



ComAct

Community
Tailored Actions
for Energy Poverty
Mitigation

2022 Covenant of Mayors Investment Forum – Energy Efficiency Finance Market Place

October 18, 2022 Brussels



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 892054.

Outline of the presentation

- About ComAct
 - Identifying energy poor
 - **Empowering** and activating the communities of homeowners
 - **Financing schemes** for energy poor households
 - **Optimizing Technical Solutions** for energy efficiency in MFABs
 - Pilot implementation & Case study
 - Impact
 - Policy Recommendations
-

Context

- Multi-apartment building with poor energy features built pre-90s represent large percentage of the housing stock
- Low quality of housing
- Low renovation rate of MABs
- Central and Eastern Europe (CEE) is the most energy-poor region in Europe



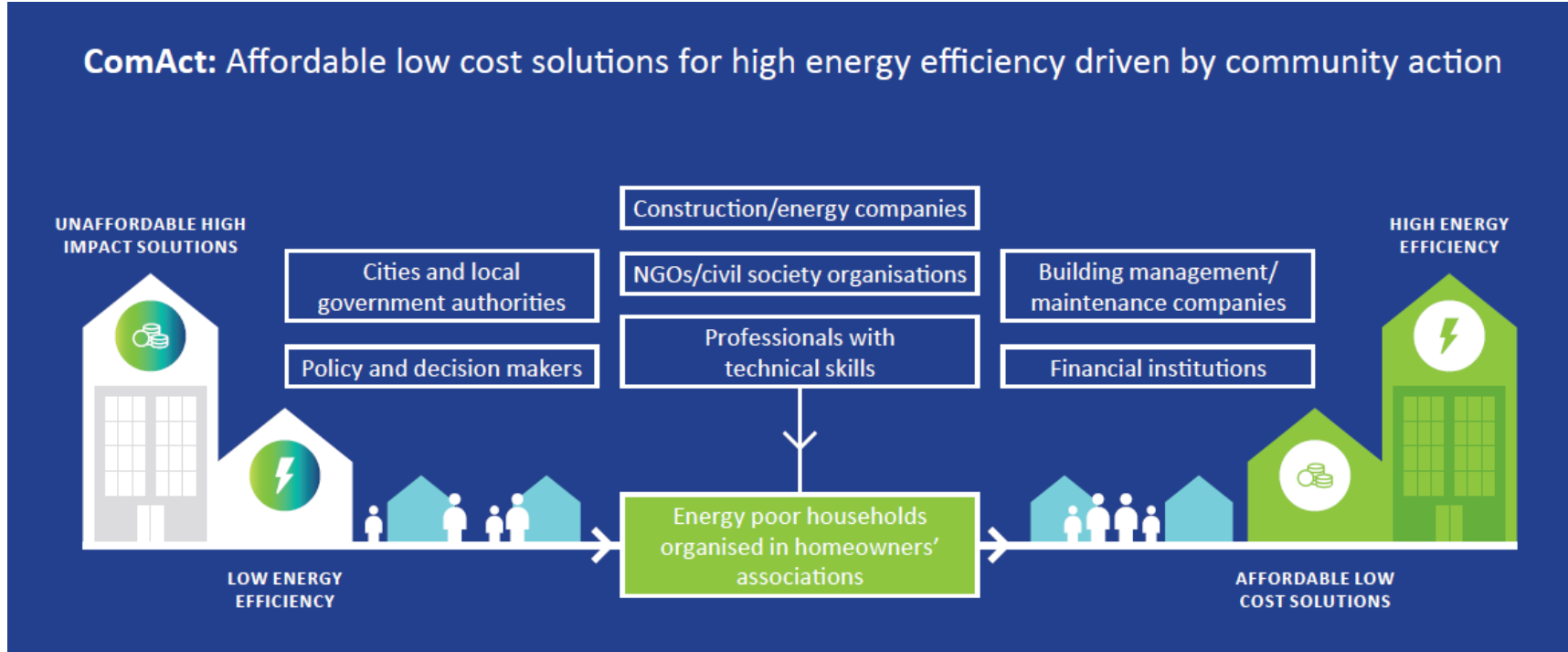
Project overview

- 36 months: September 2020-August 2023
 - 2 mil EUR
 - Donor: European Commission H2020
 - Nadacia HFHI-Coordinator
 - 5 pilots: Hungary, Bulgaria, Lithuania, Macedonia, Ukraine
 - Project built from bottom up-based on a Community of practice and previous project REELIH
 - 10 partners: BPIE, MRI, IWO, ALCO-LVOA, ENEFFECT, BURGAS, OHU, HFH Macedonia, ENOVA, Nadacia HFHI
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Partners



Main Objective



Three dimensions of multi-apartment building renovation



Empowering and activating the communities of homeowners' associations



Developing/adapting financial tools that provide financing for low-income families



Optimising technical solutions that provide most favourable cost-benefit ratio for the energy efficient improvements at a multi-family apartment building level.

