

ERSS Conference – Special Session 5 Energy Poverty in the European Private Rented Sector: Findings from the ENPOR Project



Chair:

Harriet Thomson (University of Birmingham)

Speakers:

Dimitris Papantonis (TEESlab UPRC)

Manon Burbidge (University of Manchester)

Florin Vondung (Wuppertal Institute)

Christos Tourkolias (CRES)



Understanding the current European policy landscape addressing energy poverty in the Private Rented Sector

Dimitris Papantonis (Technoeconomics of Energy Systems laboratory-
University of Piraeus Research Center, TEESlab-UPRC)

With acknowledgements to Manon Burbidge & Stefan Bouzarovski (University of Manchester)



WHAT DOES THE PRIVATE RENTED SECTOR LOOK LIKE IN EUROPE?

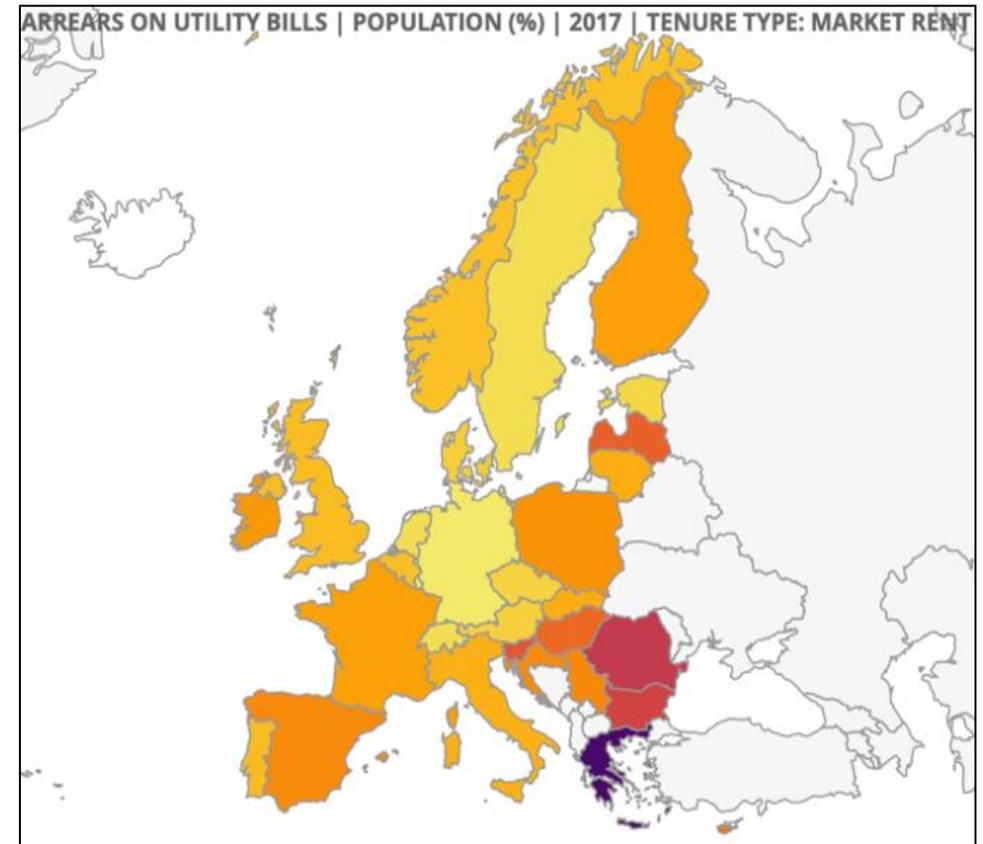
A historical and geographical overview of energy poverty in the European PRS

Fuel/energy poverty and vulnerability are increasing in the European private rented sector. Across the EU, more than 1 in 10 people spend more than 40% of their income on housing costs.

The size of the PRS has increased in many traditionally home-owning societies, with a wider cross-section of society renting for longer.

Quality of PRS housing for low-income renters can be poor. For example, in the UK, the PRS was the worst-performing tenure type in the Decent Homes Standard.

Race, class, ethnicity, age and gender are recognised factors that lead towards increased discrimination and precarity in the PRS.



WHAT IS THE CURRENT POLICY LANDSCAPE IN THE EUROPEAN PRS?

Rationale and Methodology

Analysis and assessment of existing policies in the Private Rented Sector (PRS) across the EU and beyond- provide **indicative insights** regarding their aims, content, and structure.

Review and discussion of the collected measures, based on a number of criteria (implementing authorities, geographical temporal scopes, vulnerable groups, etc.).

Analytical summary of the policies based on well-established energy justice principles.

Conclusions with **recommendations** **identifying gaps** in present knowledge and practice.

Policy Acronym	Policy Full Name	Operating Country	Years Active
VSC	<u>1. Verbund-Stromhilfefonds der Caritas</u>	Austria	2009-present
G-EN	<u>2. Gratis Energiescan</u>	Belgium	2007-present
STEP	<u>3. Energy Performance Incentive Scheme for the Rental Sector (STEP)</u>	Netherlands	2014
SI-Rental	<u>4. Grants for Social Insulation Projects in Rental Buildings</u>	Belgium	2016-present
WU-NZ	<u>5. Warm Up New Zealand</u>	New Zealand	2016-2018

WHAT IS THE CURRENT POLICY LANDSCAPE IN THE EUROPEAN PRS?

Policy Collection and Analysis

35 policies were analysed across a range of scales.

They comprised:

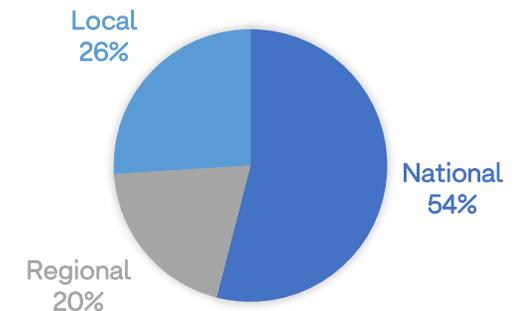
- **Technical** (energy efficiency measures).
- **Financial** (one off payments, subsidies, loans, and advice).
- **Educational** (energy-saving tips).

The majority of the policies were implemented at the **national scale**, a quarter were locally targeted, and one fifth were regional.

The large majority of implementing authorities were **government bodies**, albeit across different jurisdictional scales.

Country	# Policies
Australia	1
Austria	2
Belgium	4
France	4
Ireland	2
Netherlands	2
New Zealand	2
Spain	1
UK and NI	15
USA	2

SPATIAL COVERAGE OF THE POLICIES



WHAT IS THE CURRENT POLICY LANDSCAPE IN THE EUROPEAN PRS?

Policy Collection and Analysis

✓ Types of tenants and landlords included:

Many policies were **not directly targeted** at the PRS. Ten of the policies were engaging only landlords, or landlords and tenants, and **only two** were aimed solely at tenants.

Across all policies, just **under half (46%)** were aimed at **low-income groups**.



✓ Measures involved:

63% of policies included **both technical** and **financial** measures, with policies only tackling either finance or technical representing 17% and 14% of the policies respectively.

The policies classed as **'educational'** focused on informing tenants on energy and energy saving techniques, rather than implementing a particular technical or financial measure.



