

# EU Energy Poverty Advisory Hub

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# In a nutshell

The leading EU initiative run by the European Commission at the request of the European Parliament, is a **collaborative network** of stakeholders aiming to eradicate energy poverty and accelerate the just energy transition of European local governments.

**Mission** To become the central platform of energy poverty expertise in Europe.

Website [energy-poverty.ec.europa.eu](https://energy-poverty.ec.europa.eu) Helpdesk @ [info@energypoverty.eu](mailto:info@energypoverty.eu)

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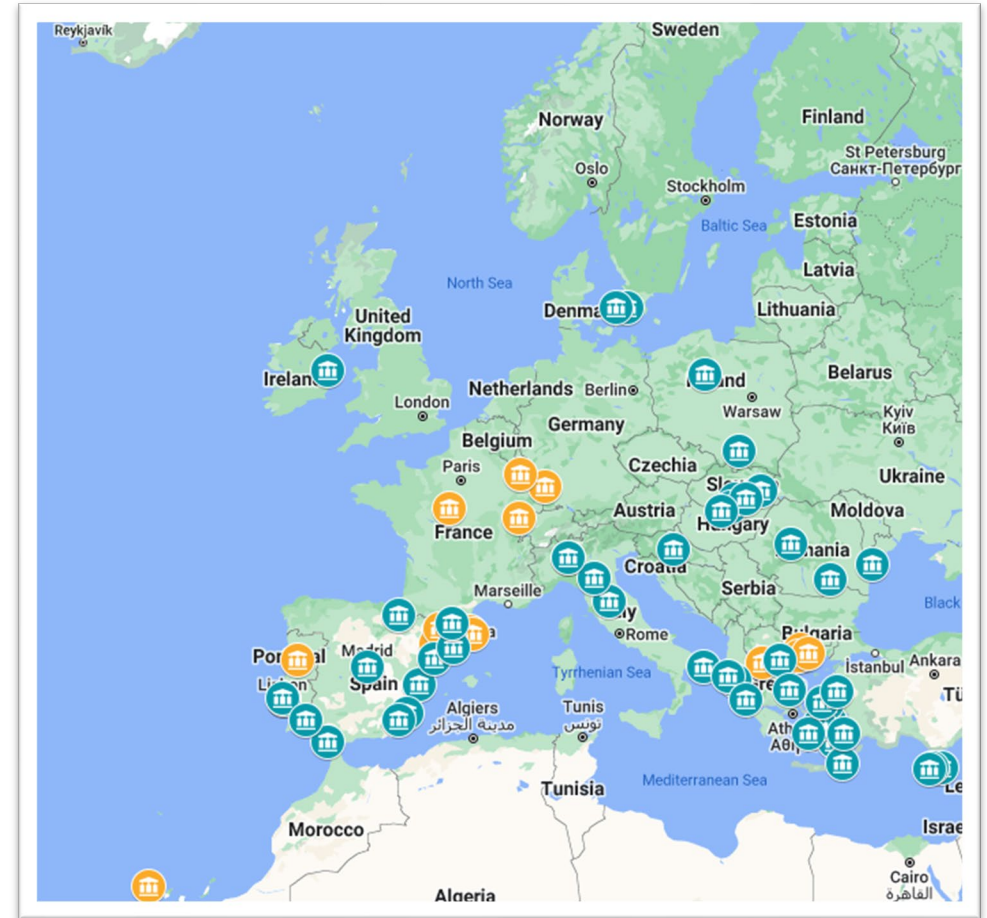


# Technical support

## Tailored support to 85 municipalities

- **13 EU countries:** CYPRUS | CROATIA | DENMARK | FRANCE | GREECE | HUNGARY | IRELAND | ITALY | PORTUGAL | POLAND | ROMANIA | SPAIN | SWEDEN
- **(Some of the) TOPICS ADDRESSED:** Energy poverty diagnosis | energy equity | renewable energy communities | one-stop-shops, rural areas | elders | information and awareness | deep renovations
- **(Some types of) ACTIVITIES DEVELOPED:** capacity building | skills development | surveys and questionnaires | data analyses | awareness campaigns | events and tools | stakeholder mapping | methodological development | roadmaps etc.

All municipalities on the [EPAH website](#).



# Skills development

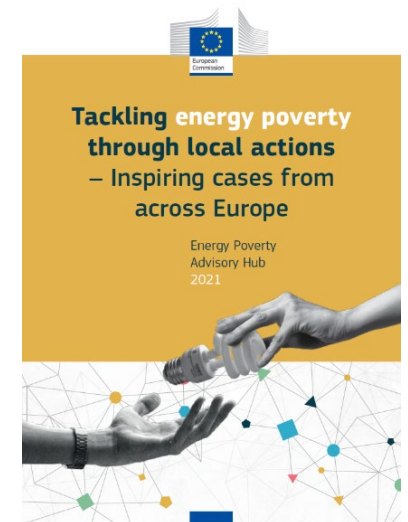
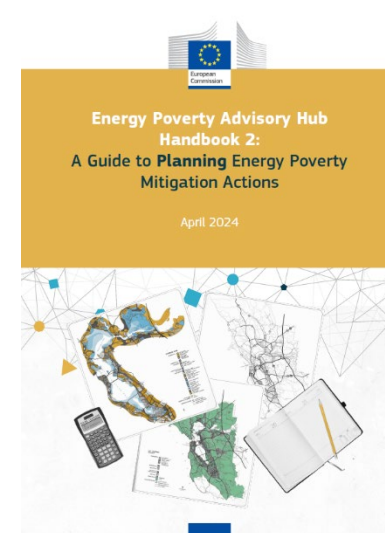
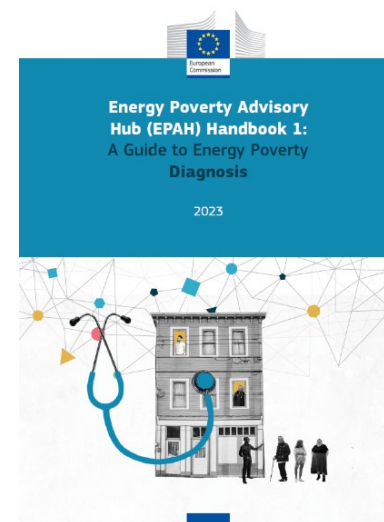
## Capacity building

### ONLINE COURSES & VIDEOS


- **3 free open online courses** developed suitable for all levels of knowledge
- Self-paced
- Include presentations from experts, interviews with practitioners and interactive activities
- Monthly **interviews** with practitioners sharing experiences and practices

[elearning.energypoverty.eu](https://elearning.energypoverty.eu)