Pilot cases



Assessment of energy poor households in multi-family buildings



Adaptation/development of financial schemes



Stakeholder engagement



Optimisation of technical solutions



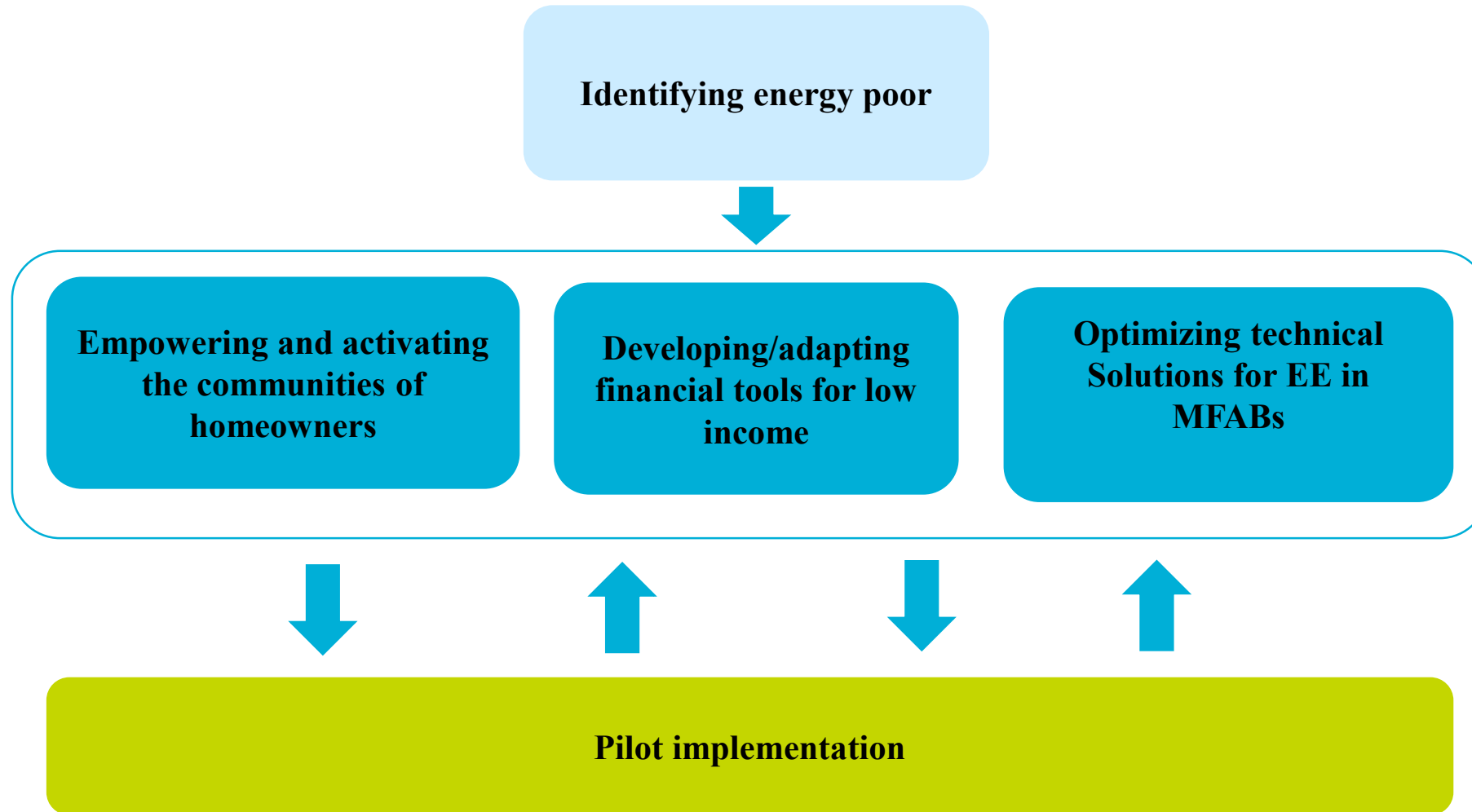
Strengthening homeowners' associations and activating communities

Innovation

- ComAct aims to understand the relationship between energy-poor households and energy-poor communities
- It is rare that high-cost interventions in energy efficiency of MABs are coupled with private ownership under the theme of energy poverty.
- Developing methods that make disorganized communities capable of articulating their interest and act in a coordinated way.



Project structure



Identifying energy poor

- **Survey**
- Budapest (HU), Burgas (BG), Kaišiadorys and Tauragė (LT), Karpos and Kavadarci (MK) and Odessa (UKR)
- 200-225 households in each pilot country, **1025** in total
- Households living in
 - their own dwelling (not tenants),
 - in **multi-family buildings** (MFBs) in a worse financial situation and technical condition than the average – **vulnerable from an energy poverty point of view**

- D1.2: *Guidebook on the concept of energy poverty and its relevance in the five pilot countries*



Guidebook on the concept of
energy poverty and its relevance in
the five pilot countries

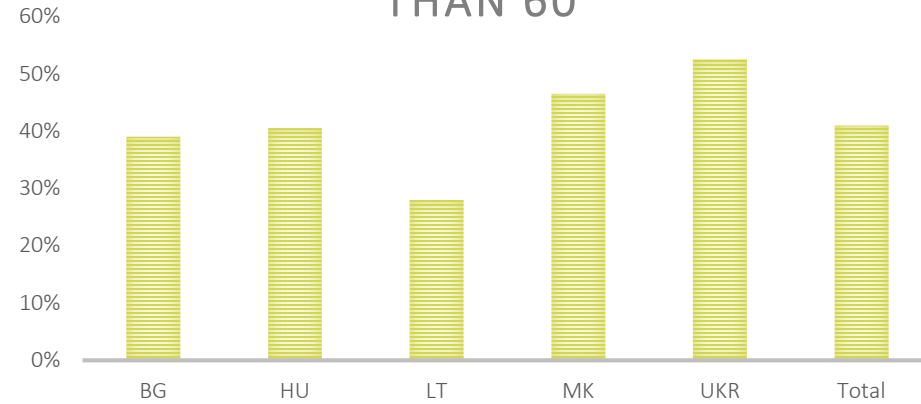
Energy poverty in multi-family buildings in the post-socialist
regions

Guidebook on the
concept of energy
poverty and its
relevance in the ComAct
five pilot countries

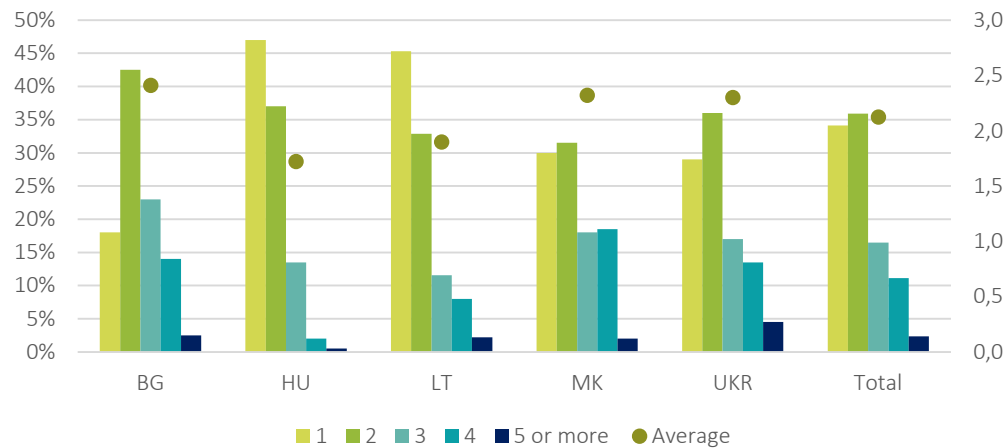
Survey: Demographic highlights

- Old and childless sample
- the main household size is 2.1 persons across the five countries (BG 2.4 - HU 1.7)
- Share of single person households is high