WHAT IS THE CURRENT POLICY LANDSCAPE IN THE EUROPEAN PRS?

Policy Collection and Analysis

✓ Forms of public participation:

Many of the programmes were **largely top-down** policies and measures, with **little stated public participation or involvement**, particularly in the delivery stages of the projects.

✓ Recruitment- Delivery- Evaluation mechanisms

A key recruitment mentioned by several policies was the referral of vulnerable consumers **via local councils, social welfare organisations, charities, and citizens advice groups**.

Many of the implementing authorities utilise registered **local providers and contractors** to **carry out** the works.

Many of the programmes **did not stipulate** an evaluation mechanism. Those which did report **a form of evaluation** did not provide large amounts of data or information on this aspect of their programmes or policies.



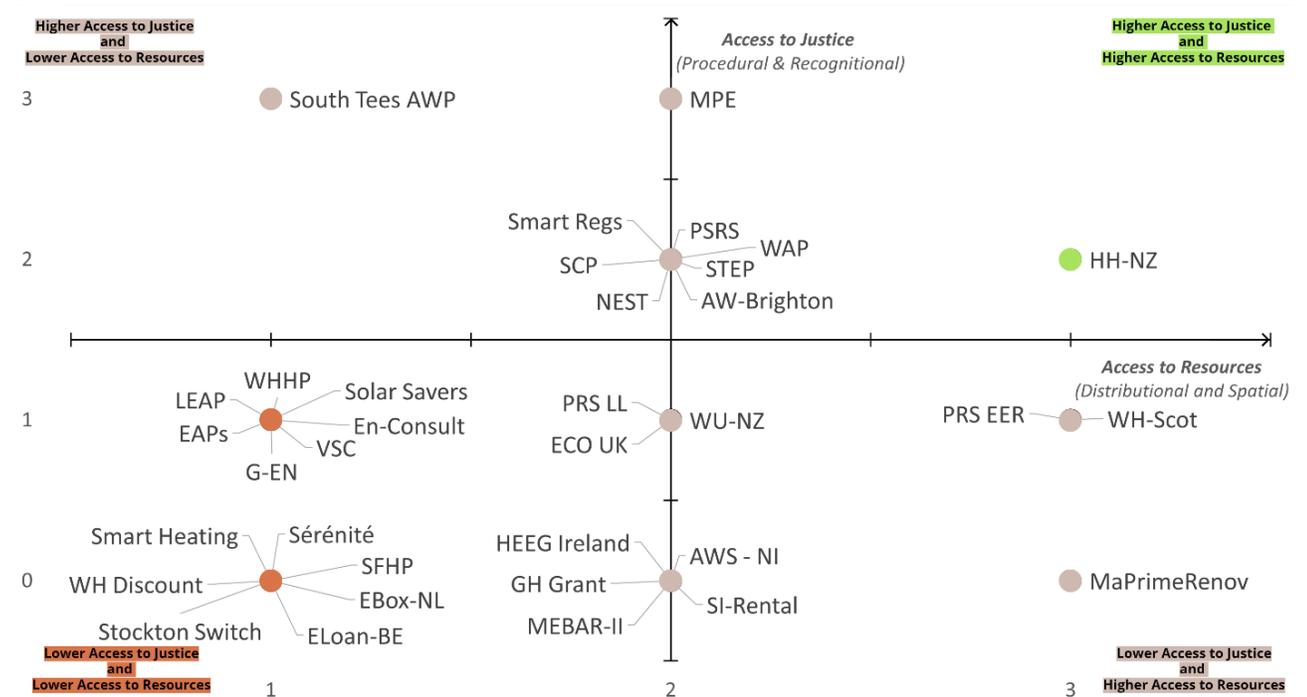
WHAT IS THE CURRENT POLICY LANDSCAPE IN THE EUROPEAN PRS?

Analysis of Policies Along Energy Justice Axes

The analysis was undertaken along **four axes** based on the **basic tenets of energy justice** as it relates to energy poverty.

A policy grading system was developed, with categories based on whether the policy addressed a particular dimension of social justice:

- Procedural
- Recognitional
- Distributional
- Spatial



WHAT IS THE CURRENT POLICY LANDSCAPE IN THE EUROPEAN PRS?

Conclusions

- ✓ Current policies and measures are **inadequate** to **overcome issues of energy poverty** in the **PRS**.
- ✓ **Very few** policies **addressed** or **considered** the **tenant-landlord dilemma**, or even brought together **tenants and landlords** to discuss and address **both of these groups' needs**.
- ✓ **Difficulties** with **access to funding and information** remains an issue for both tenants and landlords.
- ✓ **Future efforts** aimed at identifying any **PRS-directed elements** within relevant policy interventions and programmes will need to be based on involving:
 - ❖ a **wide range** of stakeholders,
 - ❖ extensive and comprehensive **data collection**, and
 - ❖ countries with a **less established tradition** of assisting private sector tenants and landlords.



Structural Factors Impacting Energy Efficiency Policy Implementation in the Private Rented Sector

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*With acknowledgements to Manon Burbidge & Stefan Bouzarovski (University of Manchester)
Dimitra Tzani, Iassilis Stavrakas & Alexandros Flamos (UPRC TEESlab)*