### PUBLICATIONS




Browse by topics




Climate



Facilities/housing



Mobility



Socio-economic aspects

Clear selection

View data: by indicator by country

Browse data by indicator: Inability to keep hom

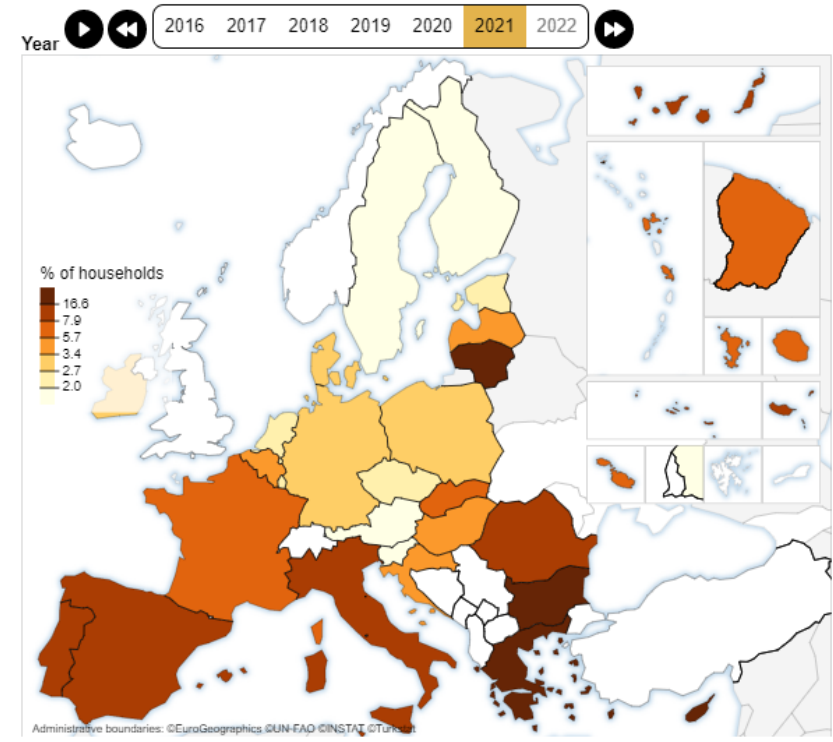
Data source: EUROSTAT Househ

Disaggregate data by: No disaggregation

## Inability to keep home adequately warm

No disaggregation - Country average

The inability to keep home adequately warm indicator represents the share of (sub-) population /households not able to keep their home adequately warm, based on the question "Can your household afford to keep its home adequately warm?".



Unit % of households OR % of population

Source [EU-SILC](#) and [JRC](#)

Last update 2021

Download  
 Dataset: [CSV](#) / [EXCEL](#)  
 Map: [PNG](#)  
 Map, graph and info: [PDF](#)

Compare countries

Select an item

**Bear in mind**  
 This indicator refers to an individual's perception of 'adequately' which may differ from one country to another or between age-groups, etc. The indicator only refers to the warmth and does not cover summer energy poverty. The indicator does not provide information on the causes for the inability; hence it should be analyzed together with other indicators, such as energy expenditures, for identifying potential causes. [Learn more](#)

# Research results: the national indicators database

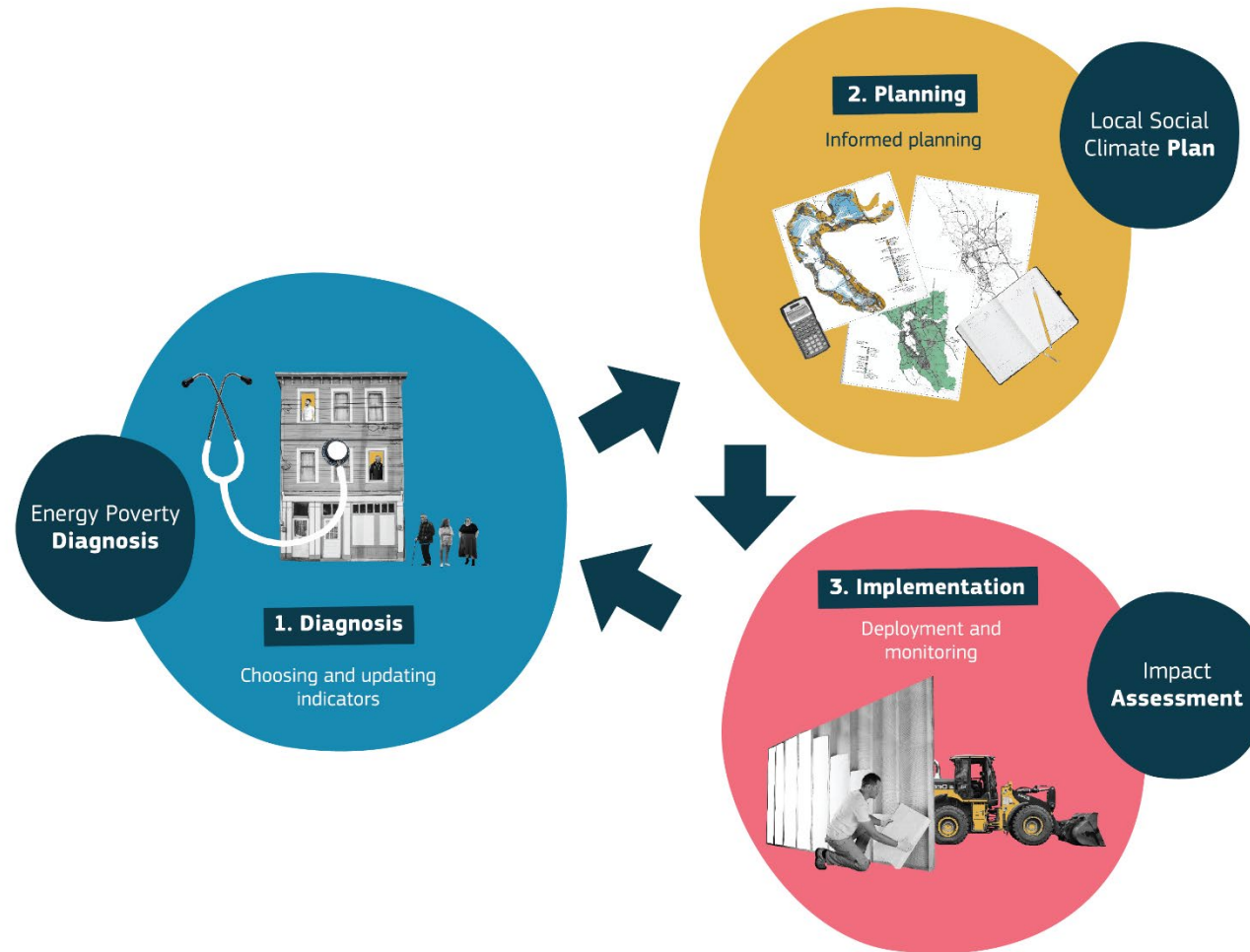
- Classified into **four primary topics** aligned with the guidelines of the Covenant of Mayors on energy poverty indicators at the local level (CoM, 2022)
- **29 indicators**
- **Data source:** EU-wide datasets (EUROSTAT, EU-SILC, JRC)
- **Analysis of the indicator** including their definition, constraints, practical applications with examples, and insightful analysis of their significance.

