



D5.2 Upscaling and Replication Strategies

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DE SÜRDÜRÜLEBİLİR ENERJİ VE İNŞAAT SANAYİ TİCARET LİMİTED SİRKETİ (DEM)

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WP5 – Policy recommendations, scale-up & transferability

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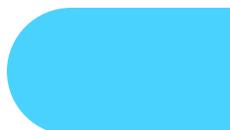
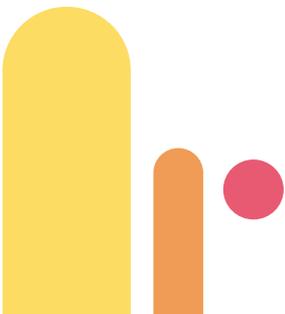




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List of acronyms

- EDM – Edirne Municipality
- EP – Energy Poverty
- H2020 – Horizon 2020
- JPOIC – JELGAVAS PASVALDIBAS OPERATIVAS INFORMACIJAS CENTRS
- KPI – Key Performance Indicator
- LCC – Leeds City Council
- LNV - Fundacion de la Comunitat Valenciana Para la Promocion Estrategica El Desarrollo Y la Innovacion Urbana
- N/A – Not Applicable
- OBM – Obuda Municipality
- UHC – Urban Health Custer
- VCE – Fundacio de la Comunitat Valencianaobservatori Valencia del Canvi Climatic
- WP – Work Package
- WSC – Wellbased Solution Catalogue
- ZDA – Zero Discrimination Association



Executive Summary

The primary goal of WELLBASED is to design, implement, and assess an innovative urban program rooted in the social ecological model, aimed at significantly reducing energy poverty and its impact on citizens' health and well-being. Deliverable 5.2, within the H2020 project, seeks to support the broader adoption and scaling of successful urban health and well-being interventions across multiple cities. This task focuses on identifying key actions from pilot cities, documenting the barriers and facilitators encountered during both the design and implementation stages, and developing strategies for replicating these actions in other urban contexts.

The process begins with a city diagnosis, which includes identifying project-level indicators and analyzing the urban health programs of the pilot cities. The purpose of the city diagnosis is for identifying the city needs, priorities to draw a picture on the state of play. This is followed by a detailed barrier and facilitator analysis during the design phase. A Solution Catalogue is then developed, compiling the successful actions from the pilot cities and organizing them in a structured format. Feedback from workshops with the pilot cities ensures that the catalogue is refined and tailored for future use. A deeper analysis is then conducted during the implementation stage to identify challenges and enablers encountered in practice, both within the pilot cities and across the broader Urban Health Cluster (UHC) framework.

The deliverable concludes with the development of replication and upscaling strategies. Workshops with UHC projects and a final replication webinar are organized to facilitate knowledge and experience sharing, foster collaboration, and disseminate findings. Ultimately, this task contributes to improving urban health by providing actionable insights and strategies that can be adopted and scaled across diverse urban environments.

The findings and outputs of this deliverable are intended to directly contribute to the work of policymakers and other stakeholders involved in urban health and well-being initiatives. By documenting key actions, barriers, and enablers from pilot cities and providing detailed replication strategies, the project offers valuable insights for those responsible for shaping policies and strategies aimed at reducing energy poverty and improving public health. Furthermore, the developed Solution Catalogue serves as a practical tool for cities seeking to replicate successful interventions, enabling policymakers to make informed decisions based on evidence from real-world implementations. Through active engagement with pilot cities and the broader Urban Health Cluster, this task fosters cross-city collaboration and knowledge and experience exchange, thereby enhancing the capacity of cities to scale up effective health interventions.

Deliverable Keywords

Replication, Upscaling, Solution Catalogue, Energy Poverty, Public Health.



1. Introduction

1.1. Deliverable objective and scope

Deliverable 5.2 presents the replication and upscaling strategies to improve urban health and well-being. The objective of this deliverable within the H2020 project is to support the widespread adoption and scaling of effective actions designed to improve urban health and well-being across various cities. The scope includes the development of a Solution Catalogue, which organizes and compiles the actions identified by the pilot cities within their urban programs. These actions are categorized into distinct layers based on their content, with detailed information collected on the barriers and facilitators encountered during both the planning and implementation phases. Additionally, the deliverable seeks to gather recommendations for other pilot cities intending to implement similar actions, thereby facilitating the replication process. This approach aims to enhance the effectiveness and efficiency of urban health interventions, while promoting knowledge exchange and best practices among participating cities to improve overall urban well-being.