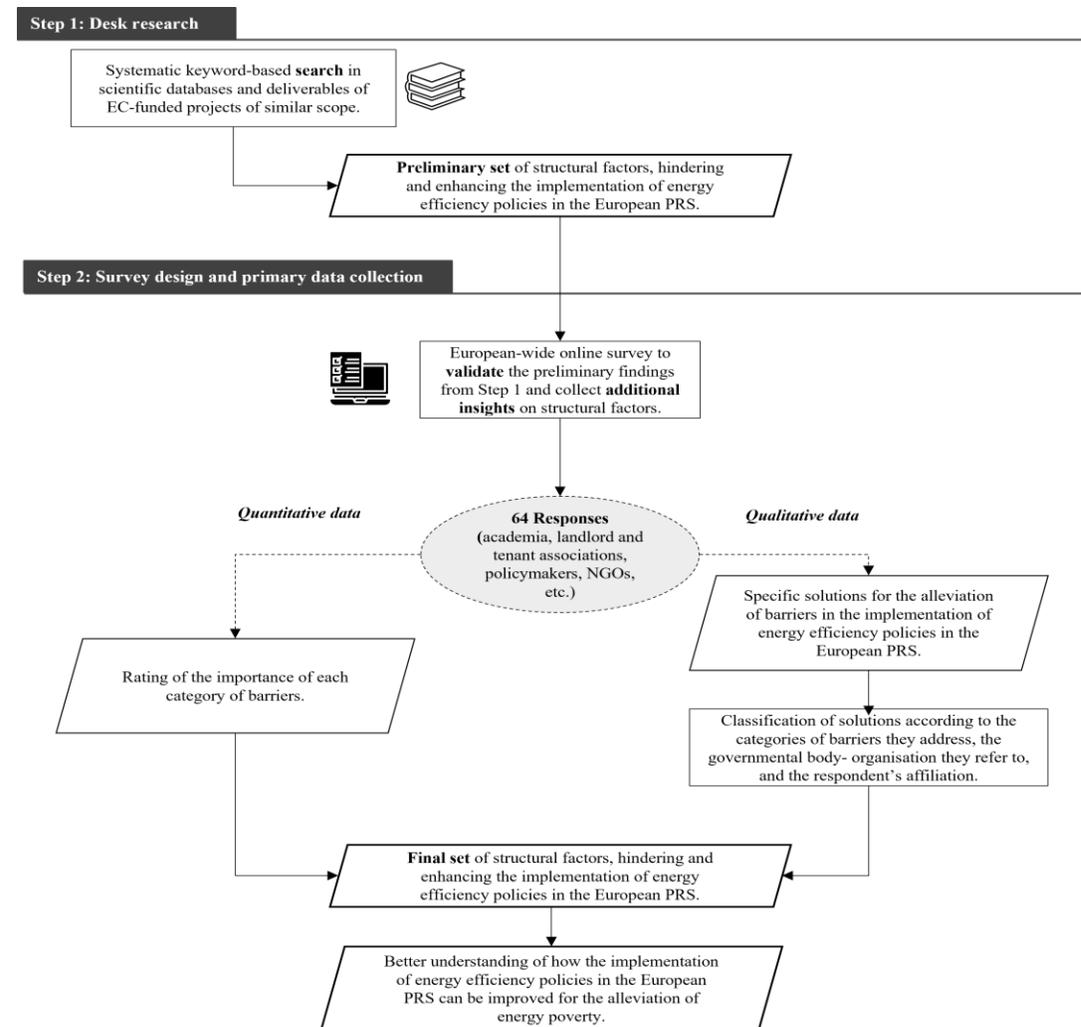
STRUCTURAL FACTORS TO ENERGY EFFICIENCY POLICY IMPLEMENTATION

Aim & Methodology

Aim to assess and understand structural factors that work as barriers and solutions to energy efficiency policy implementation in the PRS.

Methodology:

- ❖ Step 1: Desk research
- ❖ Step 2: Survey design and primary data collection



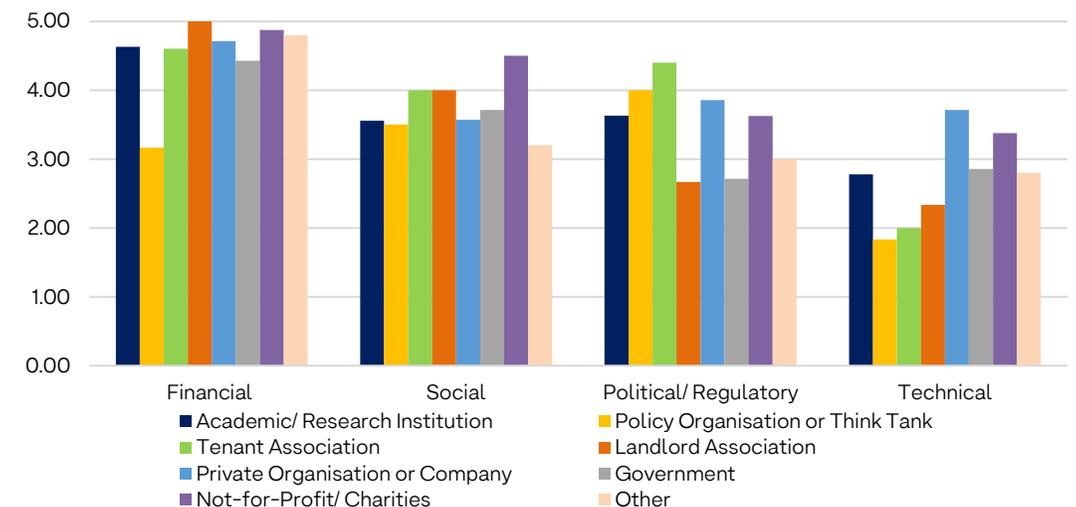
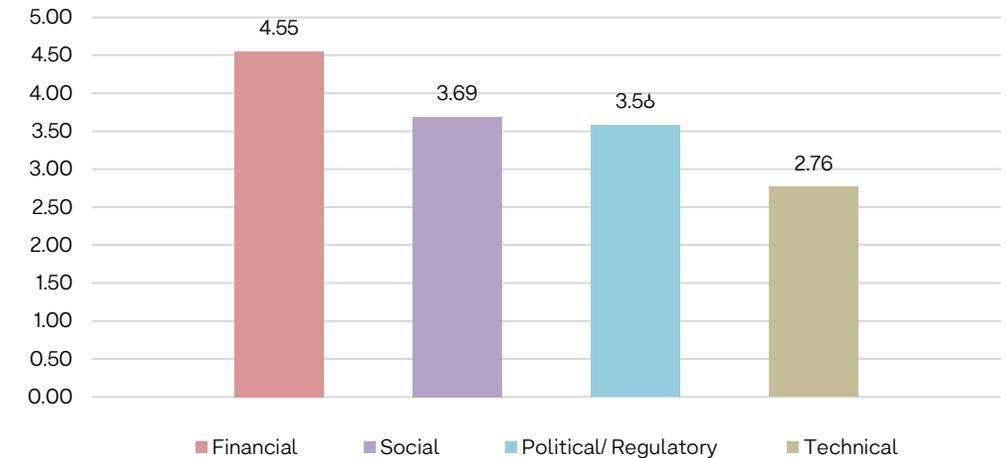
STRUCTURAL FACTORS TO ENERGY EFFICIENCY POLICY IMPLEMENTATION

Desk-Research and Survey Findings

Structural Barriers identified:

- Financial;
- Social;
- Political/Regulatory;
- Technical.

Categories	Barriers
Financial	- Split-incentives/ lack of direct financial incentive to landlords.
	- High upfront costs/ lack of funding schemes.
	- Return on investment.
	- Increased rent (often exceeding the overall energy savings).
	- Energy efficiency does not increase the value of the property.
Social	- Broader social vulnerability in the sector (e.g., unemployment, single parents, ethnic minorities, etc.).
	- Tenants' and landlords' mistrust in governmental policies.
	- Stigmatisation and time-consuming, complex processes.
Political/Regulatory	- Small scale, low-income landlords.
	- Political invisibility/ lack of data on energy poverty amongst tenants in the PRS.
	- Lack of energy labelling and mandatory efficiency schemes.
Technical	- Lack of information.
	- Lack of technological knowledge for implementing effective solutions.
	- Energy usage behaviour/ rebound effect.