# Community - Network engagement

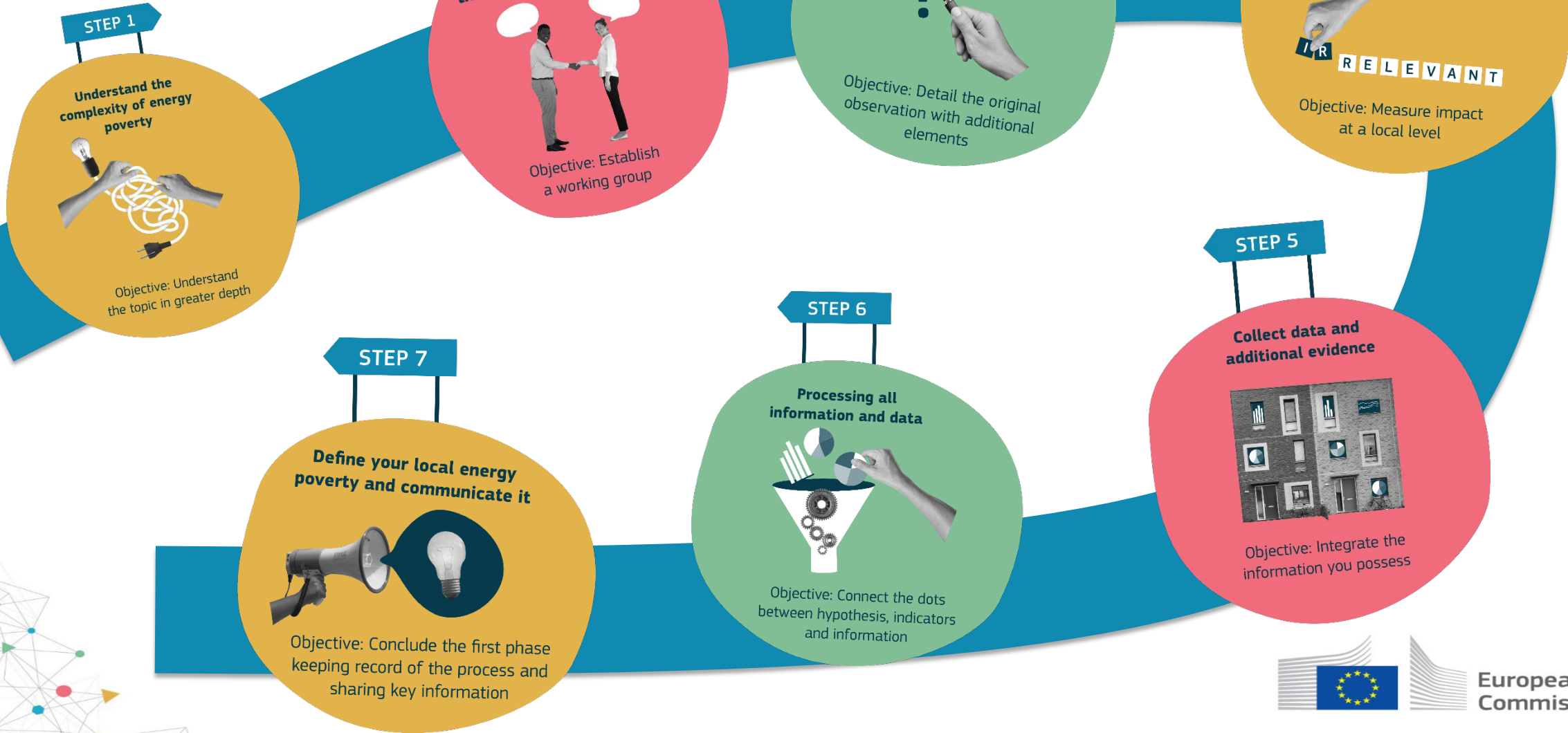
- International conferences – onsite
- National events in 11 countries
- Lunch talks and webinars (monthly)



# Methodology



# Diagnosis





# Diagnosis – Red flags & hypothesis

Observation Based on Alert Signals	Questions on the Observation	Several hypotheses are developed to answer these questions, based on the practical experience of the various stakeholders	
We think there may be energy poverty in that neighbourhood because we received various alert signals	Why? What specifically are the alert signals? What may be the causes (climate, economic, social)?		
Hypothesis	Framing Questions	Supporting Information	Robustness of the Hypothesis
We think there may be energy poverty in X neighbourhood due to the poor quality of dwellings	What are the problems with the dwellings (roof insulation, poor windows, old building, old heating system etc.)? Why are they not refurbished?	Yes: status of dwellings (from housing department), a survey from CSOs	High
We think there may be energy poverty in X neighbourhood because the buildings are not connected to district heating	What energy sources are they using? What is the energy mix?	Partially: Information on the lack of district heating. No data or information on the energy mix	Medium → if you can collect additional data Low → if you cannot collect additional information to investigate missing parts
We think there may be energy poverty in X neighbourhood due to low energy literacy	What is the social-economic status of those people living in the neighbourhood? What determines poor energy literacy?	Data showing opposing elements A survey confirms a sufficient level of energy literacy	Not validated → needs to be reviewed and reformulated




## Diagnosis – Red flags & hypothesis


**What are your red flag  
and hypothesis?**





# Diagnosis – Indicators

**Browse by topics**

 Climate

 Facilities/housing

 Mobility




 Socio-economic aspects

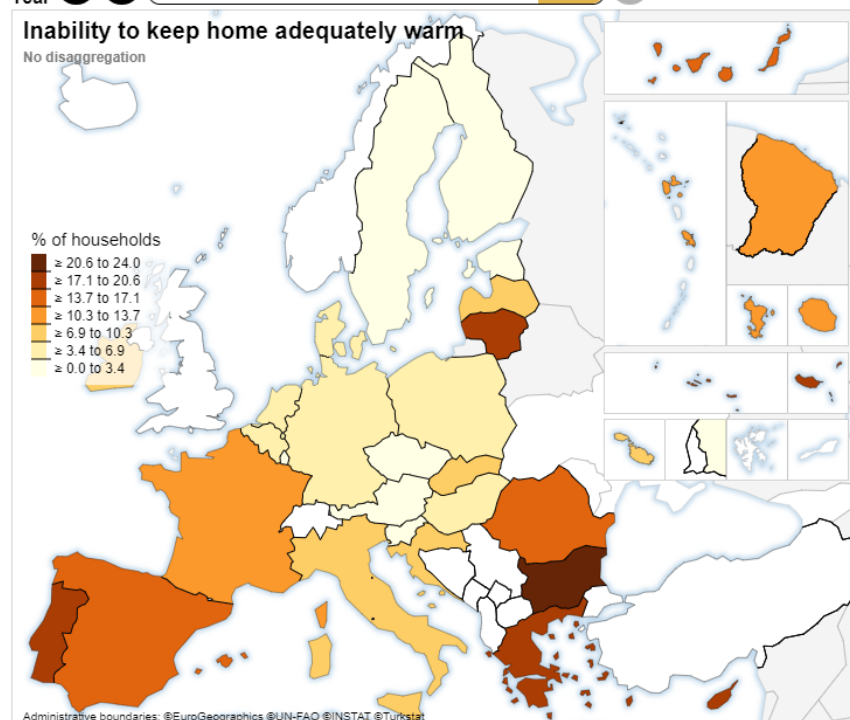
[Clear selection](#)

## Inability to keep home adequately warm

### No disaggregation

The “inability to keep home adequately warm” indicator represents the share of (sub-) population/households not able to keep their home adequately warm, based on the question “Can your household afford to keep its home adequately warm?”.