SHARE OF RESPONDENTS OLDER THAN 60



Household size (persons)

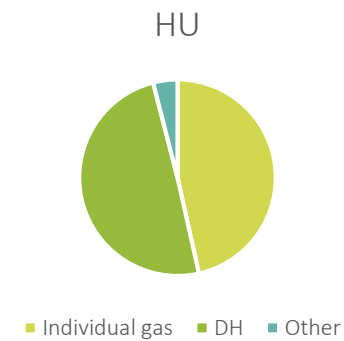
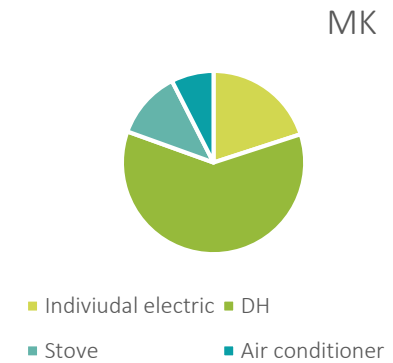
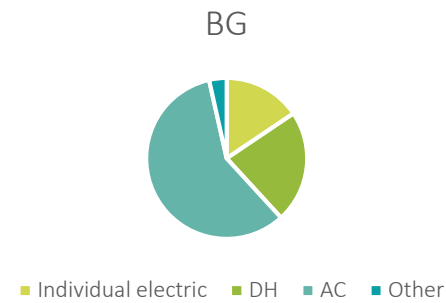
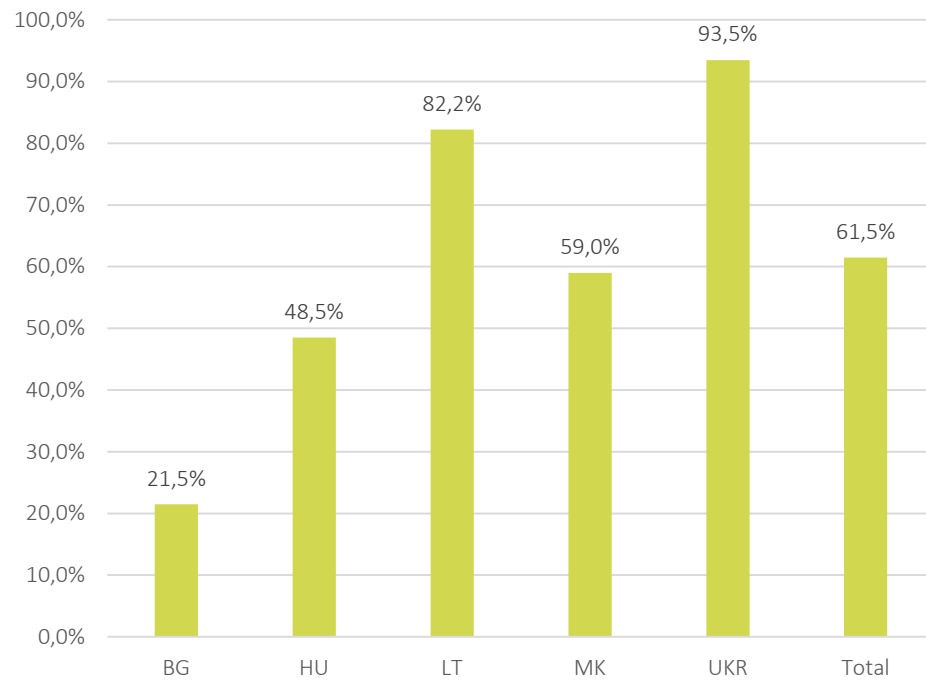


	BG	HU	LT	MK	UKR	Total
Families with children	25%	12%	24%	24%	18%	20%
Families without children	75%	89%	76%	77%	82%	80%