STRUCTURAL FACTORS TO ENERGY EFFICIENCY POLICY IMPLEMENTATION

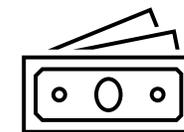
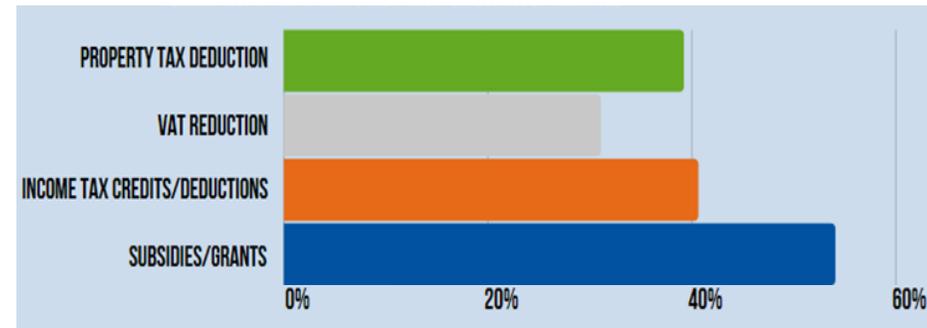
Findings: Financial Barriers and Solutions

Financial Barriers

- **Split incentives** – lack of direct financial incentives-high upfront costs (assessment, installation, replacement, financing costs, etc.)
- **Property value increase.**

Financial Solutions

- **Support packages** for landlords (grants, subsidies, tax relief, etc.).
- **Stakeholder responses/ suggestions.**



STRUCTURAL FACTORS TO ENERGY EFFICIENCY POLICY IMPLEMENTATION

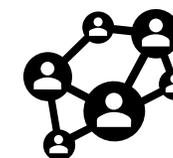
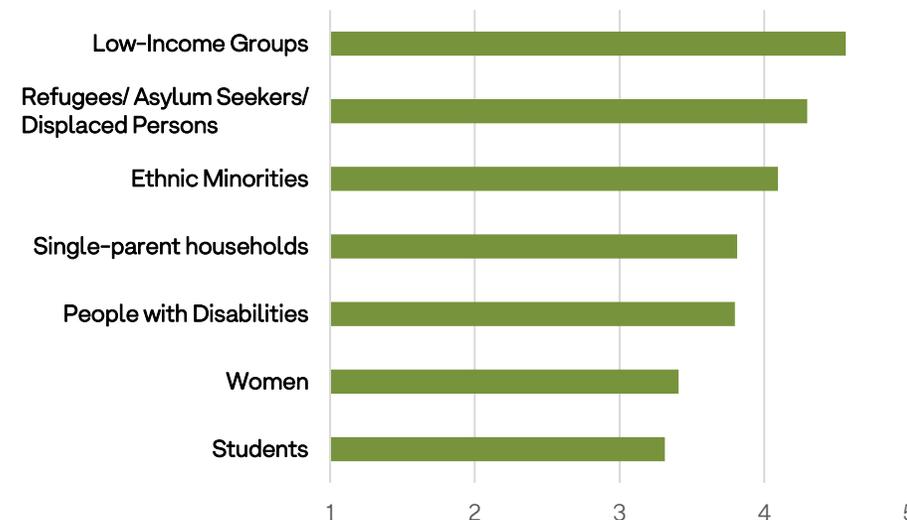
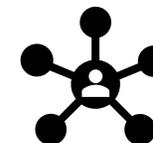
Findings: Social Barriers and Solutions

Social Barriers

- The presence of **vulnerable** and low-income social groups in the European PRS.
- **Mistrust** towards energy consultants, government policies.
- **Lack of professionalism** in the sector.

Social Solutions

- Improved **outreach**- expansion of advice services/ specific consulting services.
- **Education** on energy efficiency measures
- Increased and **systematic participation** in landlords'/ tenants' associations.
- Stakeholder responses/ suggestions.



STRUCTURAL FACTORS TO ENERGY EFFICIENCY POLICY IMPLEMENTATION

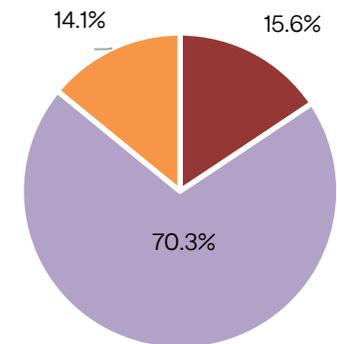
Findings: Political/ Regulatory Barriers and Solutions

Political/ Regulatory Barriers

- **Political invisibility** of the most vulnerable tenants, esp. in the PRS.
- **Low level of awareness** of EU-based policies that address energy efficiency in the PRS even from relevant stakeholders.
- Few policies adequately face **the specificities** of the PRS, or they are sufficiently targeted to the **lower-income, vulnerable** segment of the PRS.

Political/ Regulatory Solutions

- Creation and operation of **observatories** at the national and/ or the EU level (e.g., EPO I /EPAH).
- Support of the **dialogue** between **involved** parties, design, and implementation of legal frameworks and specific conditions.
- **Energy performance assessment** of buildings through Energy Performance Certificates & **Mandatory Minimum Energy Performance Standards**.

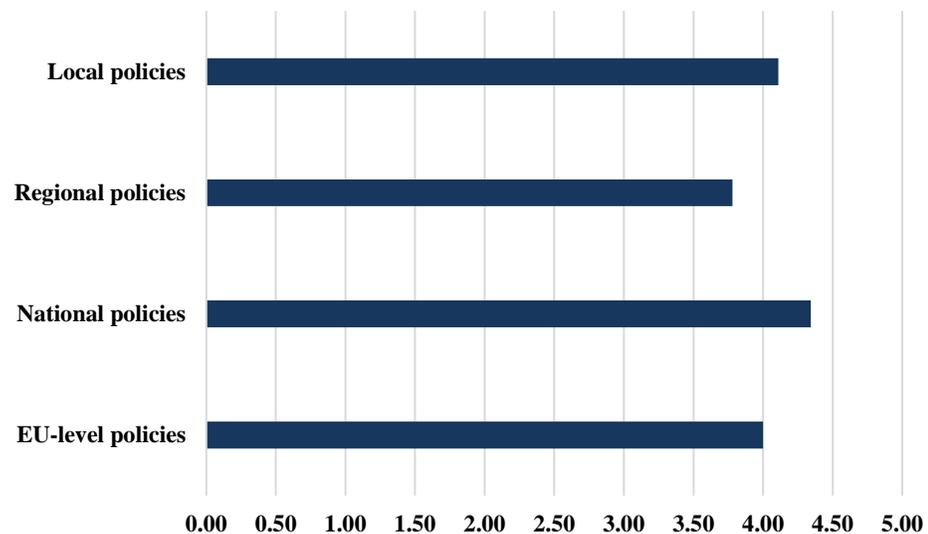


- a. Not Aware - I have never heard of EU-level policies to address issues faced by PRS tenants to improve the energy efficiency of dwellings.
- b. Fairly Aware - I know there are EU-level policies to address issues faced by PRS tenants to improve the energy efficiency of dwellings, but would not know them in detail/ do not know specific information.
- c. Very Aware - I can provide examples of EU-level policies to address issues faced by PRS tenants to improve the energy efficiency of dwellings.

STRUCTURAL FACTORS TO ENERGY EFFICIENCY POLICY IMPLEMENTATION

Findings: A multidimensional perspective of solutions and recommendations

Specific solutions that **governmental bodies** and other organisations, such as NGOs, could implement in order to alleviate the identified barriers when it comes to implementing energy efficiency policies in the European PRS.