1.2. Deliverable methodology

The methodology for this deliverable is organized into several key phases, each focusing on specific aspects of the process to ensure effective replication and scaling of urban health and well-being interventions. These phases are as follows:

1. City Diagnosis

- **Analysis of WELLBASED Programs:** An in-depth analysis of the pilot cities' urban programs is conducted to understand the scope, objectives, and outcomes of the actions implemented. This analysis helps to identify the strengths, weaknesses, and specific health and well-being challenges addressed by each pilot.
- **Barrier & Facilitator Analysis at the Design Stage:** A thorough assessment is carried out to identify the barriers and facilitators faced by pilot cities during the design phase of the urban programs. This includes factors such as policy challenges, stakeholder engagement, financial constraints, and available resources, providing insights into the key factors that influence the planning and early-stage development of the interventions.

2. Development of the Solution Catalogue: Technical

- **Design of the Solution Catalogue:** A Solution Catalogue is created to consolidate the actions implemented by the pilot cities. The catalogue is organized according to specific layers, reflecting the different components of each action. This structured catalog serves as a repository of best practices, tools, and strategies that can be adapted by other cities.
- **Workshop with Pilots:** A workshop is conducted with the pilot cities to discuss the structure, content, and key elements of the Solution Catalogue. The purpose of the workshop is to gather input from the pilot cities, ensuring the catalogue accurately reflects the interventions implemented and provides valuable insights for future replication.



- **Re-design of the Solution Catalogue with Feedback from the Workshop:** After collecting feedback during the workshop, the Solution Catalogue is revised and refined. This iterative process ensures that the catalogue remains comprehensive, relevant, and adaptable to the specific needs of different cities.

3. Barrier & Facilitator Analysis at Implementation / Operation Stage

- **Matrix of Barriers and Facilitators within WELLBASED Pilots:** A detailed matrix is developed to capture the barriers and facilitators encountered by the pilot cities during the implementation and operational stages of their urban programs. This matrix highlights the challenges and enablers that influence the successful delivery and sustainability of the interventions.
- **Matrix of Barriers and Facilitators within UHC:** A similar matrix is developed to assess the barriers and facilitators within the Urban Health Cluster (UHC) framework. By comparing these matrices, insights are gained into how broader health policies and systems impact the implementation of urban health interventions, providing a more comprehensive view of the challenges at both the local and national levels.

4. Replication & Upscaling Strategies

- **Workshop with UHC Projects:** A workshop is organized with UHC projects to discuss the findings from the barrier and facilitator analysis, share experiences, and explore strategies for replicating and scaling successful interventions. This collaborative session aims to align the urban health initiatives with UHC priorities, fostering greater integration and synergy across health systems.
- **Final Replication Event (Webinar):** A final webinar is held to present the outcomes of the replication and upscaling process, sharing lessons learned, best practices, and recommendations with a broader audience. This event serves as a platform for knowledge exchange, ensuring that the insights gained from the pilot cities and UHC projects are disseminated to other cities and stakeholders, promoting the scaling of successful urban health and well-being initiatives.

Through these structured steps, this deliverable task ensures a comprehensive approach to identifying, developing, and sharing solutions that can be replicated across cities, ultimately contributing to the improvement of urban health and well-being on a larger scale.