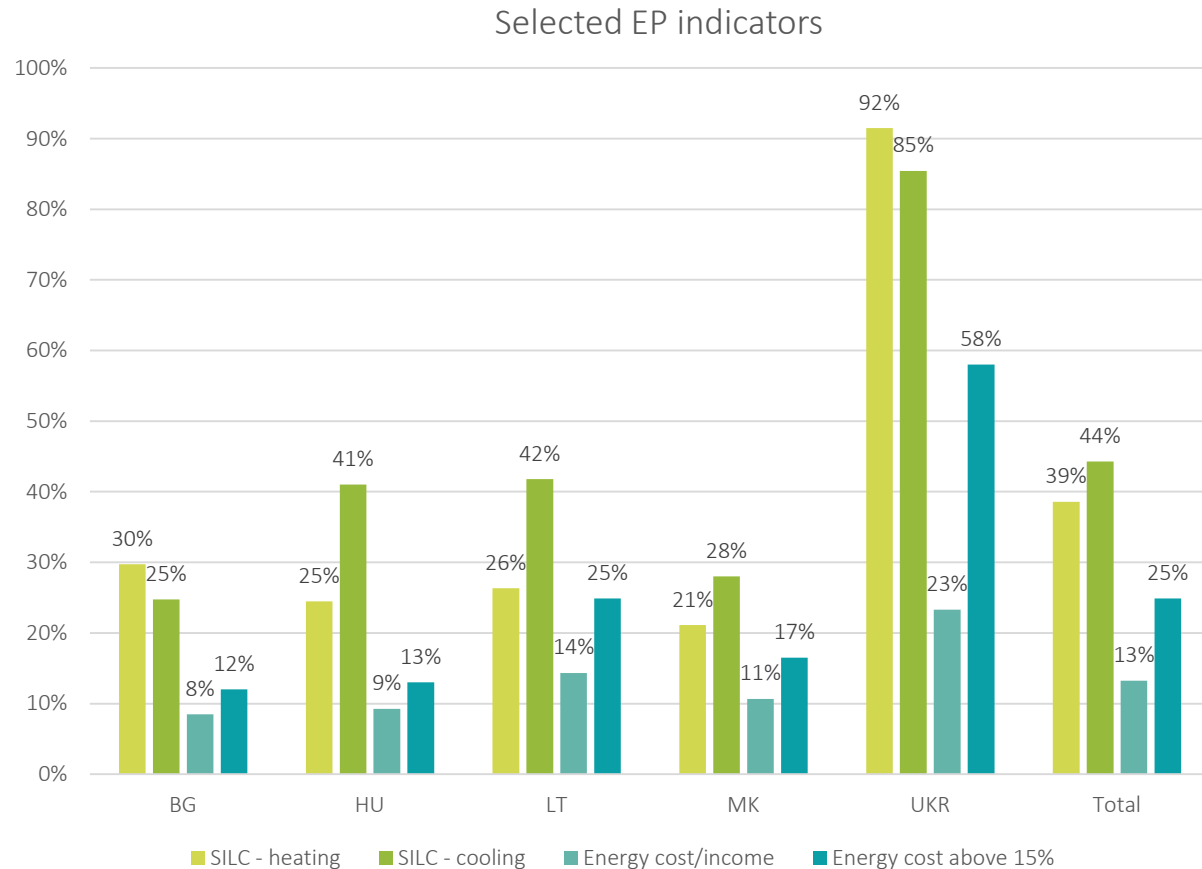
Survey: District heating dominance

Use of electricity, AC, gas

Share of dwellings using DH



Survey: Preliminary highlights – Energy poverty

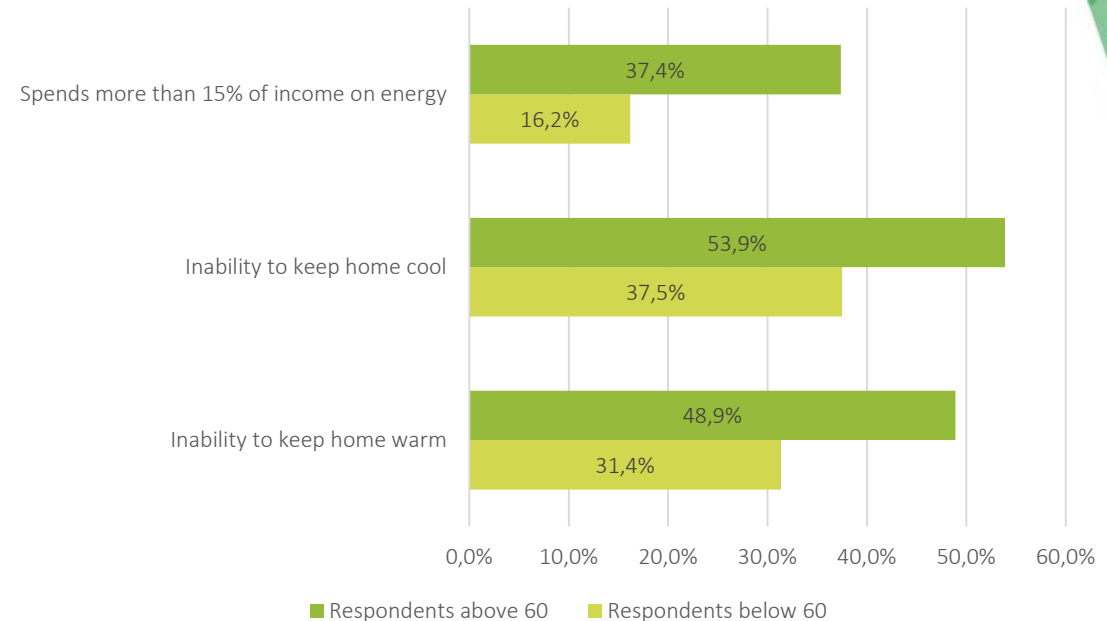


- Two dimensions of energy poverty: **comfort and affordability**
- Does not correspond with the national figures
- Focus is on how energy poverty works, who are the vulnerable groups etc. rather than on the rate of energy poverty

Survey: Factors behind energy poverty

- Low-income is the main factor of energy poverty
- Social factors affect more strongly
- What are the vulnerable household types?
 - The elderly – low income, living alone and in bigger dwellings
 - Gender issue- these are usually elderly women
 - Unemployed
 - Having (few) children does not increase vulnerability
- Varies a lot country by country

Energy poverty below and above 60 years (whole sample)



Empowering and activating the communities of homeowners

Theoretical background

- Inventory of community activation and stakeholder engagement techniques with special attention to the geographical coverage of ComAct
- Stakeholder engagement and community involvement strategy for each of the 5 pilots



The cover of the report 'D2.2 Stakeholder engagement and community involvement strategy' features a photograph of a modern apartment building with several windows illuminated from within, suggesting a warm and active community. The ComAct logo is prominently displayed at the top. The title and subtitle are centered on the page, and a grid of logos for the project's partners is shown at the bottom.

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D2.2 Stakeholder engagement and
community involvement strategy

Empowering and activating key stakeholders in Bulgaria,
Hungary, Lithuania, North Macedonia and Ukraine

Habitat for Humanity, LVCA, BPiE, ENOVA CONSULTANTS AND ENGINEERS, Habitat for Humanity, IWO, EnEffect, and other logos.

www.comact-project.eu 30/04/2021



The cover of the report 'D2.1 Inventory of community activation and stakeholder engagement techniques with special attention to the geographical coverage of ComAct' features a photograph of a modern apartment building with several windows illuminated from within. The ComAct logo is prominently displayed at the top. The title and subtitle are centered on the page, and a grid of logos for the project's partners is shown at the bottom.

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D2.1 Inventory of community
activation and stakeholder
engagement techniques with
special attention to the
geographical coverage of ComAct