Categories of barriers addressed	Solutions	Level of governance	Affiliation of survey respondent
Financial Political/ Regulatory	<i>'oblige landlords to renovate, to support the EU's efforts to reach the 2050 goals, taking into account that tenants do not have to bear all costs.'</i>	EU	Policy organisation/ think tank
Financial Political/ Regulatory Social	<i>'offer tax reduction on the renting revenues if landlords commit to renting their dwellings with a rent lower than the market, along with the requirement that their dwellings meet a minimum energy performance level. Additional tax reductions could be granted if the dwelling is rented in vulnerable groups.'</i>	National	Academia/ Research institution
Financial Political/ Regulatory	<i>'when national governments design energy efficiency financing tools, a detailed mapping of the residency models should be foreseen to support a better allocation of funds based on the real and proven needs of each residency model.'</i>	National	Non-for-profit organisations/ charities
Financial Political/ Regulatory Social	<i>'local governments can assess opportunities and potential negative impacts at project-level and promote tailored financing solutions (e.g., to avoid so-called renovictions, etc.), especially when it comes to vulnerable households.'</i>	Local	Other (city network)

CONCLUSIONS

Drawing Together the Threads of Research

- ✓ Energy efficiency measures key determinant for the alleviation of energy poverty and the improvement of the living conditions in the PRS.
- ✓ Financial barriers the most critical ones by all the different stakeholder groups, except by policymakers.
- ✓ European PRS understudied and relatively invisible, particularly among its lower-income and more vulnerable portions.
- ✓ EU-level strategies can play a significant role in the promotion of energy efficiency policies in the PRS.
- ✓ Correcting for financial constraints alone may not be sufficient in ensuring that the energy performance of the sector is improved, and energy poverty is alleviated.



→ The notion of ‘barriers’ leads to piecemeal approaches.
Barriers and respective solutions cannot be viewed in isolation as
→ they cover financial, social, political/regulatory, and technical issues.



Measuring Energy Poverty in the Private Rented Sector

Florin Vondung (Wuppertal Institute)

With acknowledgements to Manon Burbidge (University of Manchester)

7/1/2022



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 889385.

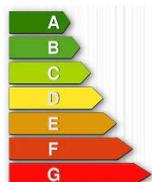
ENERGY POVERTY: A MULTIDIMENSIONAL ISSUE

Drivers of energy poverty



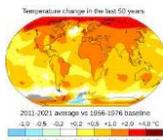
High energy prices
Low income / high expenditure

Inefficient appliances
Building properties /
limited energy agency



Increased energy requirements
Behaviour

Regulatory barriers



Changing climate conditions

Manifestations / Consequences of energy poverty



Financial hardship
Social exclusion

Low living comfort
Bad building conditions



Poor mental health
Poor general health /
respiratory diseases

Increased morbidity
and mortality



CONSENSUAL INDICATORS BASED ON THE EU SURVEY ON INCOME AND LIVING CONDITIONS (EU-SILC)



- **Inability to keep home warm** (ESTAT indicator `ilc_mdcs01`) – the share of a population not able to keep their home adequately warm
- **Arrears on utility bills** (ESTAT indicator `ilc_mdcs07`) – the share of a population having arrears on their utility (water, electricity, gas, heating, etc.) bills
- **Presence of leak/damp/rot** (ESTAT indicator `ilc_mdho01`) – the share of a population with either leak (leaking roof), damp (damp walls/floors/foundation) or rot (rot in window frames or floor) (or all three) in their dwelling.
- **Dwelling not comfortably cool** (ESTAT indicator `ilc_hcmp03`) – based on the question “is the dwelling sufficiently insulated against the warm” and/or “is the cooling system efficient enough to keep the dwelling cool”

EXPENDITURE BASED INDICATORS BASED ON THE HOUSEHOLD BUDGET SURVEY (HBS)

- **2M: High share of energy expenditure in income** – the share of households whose share of energy expenditure in their income is more than twice the national median share.
- **M/2: Low absolute energy expenditure** – the share of households with less than the median income whose energy expenditure is below half the national median value.
- **Low income, high cost (LIHC)** – the share of households, whose energy expenditure is above the median energy expenditure in a country/region and whose income falls below the respective poverty risk threshold (below 60% of national median household income) after subtracting energy expenditure.



COMPOSITE AND OTHER INDICATORS BASED ON THE EU SURVEY ON INCOME AND LIVING CONDITIONS (EU-SILC)



- **Composite Energy Poverty Indicator for the PRS: REPI = $(a+b+(c/2))/3 * d$**

Where:

a = the share of people unable to keep the home adequately warm in the PRS.

b = the share of people reporting utility bill arrears in the PRS.

c = the share of people reporting housing faults (damp, mould, rot in window frames or doors) in the PRS.

d = the share of people living in the PRS.

Other indicators:

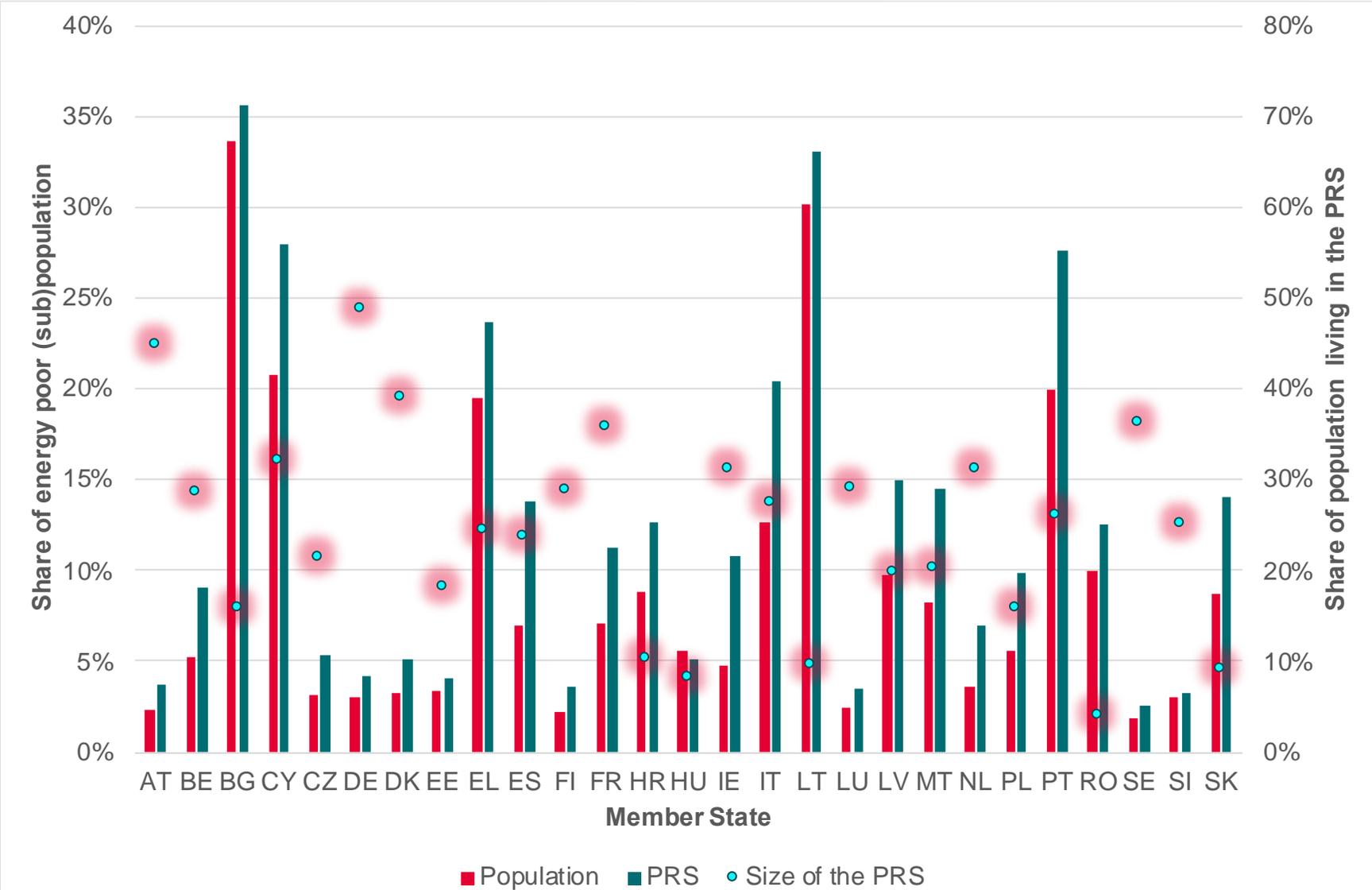
- **Poverty risk** (ESTAT indicator ilc_peps01) – the share of a population that is at risk of poverty or social exclusion, defined as having a household income that is below 60% of the median household income in a country/region.
- **Relative Risk of Asthma** – the share of a population with asthma due to dampness and mould in the building
- **Size of rental sector** – the share of people which privately rent (i.e., do not own their homes or live in social housing) in a given country/region.
- **Share of tenants in the energy poor population** (soon available)