Year   2016 2017 2018 2019 2020 2021 2022 



Unit % of households

Source [EU-SILC](#) and [JRC](#)

Last update 2022

Download  
Dataset: [CSV](#) / [EXCEL](#)  
Map: [PNG](#)  
Map, graph and info: [PDF](#)

Compare countries

Select an item 

### Bear in mind

*This indicator refers to an individual's perception of 'adequately', which may differ from one country to another or between age groups, etc. The indicator only refers to the warmth and does not cover summer energy poverty. The indicator does not provide information on the causes for the inability; hence, it should be analyzed together with other indicators, such as energy expenditures, to identify potential causes.*

[Learn more](#)

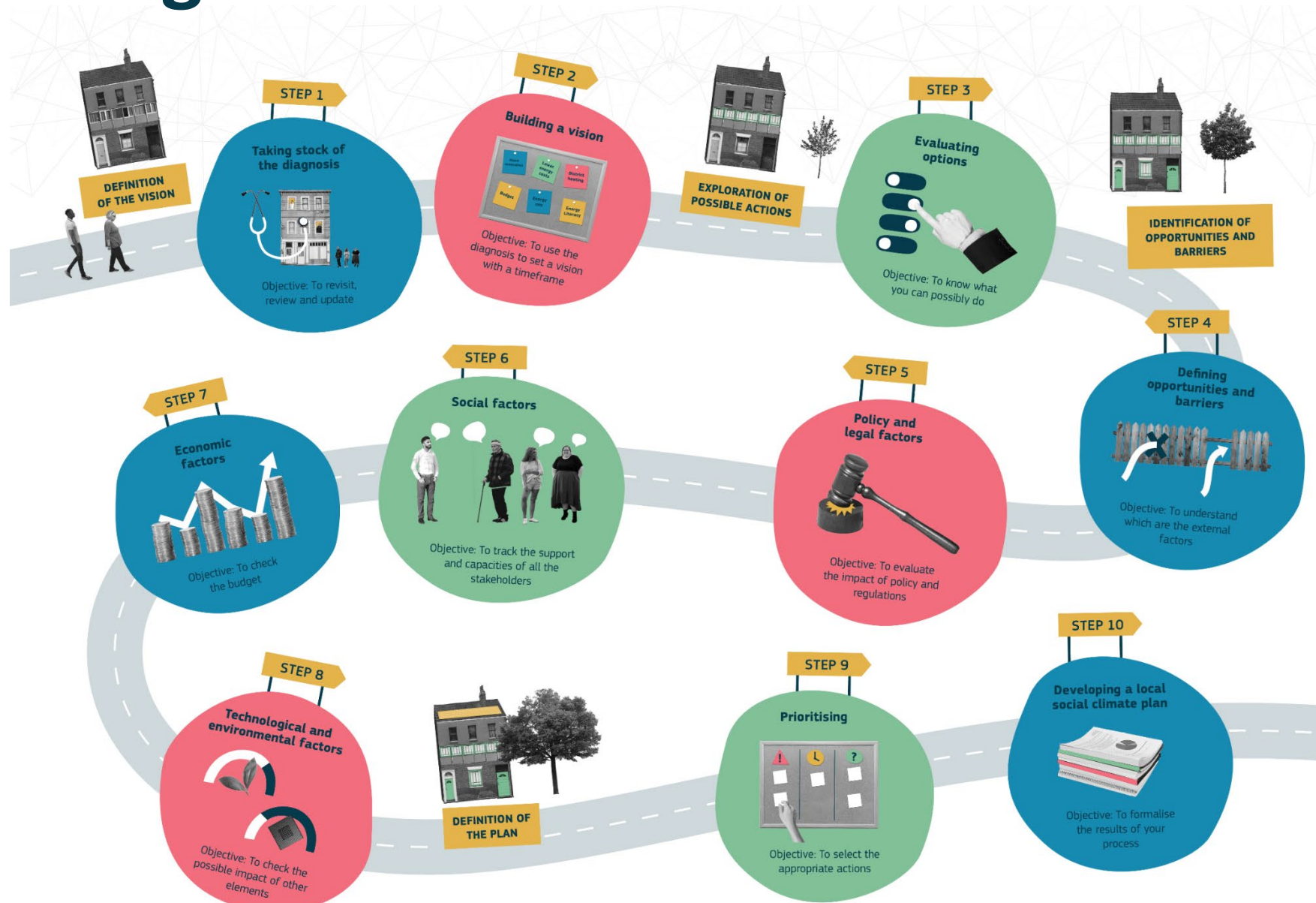
# LINK

# Diagnosis – Red flags & hypothesis

# Which indicators can you monitor?

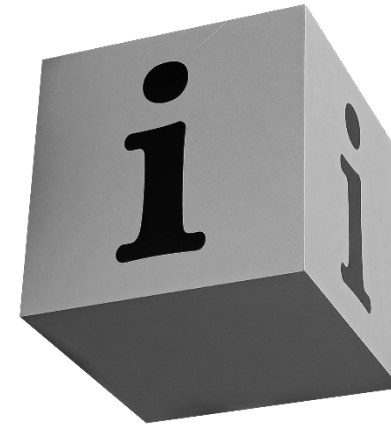
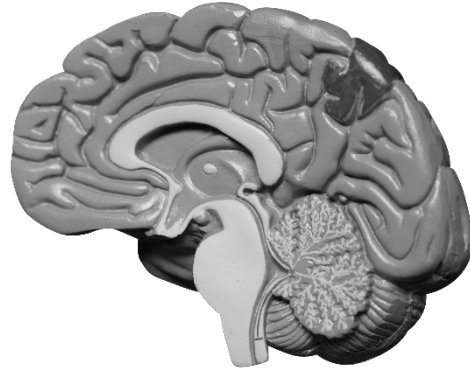


# Planning

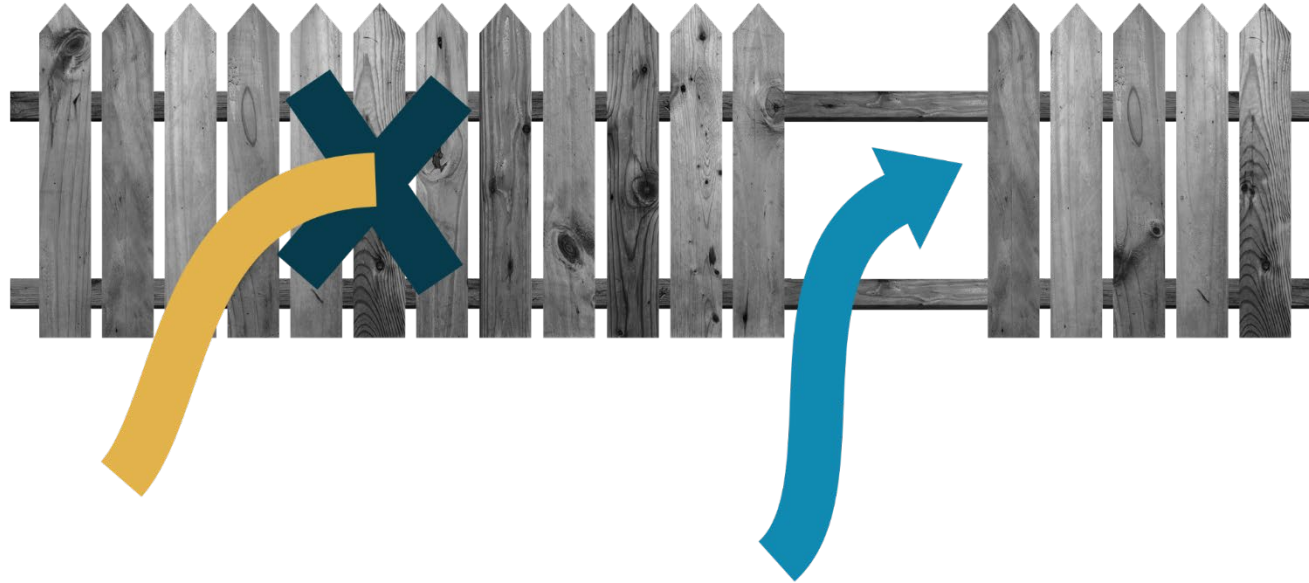


# Planning – Evaluating options

- Behavioural change
- Awareness campaign
- One Stop Shops
- Energy Communities
- Home renovation and energy efficiency improvement
- Financial measures