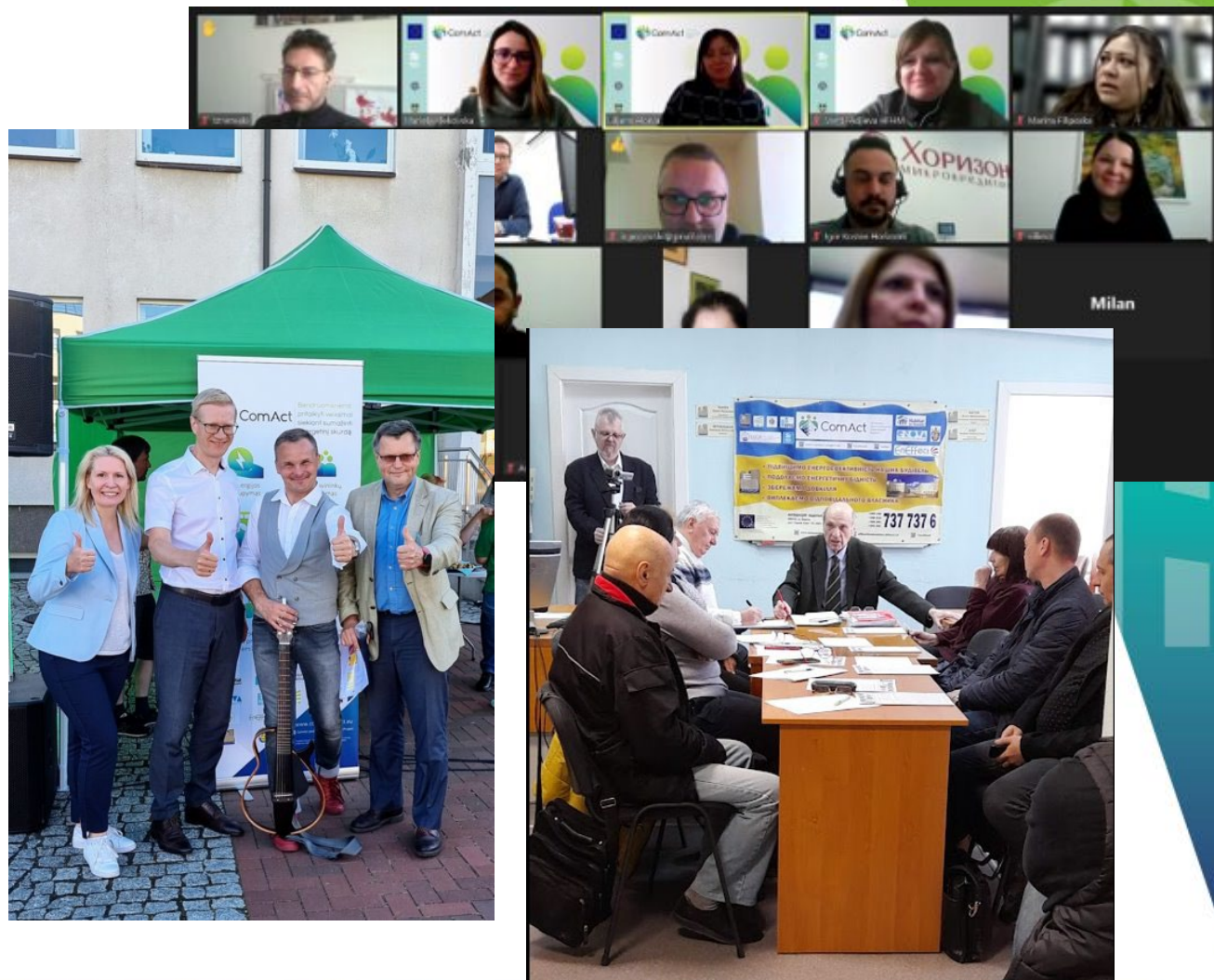
Habitat for Humanity, LVCA, BPiE, ENOVA CONSULTANTS AND ENGINEERS, Habitat for Humanity, IWO, EnEffect, and other logos.

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Assisting with implementation of the Stakeholder Engagement and Community Involvement Strategies

- Establishing Energy Advisory Resource Centers' Work Plans for 5 pilot countries
 - Establishing Stakeholders Advisory Groups (SAGs) in 5 pilot countries
 - SAGs of local prominent/influential and interested in EE actors from business, public and civil society sector are established in pilot countries. Depending on the situation in each pilot country, SAGs have dominant representation from national or local level EE actors.
-

Resource Centers and community activities in pilots



Financing schemes for energy poor households

Main objectives:

- to provide tailor-made financial schemes targeting low-income households living in multi-family apartment buildings
 - the new schemes will support the already existing public support schemes and financial structures and will explore a set of options that are suitable to implement as stand-alone tools or in combination, within the selected pilot projects
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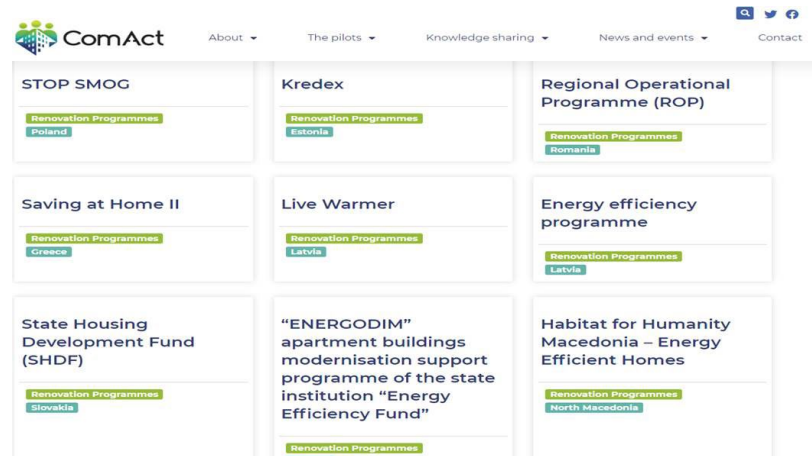
Toolbox of financing models for energy-poor households

<https://comact-project.eu/toolbox/>

- Analysis of the existing financial instruments, end-energy use subsidies, barriers and accessibility for the energy-poor households
- in-depth review performed by desk research with contributions from knowledge of local partners

The toolbox includes information about:

- Available financing schemes in the target countries:
 - **Commercial banks:** Loans, Bonds; Specialized funds: Loans, Cessions; Grant schemes; Energy Performance Contracts; Energy efficiency obligation schemes (Art.7/EED); Emission Trading; Low-income Financial Support (fuel subsidies); Energy Poverty Alleviation; Clean Air Programs
- Most relevant renovation programs in the target region
- Case studies from the regions



In-depth description of new and adapted financing schemes for application in ComAct pilot cases

- In-depth description of financing schemes for application in ComAct pilot cases in cooperation with local partners including:
 - institutional framework and identification of **gaps and bottlenecks**
 - design of the financing scheme
 - basic outline of the **business model** for the key actors
- Output: **new or adapted financing schemes for energy-poor households and implementation** as stand-alone instruments or in combination with other existing financing programs in the 5 pilot countries



In-depth description of new and adapted financing schemes for application in ComAct pilot cases



Optimizing technical solutions for multi family buildings and energy poor

Inventory of energy efficiency measures for low income

- Building typology considered
- Several groups of measures considered
 - 30+ technical measures proposed
 - Simple to complex
- Includes overview of payback period



D4.1 Inventory of energy efficiency technical measures for energy-poor households