OVERVIEW OF INDICATORS

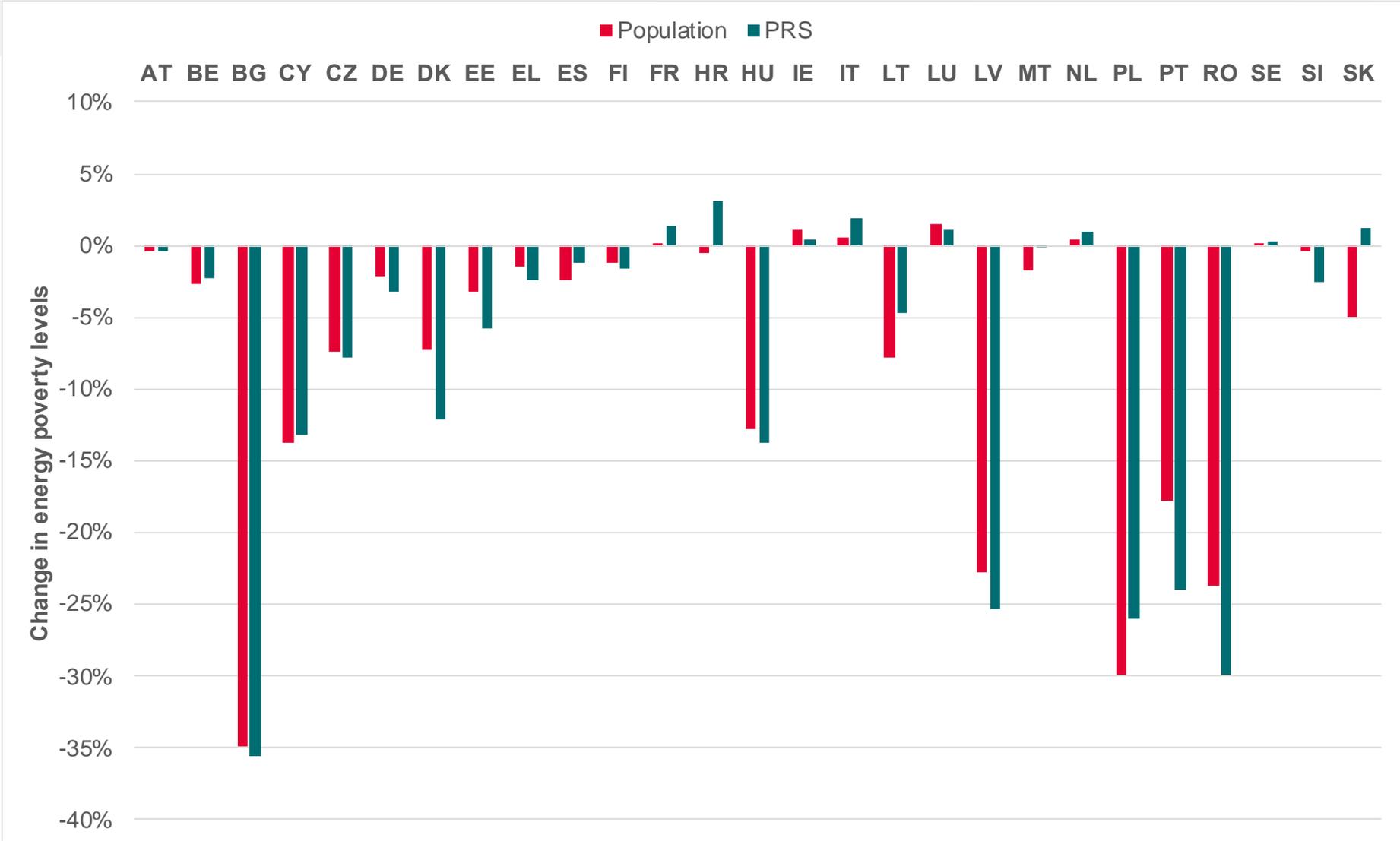


Data base	EU Survey on Income and Living Conditions (SILC)	Household Budget Survey (HBS)
Type	Consensual and derived indicators	Expenditure based indicators
Survey interval	yearly	Irregular, harmonisation in 5-year intervals
Temporal coverage	2004-2019 (soon 2020)	2010 and 2015
Geographical coverage	EU27 (EU26 until 2016)	
Indicators	<ul style="list-style-type: none"> Inability to keep home adequately warm Arrears on utility bills Presence of leak, damp or rot Home not comfortably cool in the summer REPI: Composite Energy Poverty Indicator for the PRS <p>Derived and others:</p> <ul style="list-style-type: none"> Share of tenants in the energy poor population (soon available) Poverty risk Relative risk of asthma 	<ul style="list-style-type: none"> '2M': % of households spending twice the national median share of energy in income 'M/2': % of households with less than the median income whose energy expenditure is below half the national median value LIHC: % of households with energy expenditure above the median value in a country/region and whose income falls below the poverty threshold after subtracting energy expenditure.
Disaggregation by	Tenure, Geographical units (National, NUTS1, NUTS2)	

ENERGY POVERTY IN THE PRS – INDICATOR ‘INABILITY TO KEEP HOME ADEQUATELY WARM’ (2019)



ENERGY POVERTY IN THE PRS – INDICATOR ‘INABILITY TO KEEP HOME ADEQUATELY WARM’ (2019)



THE ENERGY POVERTY DASHBOARD

Manon Burbidge (University of Manchester)

With acknowledgements to
Stefan Bouzarovski (University of Manchester) &
Florin Vondung (Wuppertal Institute)