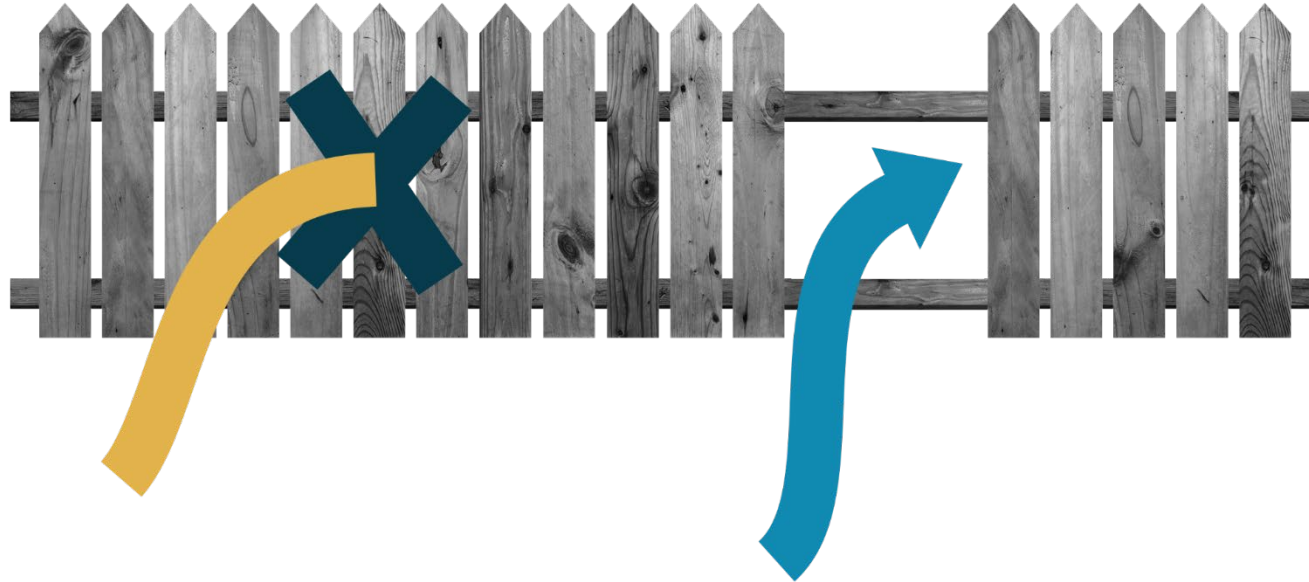


# Planning – Opportunities and Barriers



POLITICAL	ECONOMIC	SOCIAL	TECHNOLOGICAL	LEGAL	ENVIRONMENTAL
Political agenda	Inflation	Aging population	New on-line system	Legislation on tenants' rights	Increase in temperatures

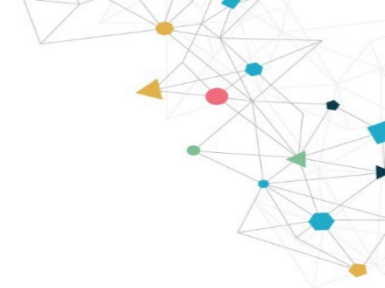
# Planning – Opportunities and Barriers



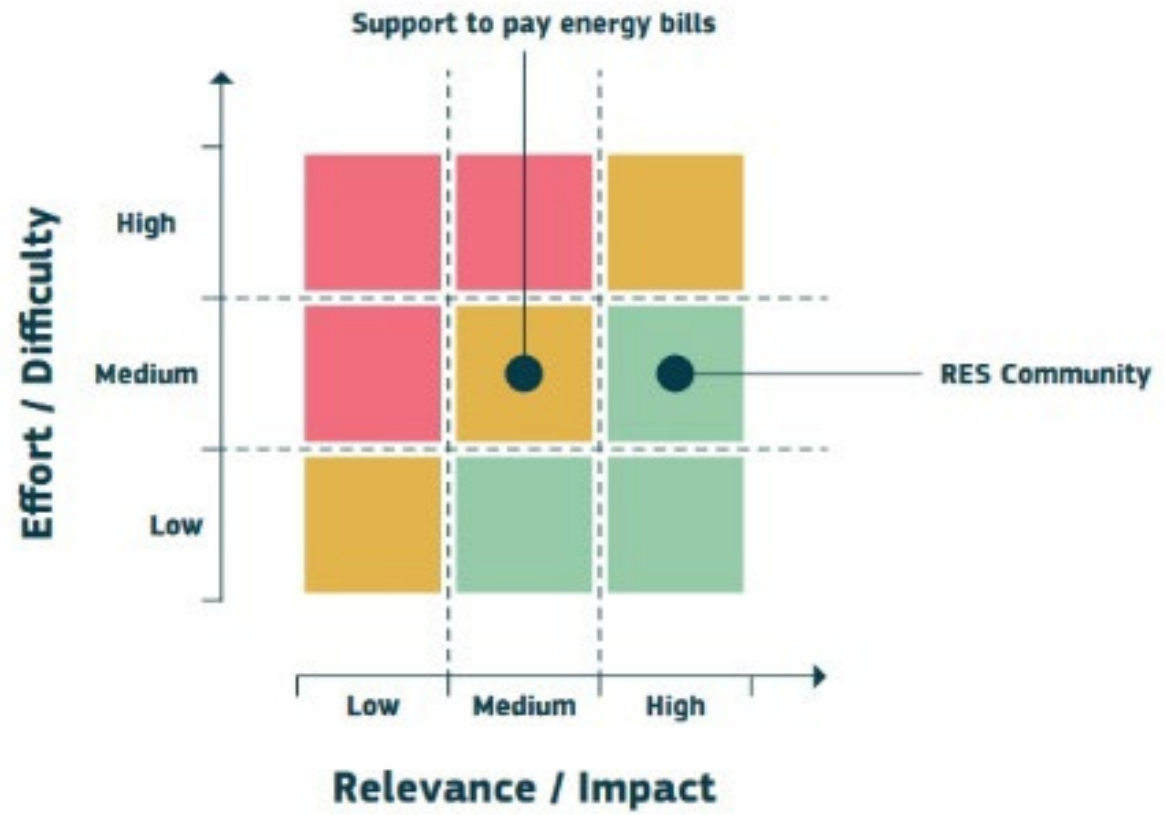
**Which opportunities and barriers come into your mind?**