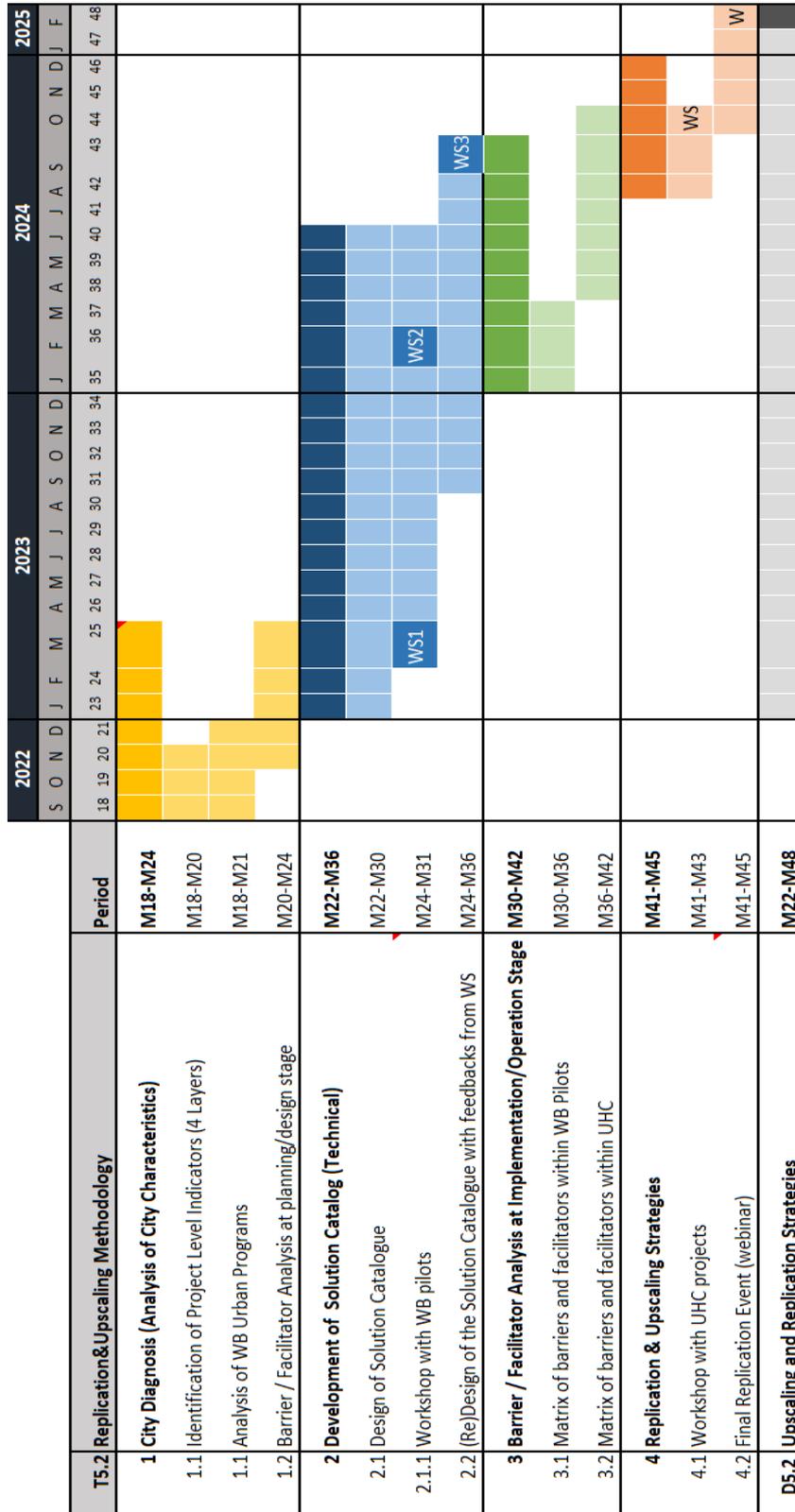


Figure 1. Gantt Chart of D5.2 Replication and Upscaling Strategies



1.3. Relation to other WPs and deliverables

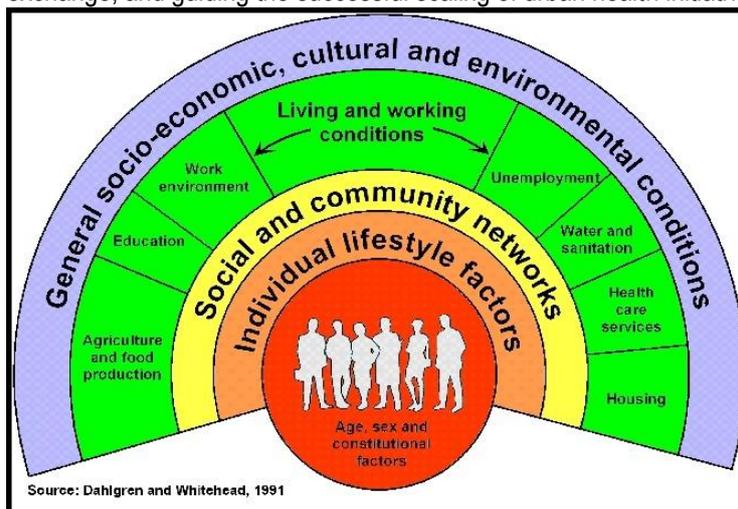
The "Upscaling and Replication" task is closely aligned with several work packages (WPs) and deliverables within the Horizon project. Specifically, it connects with WP3, WP4, and WP6, as outlined below:

- **WP3: Pilots preparation & implementation**
 - **D3.1 (Implementation plan for each pilot site):** The task builds upon the implementation plans outlined in D3.1, using these as a basis to analyze and document the actions taken in each pilot city for replication and scaling.
 - **D3.4 (Final report on the implementation of the urban health programme):** Insights from the final implementation reports (D3.4) will be integrated into the Solution Catalogue, identifying barriers, facilitators, and key outcomes to inform replication strategies.
- **WP4: Evaluation & data analysis**
 - **D4.3 (Final pilot sites analysis report):** The task will leverage the findings from D4.3 to identify and assess common challenges and success factors across the pilot cities, ensuring that replication strategies are based on rigorous analysis.
- **WP5: Policy recommendations, scale-up & transferability**
 - **D5.5 (Policy Recommendations):** The recommendations derived from the "Upscaling and Replication" task will feed into the policy recommendations in D5.5 (and in the policy brief about guidelines for interventions), particularly those related to scaling urban health interventions and addressing barriers to implementation.
- **WP6: Dissemination, Communication, City engagement and exploitation**
 - **D6.2 (Dissemination and Communication Plan):** The task aligns with D6.2 by contributing to the communication of best practices and successful replication strategies through workshops, webinars, and dissemination events.
 - **D6.3 (WELLBASED exploitation strategy):** The insights gathered from the upscaling and replication process will support the development of the exploitation strategy in D6.3, ensuring that the project's results are effectively disseminated and utilized across other cities and stakeholders.

2. Solution Catalogue for Replication and Upscaling

2.1. Design of Solution Catalogue

The design of the Solution Catalogue involves the creation of a comprehensive and structured repository that consolidates the actions and interventions implemented across the pilot cities to improve urban health and well-being. The catalogue organizes these actions into distinct layers based on their content, ensuring clarity and facilitating ease of use for future replication efforts. Each action is documented with detailed information, including its objectives, methodologies, outcomes, and the challenges encountered during implementation. Additionally, the catalogue incorporates an analysis of the barriers and facilitators identified during both the design and implementation phases, providing valuable insights for cities intending to replicate similar interventions. The design process includes feedback from pilot cities through workshops, ensuring that the catalogue is refined to meet the practical needs of other cities and stakeholders. Ultimately, the Solution Catalogue functions as a key resource for sharing best practices, supporting knowledge exchange, and guiding the successful scaling of urban health initiatives.



In the context of Task 5.2 Upscaling & Replication, Wellbased Solution Catalogue aims to provide a detailed understanding of the challenges pilots might encounter before implementing the implementation (at planning/design stage) and the barriers they face during the execution of actions. The goal is for the proposed solutions to offer guidance to other pilots involved in

or considering similar projects when implementing their actions.

The actions are categorized within the 4 Layers specified in the Social-Ecological Model of Social Determinants of Health. The layers are outlined below:

- Layer 1: Individual Lifestyle Factors
- Layer 2: Social and Community networks
- Layer 3: Living and working conditions

- Layer 4: General socio-economic, cultural and environmental conditions

Workshops for the development of the Solution Catalogue content were held during the periodic meetings in Heerlen in March 2023, in Edirne in February 2024, and in Leeds in September 2024. Additionally, an

online Solution Catalogue workshop was conducted with Urban Health Cluster pilot cities on October 22nd, 2024 to collect and understand their barriers during design and implementation stages.



Figure 3. Heerlen Workshop with all WELLBASED pilots for Task 5.2



The project meeting in Heerlen included a workshop where participants were divided into three groups. The goal was to gather information on the political, economic, social, cultural, technical, environmental, and legal barriers and facilitators related to the actions implemented in the pilot cities. For more comprehensive information on the interventions, objectives, methodologies, results, and implementation challenges of pilot cities, please refer to the D3.4 Final Report on the Implementation of the Urban Programme.