D4.2

• Scenarios

Creating optimal scenarios for each pilot building

D4.3

• Education

Trainings for energy advisors in each pilot country

Creating optimal technical scenarios

Input from pilot coordinators were required:

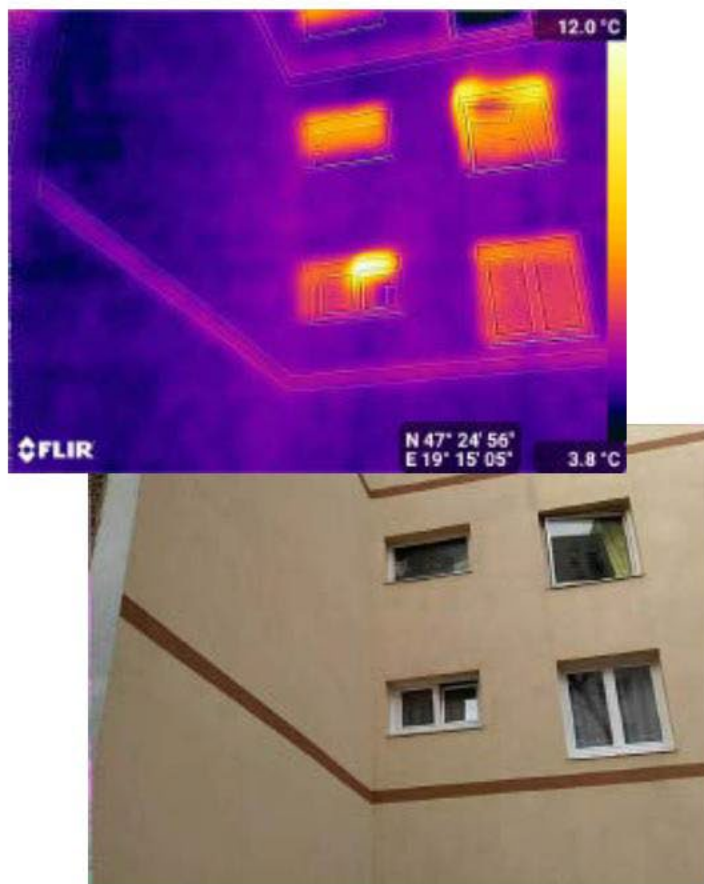
- Assistance during visits
- Climate and insolation data
- Energy prices

Tailor-made, optimal scenarios

- Different stages
- „high-cost” and „high-tech” scenarios included



Visits made to pilots: thermography for creating the scenarios



Outputs

Optimal cost effective technical solutions scenarios for each pilot

Proposed measures

- Envelope
- Heating, cooling, ventilation
- Domestic hot water
- Electricity consumption

Simple and complex measures

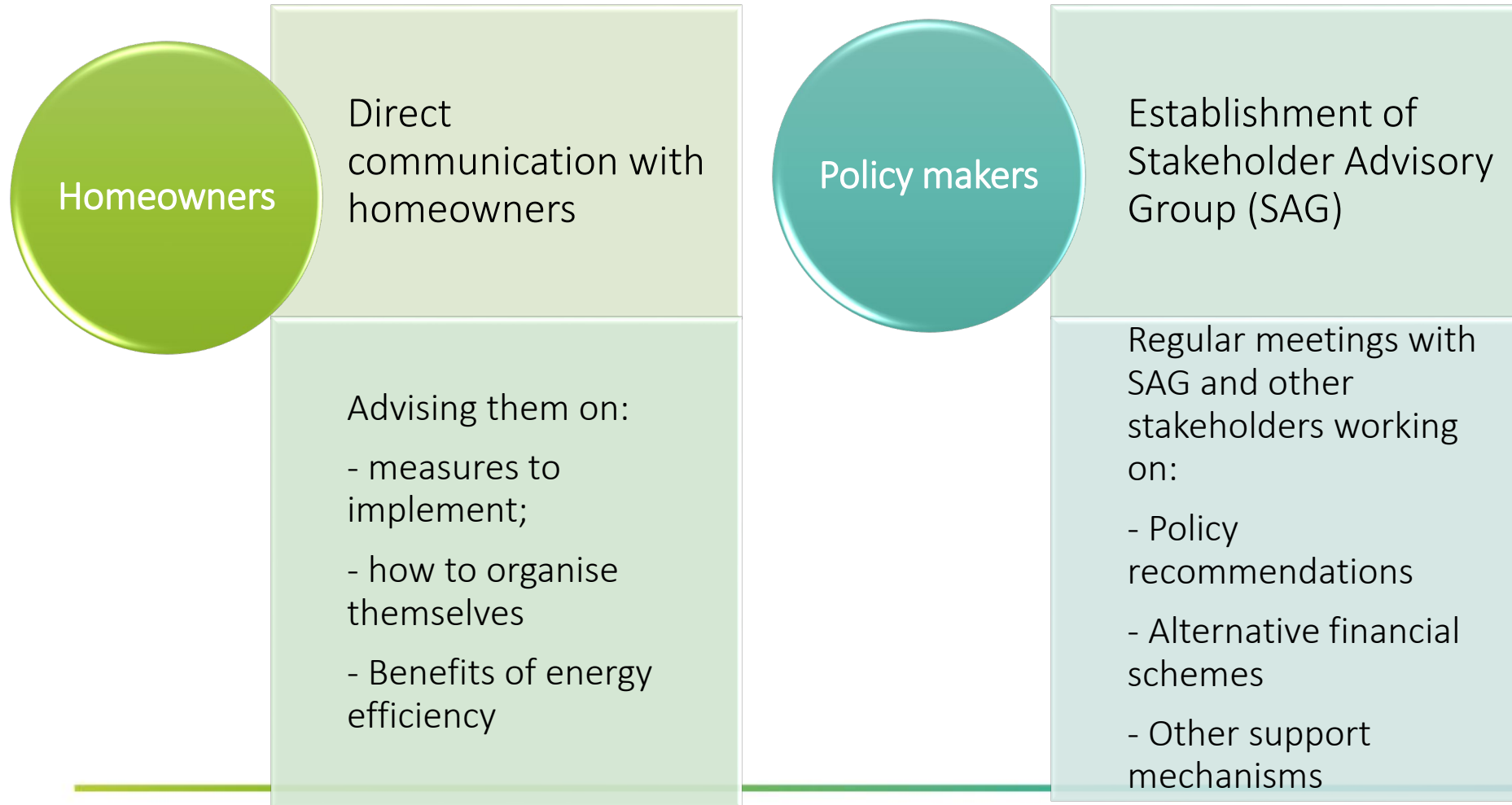
- Analysed separately and individually
- Possible to combine in scenarios
- Combination consider engineering, social and other aspects



Pilots and pilot buildings/communities



Two layers of Stakeholder and community engagement in the pilots



Educational materials for the pilots and resource centers




5 Community at the core of healthy and favourable living conditions
ComAct educational materials

What is a community?