# Planning – Prioritizing



RELEVANCE/IMPACT			EFFORT/DIFFICULTIES		
Low	Medium	High	Low	Medium	High



# Planning – Prioritizing



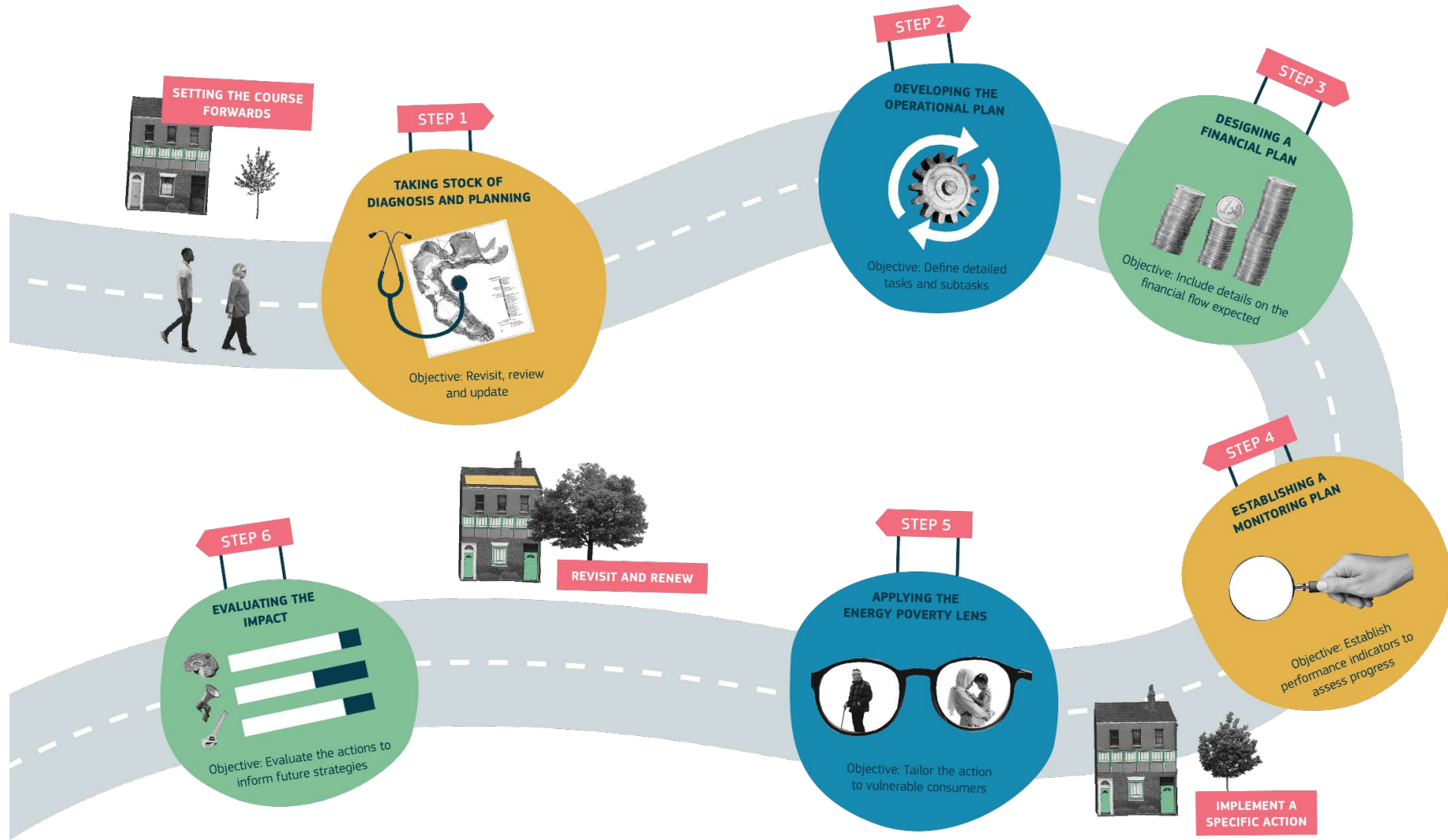
**Which actions will you  
prioritize?**

# Planning – The final set of actions

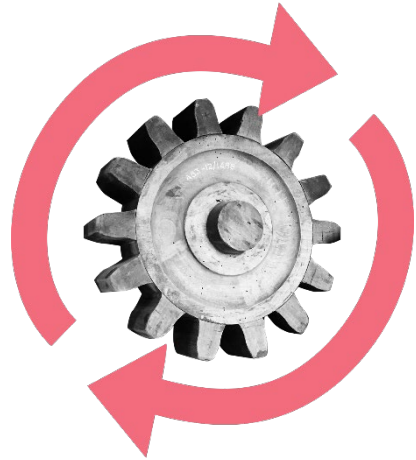


Phase	Question	Time
DIAGNOSIS – Definition	What is the situation?	Now
PLANNING – Vision	What do we want to achieve?	Future
PLANNING – How	How do we estimate how we can achieve it?	From now until the set time
PLANNING - Who	Who will be responsible for the activities?	
PLANNING - When	When will the action be developed?	
PLANNING – How much?	How much will the activity cost?	
PLANNING - Impact	Which main indicator do we expect to address?	

# Implementation



# Implementation – Operational, financial and monitoring plans



Main task	Subtask	Potential expenditures	Type of expenditure	Expected time of expenditure	Risk
Preparatory construction and installation of PV	Draft terms of reference of the procurement	Legal advice Publication of tender on local/national newspapers	CAPEX	DD/MM/YY	No bidders, so expenditure needed to happen again to promote the tender better or to review the terms of reference
	Evaluation of bids	Payment of external evaluation and notary service	CAPEX	DD/MM/YY	No suitable bids, so expenditure needed to happen again for a second evaluation
	Kick off the work – launch meeting	Cost of organisation of the public launch	CAPEX	DD/MM/YY	

OVERALL LEADING OBJECTIVES AND INDICATORS									
<b>Overall Action</b>		Access to incentives for renovation for vulnerable consumers							
<b>Energy Poverty Indicators affected</b>		Percentage of persons/ households spending up to XX% of their income on energy services	F+G+H band (EPC) dwelling/total number of dwellings	Persons aged over 65 in energy poverty	% of people that declare that the process for accessing support services is complicated				
OPERATIONAL MONITORING TABLE									
Tasks and Subtasks	Performance indicators	Data collection method	Responsible	Which overall indicator will affect	Time frame	Base level	Target level	Resource needed	Feedback and adjustment
Identification of the target beneficiaries	Number of people selected	Questionnaire and interview	Social Services	Person aged over 65 in energy poverty	Early stage of implementation			15 surveyors x 10 days	Long process; evaluate an indirect selection through focus groups and meetings

# Implementation – Energy Poverty Lens



## BEHAVIOURAL CHANGE

- Trust and empathy
- Behavioural triggers
- Decision-making biases



## AWARENESS RAISING

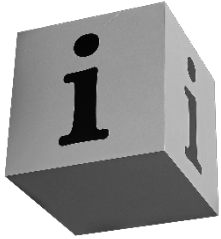
- Who?
- Timeline
- Who is running the campaign
- Language and tone

EXAMPLE: Awareness raising in kindergartens in energy poor neighborhoods

NUDGE	DESCRIPTION	NOTE
Reminding of consequences	Prompt users to consider the consequences of their actions, such as increasing thermostat temperatures or the air conditioning, by highlighting the extra costs incurred, projected monthly or annually.	Vulnerable consumers may be already tense and extremely conscious about their expenditure and self-limiting themselves, jeopardising their wellbeing. Such an intervention may not produce the effect desired and affect their health condition.
Feedback & awareness	Use direct feedback, such as smart meters or mobile apps, and indirect feedback, like usage reports, to help consumers understand their energy consumption. Comparisons with similar households can motivate conservation and encourage behavioural change.	Knowing the consumption of different tools may help them improve their condition. However, the risk is the same as mentioned above. Moreover, comparisons with similar households should be treated carefully in order to avoid giving the feeling of pointing the finger at someone.