2.2. Solution Catalogue

This section provides information on the general content of the Solution Catalogue based on the data collected from the pilots of the WELLBASED and Urban Health Cluster projects. In the WELLBASED project, data was gathered from 6 pilot cities and 1 follower city, while the content of the Solution Catalogue was developed based on the information collected from 4 pilot cities within the Urban Health Cluster.

2.2.1. WELLBASED Pilot Cities

In the following section, the solution catalogue is described for each of the six WELLBASED pilot cities and one follower city. For each action of pilot urban programs, barriers and facilitators have been identified to understand the challenges and enablers encountered during implementation phase. Subsequently, workshops were organized to gather input from other pilot cities, offering recommendations for similar actions, evaluating the expected impact of these interventions, and providing further guidance for effective replication. The resulting catalogue serves as a comprehensive resource for replicating these actions in other cities, ensuring that best practices and lessons learned from each pilot are shared and adapted to different urban contexts.

2.2.1.1. Edirne Pilot

The Solution Catalogue for Edirne includes several key actions aimed at addressing energy poverty and improving urban health. These actions include conducting socio-energy audits, building improvements, providing training on energy efficiency and air quality improvement in participants' homes, offering training to energy-vulnerable individuals, providing collective advice to local NGOs representing vulnerable groups, and delivering policy recommendations to governance bodies on energy poverty.

Table 1. Action WSC-E1: Socio-energy audits / Energy efficiency toolkit

WSC1.1-E1	SOLUTION CATALOGUE
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS
	PROJECT NAME WELLBASED
Pilot City	Edirne
Country	Türkiye
Action	Socio-energy audits



Plan	The first step for individual interventions, after the recruitment process, is to perform a socio-energy audit to assess the participant's home energy situation related to energy use, consumption, appliances, etc., outlining all the specifics. This will help the participant to identify where his/her home is losing energy and what steps he/she can take to improve energy efficiency.	
Subactions	SA1.	25 houses in the intervention group will be inspected
	SA2.	Monitoring the change in energy consumption on invoices
	SA3.	Measurement of heat loss with thermal camera
	SA3.	Analysing the results
Stakeholders Involved	Edirne Municipality (EDM), Zero Discrimination Association (ZDA) and Demir Enerji (DEM)	
Period	6 Months	
Budget & Investments	Budget for heating devices (sun and fuel boiler, radiators, piping, cabling, led lamp, etc.) is 45,000 euros from project budget. Insulations and energy efficiency work budget is from Municipality of Edirne.	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of socio-energy audits (80%)
Risks & Mitigation Measures	Risk 1.	Participants do not understand the technical advice.
	Mitigation Measures 1.	Simple language will be used. Questions and feedback will be asked often to check that it has been understood.
	Risk 2.	Failure to recruit participants in a way that interferes with goal attainment
	Mitigation Measures 2.	In addition to the necessary preparatory work, the project partners will ensure participation and cooperation through strategic partnerships and agreements with other stakeholders. Communication plan is developed considering the characteristics (literacy rates, habits, etc) of the potential participants in the pilot. Accordingly, risk of insufficient recruitment will be reduced.
	Risk 3.	Difficulties in using the control group
	Mitigation Measures 3.	During the assignment of the study participants to the Intervention and Control Groups in the presence of a notary public, substitutes will be determined for both groups. Using of public notary for randomization will ensure transparency in assignment to control group and promote feeling of just outcome. Substitutes will be surveyed instead of the control group participant who left. Whether or not the backup survey data is usable will be decided according to the results of the statistical analysis.
	Risk 1.	There may be problems or delays in the preparation of planned activities in one or more pilot regions.
	Mitigation Measures 1.	<ul style="list-style-type: none"> - Clarifying requirements early in the authorization process (e.g. ethical approvals) - Disclosure of ethical elements and early obtaining of relevant authorizations - Creation of early application environments for pilots (e.g. trials with minor changes)
Barriers	Social	Do not want to tell value, do not permit, difficult to meet people



	Cultural	difficult to meet people
	Technical	Some of the houses cannot be repaired, less sample size
	Legal	ownership of land and building
Facilitators	Technical	Point of intervention can be seen
Solution 1.		
Suggestion	Energy audits should be planned according to the suitability of the household.	
Expected Impacts	According to energy audits, leaks, energy losses, etc. in the house were detected.	
Stakeholders	Municipality	
Potential for Replication	High	