This project has received funding from the European Union's Horizon 2020
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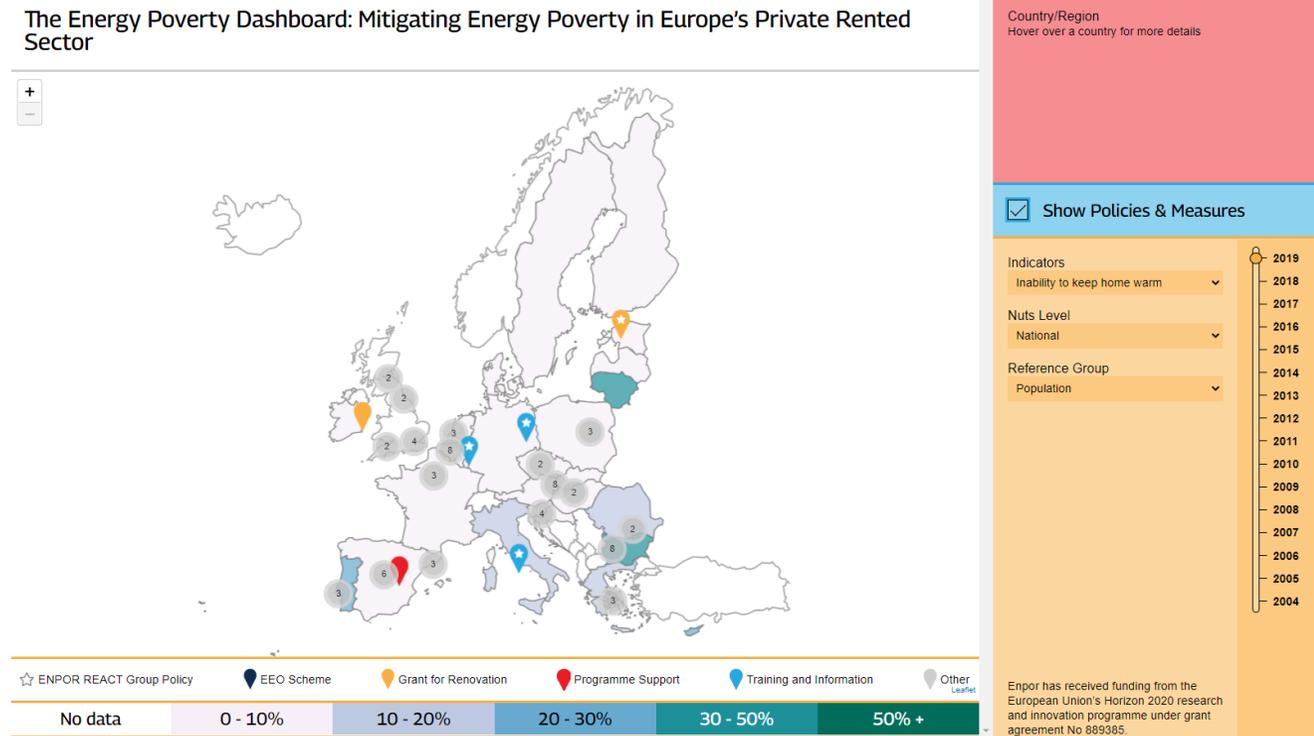
MAKING ENERGY POVERTY IN THE PRS VISIBLE

Making PRS Policies visible using the Energy Poverty Dashboard

Energy Poverty Dashboard tool

- The aim:
 - Seeks to make **PRS energy poverty and the policies that are designed to tackle it more visible**, create platform for knowledge exchange and become a useful resource.
- Contains two types of data:
 - The first is **SILC and household budget indicator data** displayed to show visual trends and patterns
 - Second is **policies and measures** that are working to tackle energy poverty in the PRS across Europe.

(ENPOR, 2022)



MAKING ENERGY POVERTY IN THE PRS VISIBLE

Features of the EPD: How it works

The Energy Poverty Dashboard

Submit a Policy or Measure



Energy Efficiency

Category
Grant for

Scale
National

Policy Implementing Authority
Sustainable

Country/Region

Please only submit a policy or measure if it is applicable to the Private Rented Sector (i.e. available and accessible for landlords and/or tenants). If you have any queries, or you are unsure about anything on this form, please email contact@enpor.eu to discuss the issue.

Policy Name *(Required)*

Country *(Required)*

Scale

Year Commenced

Policy Implementing Authority and Location

Short Description

0 of 600 max characters

Website Link *(Required)*

https://

Population

2010

tea

Country/Region
Hover over



ures

s and homeowners to
their homes, providing
available for insulation,
(2011), heating controls
(to 2011).

agreement No 889385.

MAKING ENERGY POVERTY IN THE PRS VISIBLE

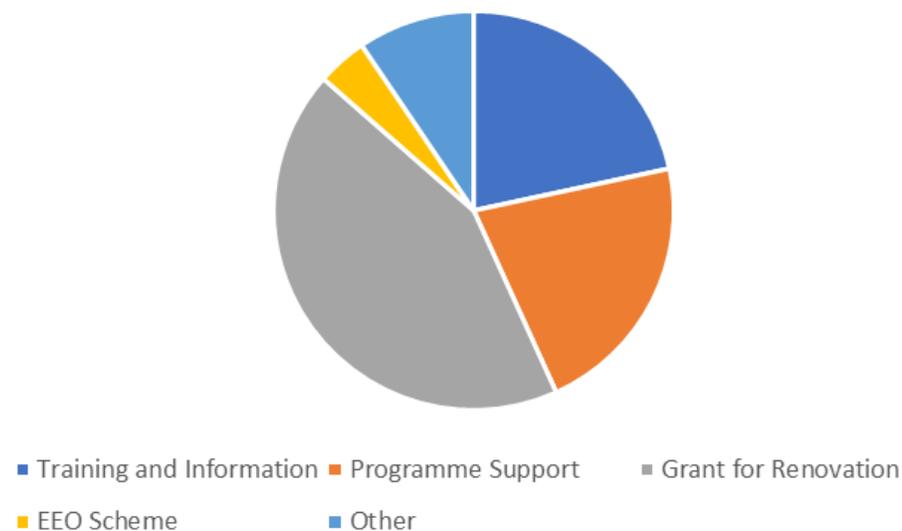
Policy Submissions and Findings

(ENPOR, 2022)

Policies:

- Contains **75 policies** from across Europe
 - Relevance and quality checked
 - More are pending
 - **45% are grants for renovation**
 - **Majority aren't PRS specific**; several aren't aimed at low-income/vulnerable groups
- **Good geographical coverage** but still missing policies from the Nordic countries
- Please submit to the EPD to increase our library

Policy Categorisation Breakdown



MAKING ENERGY POVERTY IN THE PRS VISIBLE

Future work and development

(ENPOR, 2022)

Policy Analysis

- Reiteration of policy analysis in early 2023 using policy submissions from EPD
- Better understanding of extent of policy coverage, types and effectiveness

EPD Development

- Addition of latest SILC data
- Addition of new indicator
- Refine UX
- Make data downloadable and open access
- Expansion into a wider energy justice hub as part of the ENJUST project grant

Submit a Policy or Measure

Please only submit a policy or measure if it is applicable to the Private Rented Sector (i.e. available and accessible for landlords and/or tenants). If you have any queries, or you are unsure about anything on this form, please email contact@enpor.eu to discuss the issue.

Policy Name *(Required)*

Country *(Required)*

Scale

Year Commenced

Policy Implementing Authority and Location

Short Description

0 of 600 max characters

Website Link *(Required)*

Visit energypoverty.info to explore the data and policies

Co-design process for the adaptation of policies to combat energy poverty in the private rented sector

Christos Tourkolias (CRES)

*With acknowledgements to
Dimitris Papantonis & Dimitra Tzani (UPRC TEESlab)*



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 889385.