EXAMPLE: Vulnerable consumers in social housing

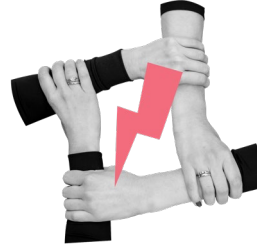
# Implementation – Energy Poverty Lens



## ONE STOP SHOP

- Format
- Type of service
- Human resources available
- Collect information

EXAMPLE: Transition point NEXT2U



## ENERGY COMMUNITIES

- Engaging the community
- Defining the legal structure and governance
- Service definition
- Financial and operational model
- Evaluation

EXAMPLE: Telhairas Renewable Energy Community

# Implementation – Energy Poverty Lens



HOME RENOVATION

- Ownership of the building  
(homeowners, tenants) -> split incentive
- Energy audit
- Motivation
- Legal component
- Temporary accommodation

EXAMPLE: Urban regeneration programme of Barcelona



INCENTIVE REGULATION AND FINANCIAL MEASURES

- High risk borrowers
- Source of capital
- Type of financing schemes

FINANCING INSTRUMENT	ADVANTAGES	DISADVANTAGES
Non-repayable funds	These instruments are a good option for vulnerable consumers as they don't need to be repaid, thereby avoiding an additional financial burden. It's important to ensure that these instruments are available for a sufficient period and offer continuity. They can be prioritised during extreme situations, for example during extreme weather events.	These instruments often provide only partial coverage, requiring consumers to pay the remaining costs, which can be a limitation. Additionally, some programmes have complex and time-consuming application processes with multiple steps, creating barriers for vulnerable consumers. Furthermore, tax-related mechanisms may not be applicable to vulnerable consumers. Well-defined selection criteria must be in place so that the non-repayable funds are not misallocated.
Debt financing	These instruments are flexible and can be designed with special conditions for vulnerable consumers (for example, with longer repayment periods or lower monthly payments).	They require repayments, which can be a limitation. Additionally, some mechanisms are based on the amount of energy saved, which may not benefit or be applicable to vulnerable consumers whose energy consumption is already low. Increasing debt is often seen as a risky move by vulnerable households.
Equity financing	These are usually community-based and, therefore, may not involve traditional financing organisations, making them potentially more accessible and less bureaucratic than conventional schemes.	They may lack a sufficient budget to reach all the vulnerable population and to ensure continuity. Some interventions are not profitable and there is often no equity to distribute.

EXAMPLE: Dampoort Renovates



European Commission

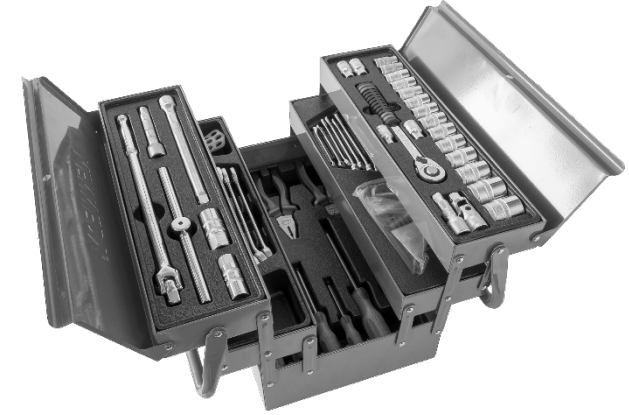


# Implementation – Energy Poverty Lens



## OTHER TYPE OF ACTIONS

- Inclusion of the social aspect
- Adaptation
- Artificial intelligence
- Capacity building and vocation training



**GIVE A SENSE OF OWNERSHIP**  
**IMAGINE YOURSELF IN THE POSITION**  
**USE THE ACTION TO COLLECT ADDITIONAL INFORMATION**

# Implementation – Renew the cycle

## IMPACT EVALUATION



- Relevance
- Effectiveness
- Efficiency
- Broader consequences
- Coverage
- Coordination
- Connectedness
- Coherence
- Sustainability
- Scale up or replicate

## NEW START



*We wish that tackling energy poverty was a sprint, but we have to acknowledge that, more often, it is a marathon*

# Useful inspiration

## Grand Chambord & Beauce Val-de-Loire, France



### RESULTS

2nd technical assistance of the Energy Poverty Advisory Hub 2023-2024

The goal was to **improve the visibility of the public service 'Maison de l'Habitat'** and address energy poverty through stronger partner mobilisation and coordination.

#### Objectives

The technical assistance aimed to increase the visibility and efficiency of the Maison de l'Habitat in addressing building renovation and energy poverty. After a first phase of diagnosis, due to limited human resources, the **strategic goal turned to strengthening coordination among existing partners** to maximise available resources.

#### Activities & Outcomes

A launch meeting was held to define objectives and set the work plan. **Interviews and on-site visits** followed to assess the needs of stakeholders and **gather insights into housing conditions**. Key outcomes included recommendations on governance, visibility, and dedicated energy poverty policies for social housing tenants.

#### Challenge

The primary challenge identified was the **limited human resources** of Maison de l'Habitat.

#### Future

Future steps are centred around developing the Maison de l'Habitat as a **central "umbrella brand" for the public service**, enabling stronger collaboration among partners, and reinforcing human resources.

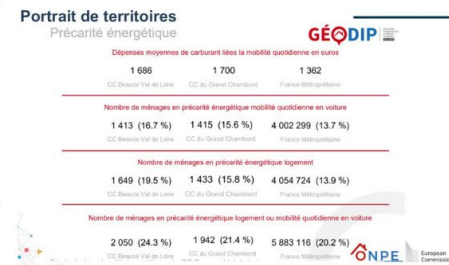
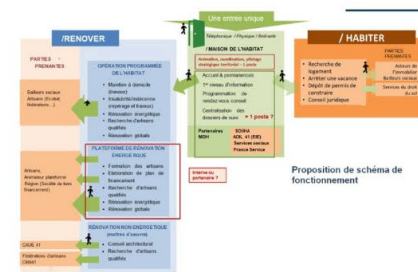
The TA confirmed the Maison de l'Habitat's good standing but highlighted the need for more human resources.



September 2023 - June 2024

**Energy poverty phase:** Diagnosis

**Topics:** Energy poverty diagnosis; knowledge transfer and awareness raising



- Join forces with other municipalities
- Plan internal resources accordingly
- Rely on the local stakeholders



# Useful inspiration

## Bükkszentkereszt Hungary



### RESULTS

2nd technical assistance of the Energy Poverty Advisory Hub 2023-2024

Bükkszentkereszt, a small settlement in the Bükk Mountains, faces significant energy poverty challenges. Most homes rely on firewood for heating due to a lack of natural gas infrastructure. A 2021 survey revealed outdated heating practices, low energy efficiency, high PM10 emissions, exacerbated by the use of wet firewood resulting to poor air quality and high energy costs for over a quarter of the population.

#### Objectives

The strategic objectives were:

- through action days and community planning, to start thinking together to **improve air quality** moving away from unhealthy wood burning.
- identify and study the feasibility of different **alternative technologies** to serve the area in a cost-effective, less polluting way.

#### Activities & Outcomes

The experts involved the community with the organisation of public consultation. Specific **energy days** were organised at schools. An **on-line consultation** was designed to collect additional feedback. Meanwhile, the experts visited different factories exploring the **feasibility and cost effectiveness of different technologies**. The final concept focus on the development of an **energy courtyard** that aim to move away from unhealthy wood burning practice. Identifying the most viable solutions required compromise and adapting the original goals to ensure the community's full support and effective adoption of the new technology.

#### Future

The new energy courtyard concept is a comprehensive collection of tailored solutions for more affordable and cleaner wood heating. The proposal was publicly discussed and received positive feedback from the community. The municipality is eager to raise funds for its implementation.

