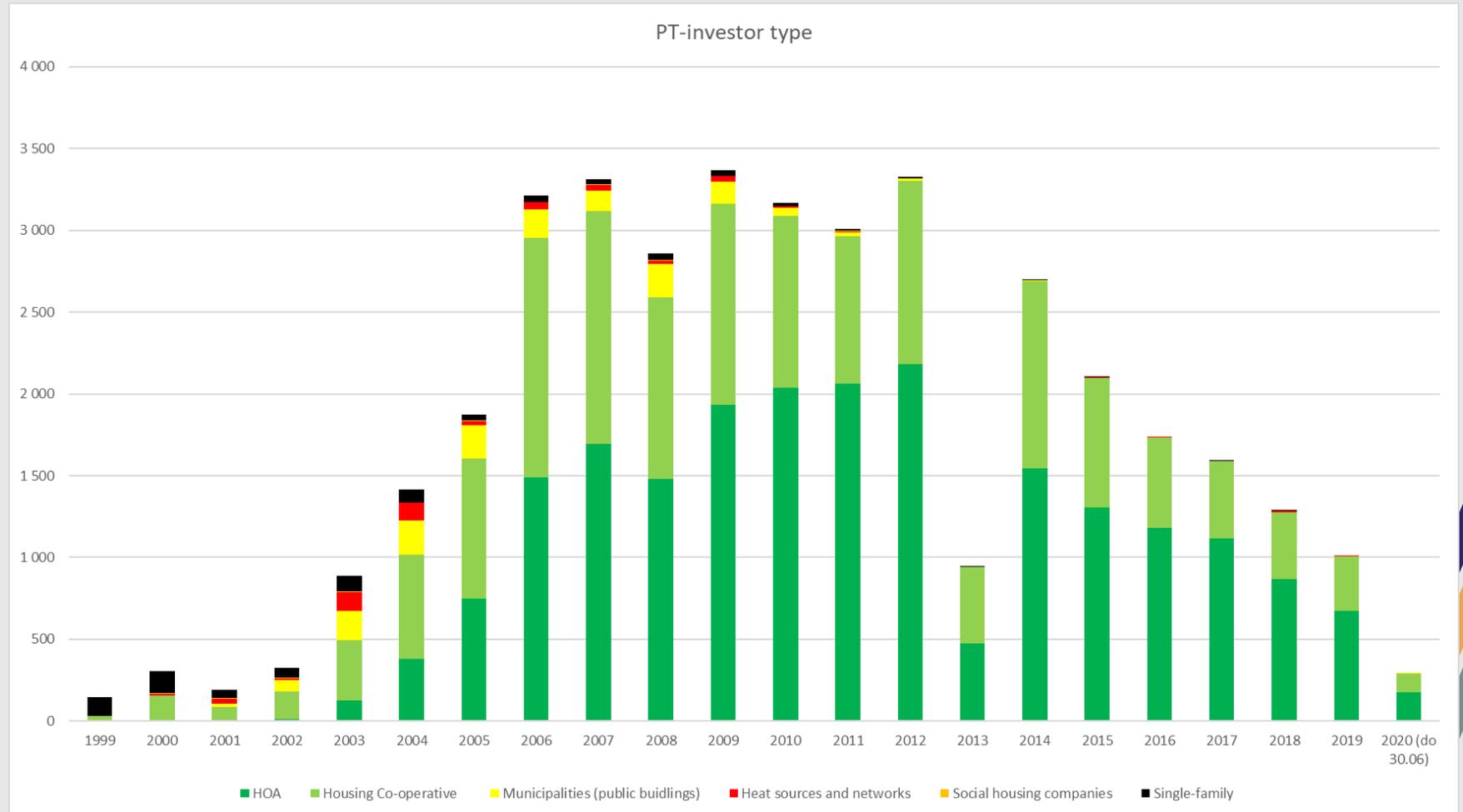
- Permanent
- Affordable
- Less bureaucratic
- Country-wide
- Easy available through 12 commercial banks
- Transparent
- Useful for complex refurbishment
- Standardized procedures and practice – 9 month period from decision to finish implementation of measures



## Subsidized loan 1999-2022

Decreasing demand because of:

- Focusing on large municipalities
- Needs creditworthiness of HOAs through sufficient household income of their members
- Real decrease of support intensity



## Other subsidies – cannibalisation?

- **Support by the white certificate scheme** – tradeable security issued by the Energy Regulatory Authority after implementation of measures described in the Energy efficiency audit which savings exceeded 10 toe
  - one office, long term of approval, the price of certificate driven by market demand, cannot be combined with the thermomodernisation subsidy, **used for less complex measures**
- **Loans with subsidized interest by EU Funds** in several regions in Poland
  - Used by approximately 1000 HOAs **with lower households income** in 7 from 16 regions, limited by EU financing periods, cannot be combined with the thermomodernisation subsidy
- **Reimbursement of 90% of preparation cost** by the EU Elena programm being manager by 4 banks
  - **available together with thermomodernisation subsidy and with the loans with subsidized interest**

# What criteria are needed to make EE investment more feasible for HOA?

The HOA needs:

1. Well skilled housing manager – there are over 20 000 housing managers, certified until 2013, being subject of training provided by their associations and Energy conservation centres
2. Professional energy auditors for preparation of Energy audits – there are over 4000 professionals trained since 1998 and serving yearly 2000-4000 HOAs
3. Sufficiently intensive public support – to undertake the EE measures in a complex manner exceeding the pure renovation activities
4. To be opened for new forms of investment project management – provided by one-stops-shops and Energy Service Companies in order to manage more and more complicated measures from the technical point of view

## Conclusions

Answer for these needs is provided by the new training, called

**„From housing manager to climate manager”**

which has been prepared 2020-2023 within the CLI-MA project supported by



in Poland and in Latvia, which covers 24 hours of intensive training in areas related to preparation, financing and implementation of EE projects in multifamily buildings.

We invite you to take part in kick-off of the training which will take place 24 March 2023.

Registration for participants from Poland is available [here](#)



Thank you for your attention!

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