EXAMINED PILOT POLICIES WITHIN ENPOR PROJECT

Grant for renovation

- M2. Financial support scheme for thermal refurbishment measures for low-income households (Austria)
- M5. National reconstruction grant (Estonia)
- M6. Energy upgrade of buildings (Greece)
- M8. National Programme for Renovation of Buildings (Croatia)

Training and information

- M1. Low-threshold, target group-specific consulting (Austria)
- M3. Heating related energy advice (Germany)
- M4. Pre-paid metering EnergieRevolve (Germany)
- M9. Training and Information Campaign (Italy)

Energy efficiency Obligation Scheme

- M7. Energy Efficiency Obligation Scheme (Greece)

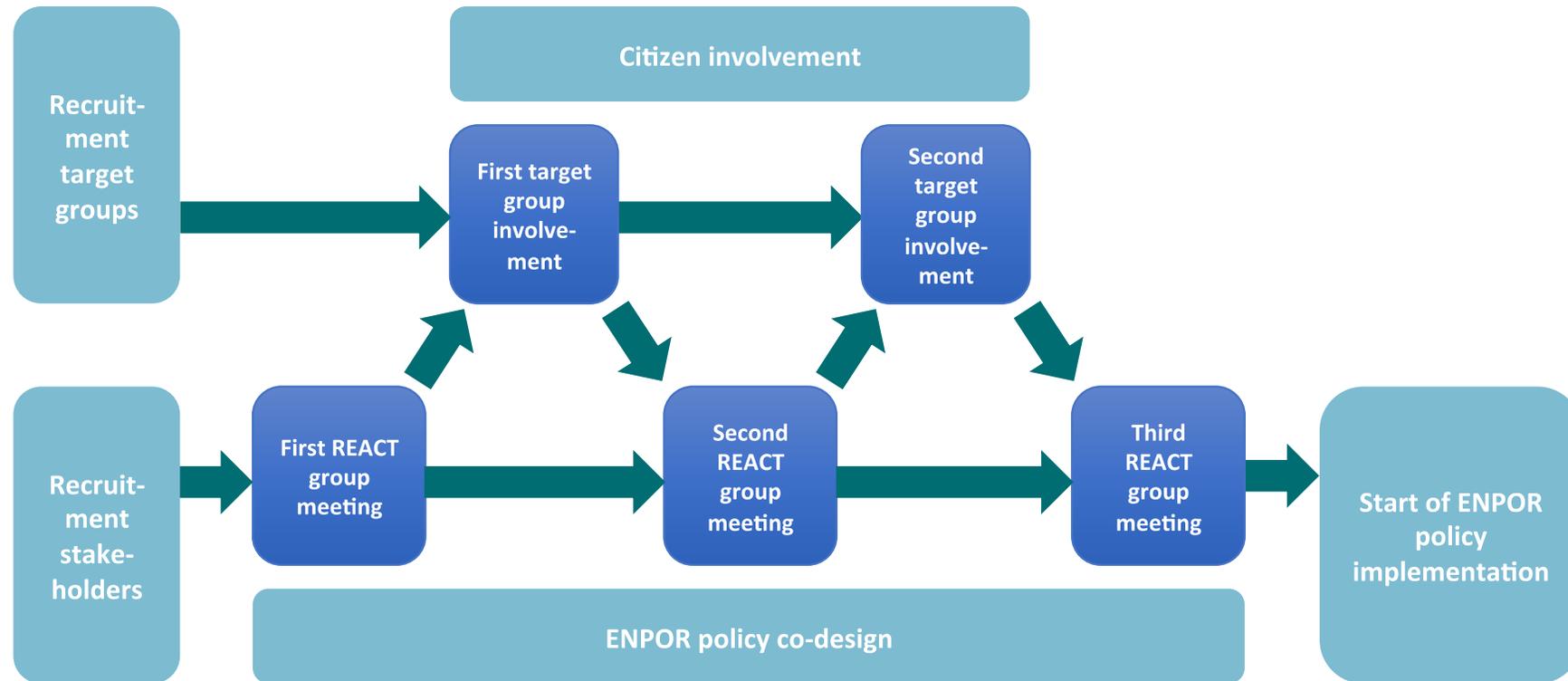
Programme support

- M10. Energy Box (Nederland)



Emphasis has to be given on Private-Rented Sector

ENPOR POLICY CO-DESIGN PROCESS



ORGANISED REACT AND TARGET GROUP MEETINGS



Country	Pilot policy	1 st REACT group meeting	1 st Target group meeting	2 nd REACT group meeting	2 nd Target group meeting	3 rd REACT group meeting
Austria	M1	X	X	X		
	M2	X				
Germany	M3	X	X	X	X	X
	M4	X	X			
Estonia	M5	X		X		X
Greece	M6					
	M7	X	X	X		X
Croatia	M8	X	X	X		X
Italy	M9	X		X		
Nederland	M10	X	X	X		X

OVERVIEW OF THE MAIN POLICY IMPROVEMENTS



Country	Pilot policy	Type of measure	Policy improvement
Austria	M1	Training and information	Development of new information leaflets with more effective and more accessible formats emphasizing on the visual language
	M2	Grant for renovation	Non completion
Germany	M3	Training and information	Conduction of the measure focusing on the health and comfort issues and utilizing more effective visual content and tools
	M4	Training and information	Improved visualization of electricity consumption with reference values and integration of subpage with additional information on energy conservation, energy advice offers and state support options.
Estonia	M5	Grant for renovation	Provision of specific recommendations for highlighting the importance of renovation capacity, enhancing the capacity of the involved parties and adapting the available public grant funds to increase the renovation capacity including proposals to Tartu City Government
Greece	M6	Grant for renovation	Inclusion of the tenants as a distinct social criterion in the “Energy upgrade of buildings” programme foresees the and development of a framework for taking into account the shared benefits among landlords and tenants
	M7	EEOs	Conduction of targeted information and awareness-raising activities by the energy suppliers providing useful and effective guidance to energy poor households
Croatia	M8	Grant for renovation	Materialization of targeted measures, introduction of specific criteria and promotion of more systematic education about energy poverty
Italy	M9	Training and information	Conduction of targeted communication initiatives and development of information tools to facilitate the decision-making process
Netherland	M10	Programme support	Development of a tool for analyzing the energy poverty problem in targeted neighborhoods though technical, social and area-dependent indicators so as to support information measures and pilot programmes

KEY FINDINGS

Implement a well-balanced mixture of policies and measures with the active participation of landlords and tenants

Foresee the co-financing of the required energy efficiency interventions by landlords and tenants

Design the policies sharing the triggered benefits equivalently between landlords and tenants

Take into consideration the actual needs, priorities and expectations of both landlords and tenants

Organize targeted information and awareness-raising measures

Provide clear and comprehensible information through specialized experts

Integrate into the analysis the additional multiple benefits

Initiate an open consultation procedure with the active participation of landlords and tenants for creating trust

Foster the participation of the municipalities

Apply simplified and standardized procedures for the participation of energy poor households into the planned policies

Study the behavioral problems, which are triggered by the phenomenon of energy poverty

Examine carefully the application of regulatory measures so as not distort the market and lead to renoviction



ENPOR's target is challenging and difficult to be achieved due to the fact that the alleviation of the energy in the PRS is a holistic and multidimensional problem affecting different economic sectors!

Thank you for joining our Symposium

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