Small villages typically lack their own energy strategies or plans. The work conducted under the EPAH project has been a crucial catalyst for collective reflection on the future of energy use in the village.



DISCOVER EPAH



September 2023 - June 2024



**Energy poverty phase:**  
Implementation



**Topics:** Transition from wood burning, health

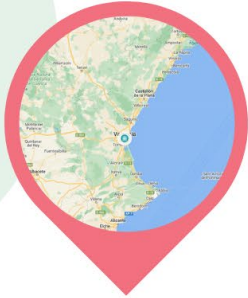


- Step by step to embrace beneficiaries need
- Develop concrete feasibility study
- Involve the community



# Useful inspiration

## Valencia Spain



### RESULTS

2nd technical assistance-  
Energy Poverty Advisory Hub  
2023-2024

The Valencia municipality, in partnership with Caritas Diocesana de València and AEIOLuz Coop, focused on addressing summer energy poverty by training local actors. This project aimed to **build the capacity of energy agents and municipal staff** to tackle energy poverty and implement strategies to reduce heat vulnerability in the city.

#### Objectives

The main objective was to address the growing issue of summer energy poverty in Valencia by building the capacity of local actors. This included training energy agents who work directly with vulnerable households, as well as municipal technicians responsible for urban planning and climate adaptation. **By focusing on capacity building, the project sought to empower local actors** to implement long-term solutions that reduce vulnerability to extreme heat, particularly in low-income areas.

#### Activities & Outcomes

Activities included two distinct training itineraries for energy agents and municipal technicians. Each group attended both theoretical and practical sessions, covering summer energy poverty, microclimate and cooling/adaptation solutions. In total, **23 hours of training were conducted**, resulting in increased awareness and practical skills among 30 stakeholders. The final output included a **set of recommendations to incorporate summer energy poverty into Valencia's local policies**.

#### Challenge

Ensuring collaboration across various departments within the municipality to tackle this cross-cutting issue proved challenging.

#### Future

Valencia plans to **integrate summer energy poverty considerations into its local climate plans**, including the Climate City Contract and SECAP.

Valencia is provided with key tools to combat summer energy poverty by training 30 local stakeholders.

EU  
Energy Poverty  
Advisory Hub

DISCOVER EPAH



September 2023 - February 2024



**Energy poverty phase:**  
Implementation



**Topics:** Summer energy poverty;  
Capacity building;



- Not only heating
- Understand your local scenario
- Explore the multiple sides of energy consumption



# Useful inspiration

## Eordaia and Grevena Greece



### RESULTS

2nd technical assistance of the Energy Poverty Advisory Hub 2023-2024

The Municipalities of Eordaia and Grevena are located in Western Macedonia, a Just Transition Region. Both of them faced significant changes due to the energy and economic crisis, which led to rising unemployment and income reductions. The persistently harsh weather conditions during the fall and winter have also led to a significant increase in heating costs for residents.

#### Objectives

- The strategic objectives were:
- To accurately **identify** energy poverty.
  - To **measure** the socio-economic impacts
  - To **guide** local governments in formulating effective **policies**.
  - To support with **educative** activities, mainly for students.
  - Raising **awareness**.

#### Activities & Outcomes

The assessment highlighted **severe energy poverty**, with many households struggling to maintain comfortable indoor temperatures, the high age of the buildings, the limited use of insulation and financial constraints. High energy costs, coupled with economic challenges like unemployment, further exacerbate the issue. The lack of **awareness** about Energy Performance Certificates (EPCs) underscores the need for education.

**Stakeholder engagement** and training were key in raising awareness and building capacity, with **policy recommendations** and awareness events to support vulnerable groups.

#### Future

Municipal efforts should focus on altering the heating and cooling systems, facing energy illiteracy, and offering targeted financial support via the just transition mechanism in the pathway toward climate neutrality.

Phasing out coal is essential for achieving the EU's climate objectives. However, activities to reduce coal production need to be implemented jointly with social and structural policy measures and funding. The technical assistance helped develop a clear picture in the severely affected areas.



#### DISCOVER EPAH



September 2023 - June 2024

Energy poverty phase: Diagnosis

Topics: Coal Region in transition



Table 9: Western Macedonia – Pearson Correlation of Main Energy poverty indicators

	7.2 Income 2022	8.6 Educational level	7.9 Social Tariff	7.6 Arrears in utility bills	2.3 Inability to keep home adequately warm	1.9 Energy efficiency
7.2 Income 2022	1	,066	-,105	,038	,074	,053
8.6 Educational level	,066	1	-,097	-,109	,040	-,019
7.9 Social Tariff	-,105	-,097	1	,002	-,240**	-,097
7.6 Arrears in utility bills	,038	-,109	,002	1	,049	,006
2.3 Inability to keep home adequately warm	,074	,040	-,240**	,049	1	,180**
1.9 Energy efficiency	,053	-,019	-,097	,006	,180**	1

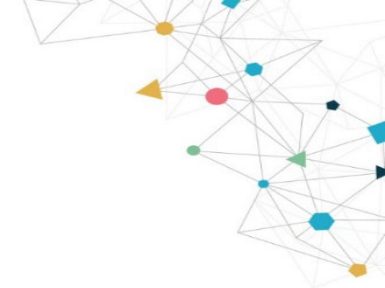
\*\* Correlation is significant at the 0.01 level (2-tailed).



- Measure the impact
- Guide the decision of effective policies
- Educate the audience



# Profile



**Table 1:** Example of a persona

SINGLE PARENT			
<p><b>Single parent with low income and one or more children still dependent. There is the tendency to prioritise the wellbeing of the children. To engage them, particular attention needs to be paid to introducing a system for entertaining the children and one which fits in with working hours/school timetables etc.</b></p>			
Neighbourhood	Area X		
Preferred type of contact	<ul style="list-style-type: none"> <li>▶ Email ✓</li> <li>▶ Phone</li> <li>▶ Website</li> </ul>		
Dwelling description	<p><b>Ownership</b></p> <ul style="list-style-type: none"> <li>▶ Rented flat or beneficiaries of social housing.</li> </ul>	<p><b>Energy Performance Certificates</b></p> <ul style="list-style-type: none"> <li>▶ Rented flat with low rent; EPC often F or G rating.</li> <li>▶ Old appliances with high consumption.</li> </ul>	<p><b>Energy measures</b></p> <ul style="list-style-type: none"> <li>▶ To reduce energy consumption, displays self-limiting behaviour and frequents external spaces (public urban areas) with the children to keep them warm/cool.</li> </ul>
Priorities	Higher priorities are connected with the wellbeing of the children as regards health, food and education.		
Needs	<ul style="list-style-type: none"> <li>▶ Fast and effective support</li> <li>▶ Slim and easily accessible measures (not much time to allocate)</li> </ul>		
Key stakeholders	<ul style="list-style-type: none"> <li>▶ Teachers</li> <li>▶ Doctors and healthcare practitioners</li> <li>▶ Social Services</li> </ul>		
Timeframe	May need immediate support but with a tendency to also evaluate for the longer term and to assess future benefits.		
Community engagement	Active in the community, especially when connected to activities with other parents and for the benefit of the children.		
Places for engagement	<ul style="list-style-type: none"> <li>▶ Park</li> <li>▶ School</li> <li>▶ Health centre</li> </ul>		

# Define an example of persona and think how you can help them?

# Connect with us

Website [energy-poverty.ec.europa.eu](https://energy-poverty.ec.europa.eu)

Helpdesk @ [info@energypoverity.eu](mailto:info@energypoverity.eu)

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