According to German sociologist Hartmut Kuhlmann: "Community is any circle of people who live together and belong together in a way that they do not share this or that particular interest but a whole set of interests."

Residents of a multi-family apartment building can be seen as a community who, as well as living in the same place, share an interest in keeping the building in good condition and improving its energy efficiency.



Educational factsheets on energy efficiency: Community

Brochure

English Bulgarian Macedonian
Lithuanian Ukrainian Hungarian

4 Multiple benefits of higher energy efficiency
ComAct educational materials

Building renovation not only offers multiple health and well-being benefits to the occupants but can also have significant impacts on the building value, rentability and climate protection. Moreover, as well as saving considerable amounts of energy and greenhouse gas emissions, investments in energy efficiency can generate direct or indirect benefits on micro and macro levels, including energy security and decreased health costs.

Benefits of energy efficiency

Energy savings

Educational factsheets on energy efficiency: Multiple benefits

Brochure

English Bulgarian Macedonian
Lithuanian Ukrainian Hungarian

3 Renewable energy
ComAct educational materials

Using renewable energy in multi-family apartment buildings

What is renewable energy?

Renewable energy, often referred to as clean energy, is energy that comes from natural sources or processes that are constantly replenished. For example, sunlight and wind keep blowing and blowing, even if their availability depends on time and weather.

Educational factsheets on energy efficiency: Renewable Energy

Brochure

English Bulgarian Macedonian
Lithuanian Ukrainian Hungarian

2 Increasing energy efficiency
ComAct educational materials

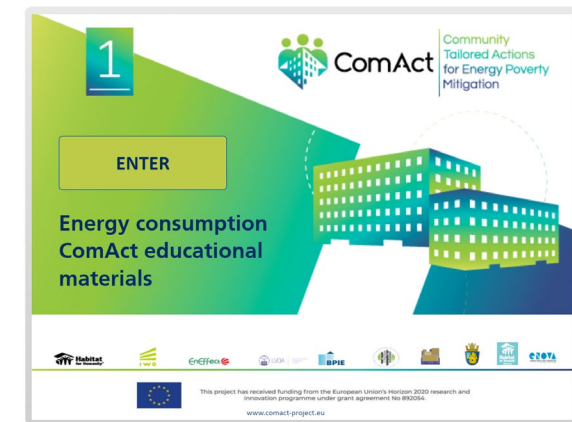
1 Energy consumption
ComAct educational materials



E-learning Knowledge Sharing Platform on the pilots

1st e-learning module based on educational materials for energy advisors (D4.3) <https://comact-project.eu/e-learning-platform/> - Training for energy advisors

2nd e-learning module based on educational materials for energy poor households (D5.2) <https://comact-project.eu/e-learning-platform/>



Case study: Lithuania

Engagement of homeowners' communities

Pilot buildings and communities in:

- **Kaišiadorys city**
- **Taurage city**



On 3 August 2022, an energy efficiency promotion event - the ComAct Community event - took place at the Kaišiadorys Municipality Square

Organised by the Lithuanian Consumer Alliance and Kaišiadorys Municipality



Kaišiadorys residents had the opportunity to meet not only the neighbours of the house at Gedimino St. 30, but also



Vytenis Tomkus
Mayor



Darius Vilimas
Deputy Mayor



Giedrė Pavasarytė
Elder of Kaišiadorys city



Ramūnas Gatautis
Lithuanian Energy
Institute expert



Eglė Kybartienė,
President of
Lithuanian
Consumers
Alliance



Kęstutis Kupšys,
Vice-president of
Lithuanian
Consumers
Alliance

The event was hosted by the performer Giedrius Leškevičius



During a live meeting with the Mayor and Vice Mayor of Kaišiadorys, it was agreed to meet specifically on the **establishment of a Resource Centre in Kaišiadorys Municipality**



Impact of ComAct project in Lithuania

Kaišiadorys

- A building in Kaišiadorys will be renovated after the community had a conflict with a business unit within the building. There are many such conflicts in Lithuania, because in the early 1990s, many people took advantage of the opportunity to set up commercial premises in ground-floor apartments. They are now treated as commercial premises, and it is hard to reach consent with them on renovation
- This case would be a successful example for other communities experiencing similar conflicts

Tauragė

- This will be the final apartment block renovation to be carried out, as this apartment block is the last one to be renovated in the whole block
 - Tauragė will have a beautiful example of a complete block renovation to inspire other municipalities
-

Estimated impact of ComAct project

- **Main impact indicators:**
 - primary energy savings triggered by the project
 - reduction of greenhouse gases (GHG) emissions
 - investments in sustainable energy
 - involvement of at least 10.000 consumers
 - **Current risks:**
 - The war in Ukraine is posing a high risk of inability to reach the intended impact especially in the Ukrainian pilot however as well as in other pilot countries, as the war has influence on the whole region of Europe and even further.
 - The uncertainty of the future in all the pilot countries and the rising of energy prices all over Europe is posing even higher risk to the energy poor consumers.
-

Estimated impact of ComAct project

Involvement of at least 10,000 consumers (not available yet):

- **Short-term impacts Total of 3,320 consumers, based on:**

• Hungary	2 MFABs	with direct benefit of 600 residents
• Bulgaria	10 MFABs	with direct benefit of 1,000 residents
• North Macedonia	4 MFABs	with direct benefit of 720 residents
• Lithuania	2 MFABs	with direct benefit of 220 residents
• Ukraine	5 MFABs	with direct benefit of 780 residents
- **Long-Term impacts Total of 15.13 GWh/year, based on (5 years after end of project):**

• Hungary:	20 MFABs	with direct benefit of 3,000 to 10,619 residents
• Bulgaria:	20 MFABs	with direct benefit of 2,000 to 1,264 residents
• North Macedonia:	10 MFABs	with direct benefit of 1,800 to 3,696 residents
• Lithuania:	20 MFABs	with direct benefit of 2,000 to 20,607 residents
• Ukraine:	25 MFABs	with direct benefit of 3,900 to 8,286 residents

Lessons learned

- **Dedicated department on energy/energy efficiency in a municipality** is a great help; e.g. Karpos Municipality in North Macedonia
 - **Renovations are a great visibility** for a municipality/mayor/politicians
 - HO/HOAs are motivated to do the renovation when there is a **subsidy component from the municipality or state**
 - **HOAs must overcome different internal conflicts** before they reach an agreement to renovate
 - **Active communication with the HO/HOAs:** be as specific and detailed as possible, and fast when providing information. Communicate on different topics related to energy efficiency, e.g. EnEffect materials on importance of Energy Audit and how to understand its results
-

Policy recommendations

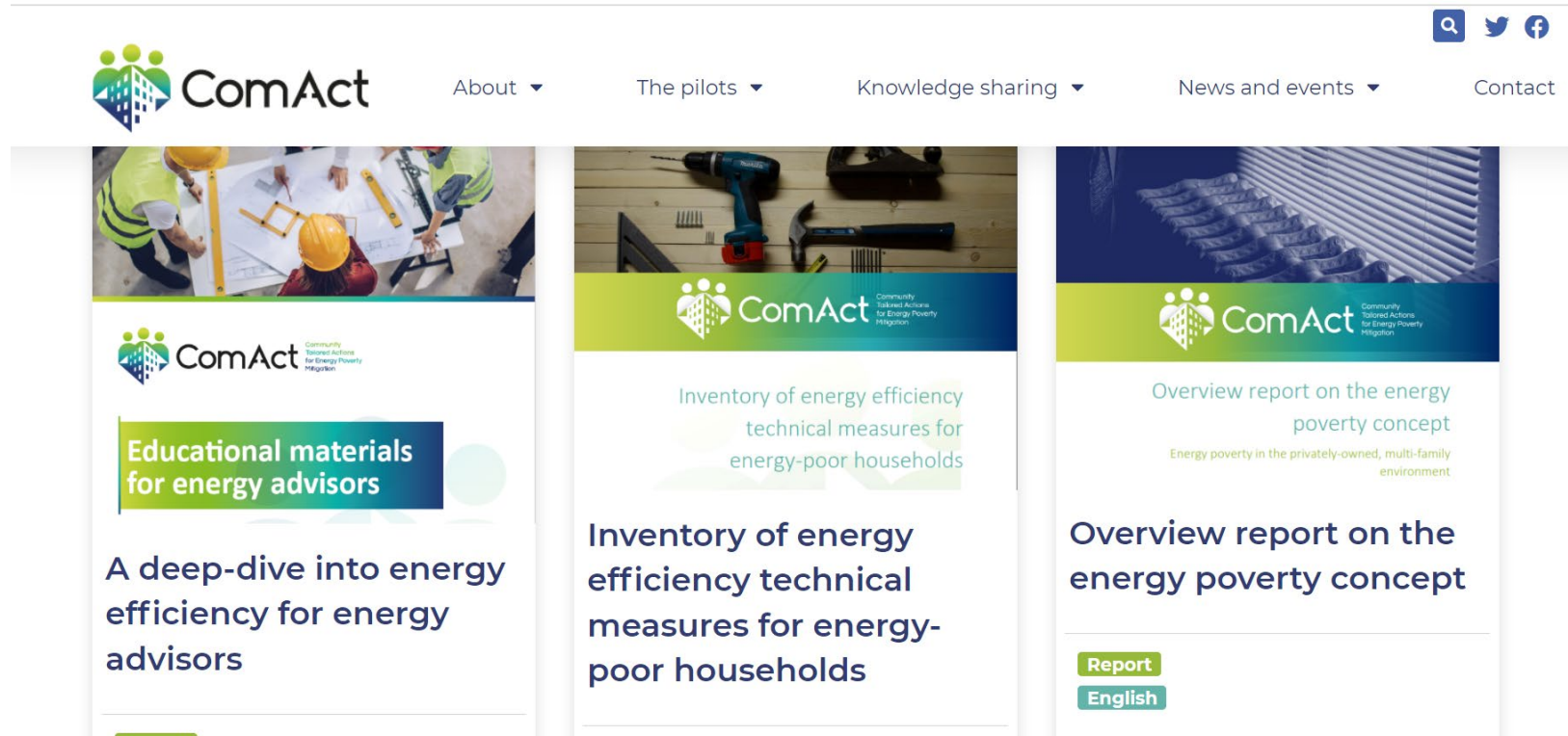
- Recognize the **owner-occupied MABs** as a special form of social housing in Central and Eastern Europe
 - Combine **energy policy and social policy**
 - Identify the issue of **alleviating energy poverty** as one of the focus areas in shaping national building renovation goals
 - Support renovations by **mixed financing models** (subsidies + loans) to make this predictable and sustainable long-term
 - Create an enabling **regulatory environment for banks** to be able to scale up renovation loans for HOAs
 - Strengthen the **capacity of local governments** so that they can provide complex technical assistance for HOAs
-

Policy recommendations

- National and local governments should conduct massive **awareness raising campaigns** targeting HOAs to promote energy efficiency measures in owner occupied MABs
 - Provide **technical assistance for HOAs** including social facilitation
 - **One-stop-shops** targeting owner occupiers of MABs should provide complex technical assistance including social facilitation. This service should be provided by independent experts and paid by national or local government subsidies to ensure scaling up renovation of these buildings in a sustainable way
-

Newest resources

www.comact-project.eu



The screenshot shows the ComAct website interface. At the top right, there are search and social media icons. The navigation menu includes: About, The pilots, Knowledge sharing, News and events, and Contact. Below the navigation are three resource cards:

- Card 1:** Features an image of two workers in safety vests and hard hats looking at blueprints. The title is "Educational materials for energy advisors". The description is "A deep-dive into energy efficiency for energy advisors".
- Card 2:** Features an image of various power tools on a wooden surface. The title is "Inventory of energy efficiency technical measures for energy-poor households".
- Card 3:** Features an image of a window with blinds. The title is "Overview report on the energy poverty concept". The subtitle is "Energy poverty in the privately-owned, multi-family environment". There are buttons for "Report" and "English".



Local Energy Action

ENERGY Awards 2022 Finalists





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Thank you

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Zita Kakalejckova zkakalejckova@habitat.org



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