Table 2. Action WSC-E2: Training on energy efficiency and air quality improvement in participants' homes / Training to energy vulnerable people

WSC2.1-E2	SOLUTION CATALOGUE	
	LAYER 2 SOCIAL AND COMMUNITY NETWORKS	
	PROJECT NAME WELLBASED	
Pilot City	Edirne	
Country	Türkiye	
Action	Training on energy efficiency and air quality improvement in participants' homes	
Plan	Training on home energy efficiency and air quality improvement will be provided.	
Subaction	SA1.	Announcement to the participants about the training
	SA2.	Providing training on the importance of energy efficiency and air quality
Stakeholders Involved	Edirne Municipality, Zero Discrimination Association, Demir Enerji and Thrace Roma Education Research and Culture Development Association	
Period	From April 2023	
Budget & Investments	In case of a budget needed, it will be provided by the municipality.	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Trainings on energy efficiency and air quality (Min. 2)
	KPI 2.	Total number of attendees (Min. 100 and at least, one per household)
	KPI 3.	Providing preliminary information to the participants about the project and training (Min. 1)



Risks & Mitigation Measures	Risk 1.	Inability to find a suitable date for training in the places belonging to the municipality
	Mitigation Measures 1.	Planning ahead with the relevant departments at the municipality.
	Risk 2.	Lack of understanding of the training by the participants.
	Mitigation Measures 2.	If any problems are encountered during the implementation, first of all, Turkish project partners will be contacted. If needed, we will discuss possible solutions within TNO monitoring process and the WELLBASED project coordinator will be contacted
Barriers	Economic	Less energy bill
	Social	Less self confidence
Facilitators	Technical	Learning new things, learning how to use
Solution 1.		
Suggestion	Training must be carried out by professionals. Their interest should be kept high with examples that concern the household.	
Expected Impacts	With the training provided, they are expected to achieve more energy efficiency in their homes.	
Stakeholders	Municipality, professionals	
Potential for Replication	Medium	

Table 3. Action WSC-E3: Building improvements

WSC 3.1-E3	SOLUTION CATALOGUE	
	LAYER 3 LIVING AND WORKING CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Edirne	
Country	Türkiye	
Action	Building improvements	
Plan	In order to increase energy efficiency of the intervention houses, insulation of the exterior facades will be made and leakages in the roofs or open spaces in the windowsill will be repaired.	
Subaction	SA1.	Renovation (Efficiency Improvement) and Heating system projects for the 25+ houses will be prepared
	SA2.	Approvals of the drafted projects will be finalised (Material lists will be consolidated)
	SA3.	Tender for renovation and heating system projects
	SA4.	Renovation and Heating System installation works for the 25+ houses



	SA5.	Informing the participants in the intervention group correctly for the follow-up of the home conditions parameters to be made
Stakeholders Involved	Edirne Municipality, Roma Youth Association Türkiye, Edirne Yıldırım and Solidarity Association, Thrace Roma Education Research and Culture Development Association	
Period	M20-M30	
Budget & Investments	The improvement budget of the buildings is from the Edirne Municipality budget; solar energy, heating etc. will be covered from the project budget	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Houses improved (Min 80%)
	KPI 2.	Regular informal meetings (Min. 4)
Risks & Mitigation Measures	Risk 1.	Participants find the repairs insufficient
	Mitigation Measures 1.	The participants will witness the process of energy audits, drafting of renovations plan and the renovations themselves (taking appropriate precautions for safety). They will be involved in every step. At each step technical information will be provided both as to why those renovations are being realized in the way that is and the benefits of the way that these repairs. Transparency of the process as well as involvement of participants through constant information will decrease likelihood of dissatisfaction.
Barriers	Cultural	language of technician and household must be similar
	Technical	Insulation affects heating sys. calculation, complexity of projects, two different tenders must be synchronized, house become dirty during montage
Solution 1.		
Suggestion	Procedures, mechanical projects, etc. must be fully prepared for building improvements.	
Expected Impacts	Building improvements repairs are expected.	
Stakeholders	Municipality, NGOs	
Potential for Replication	High	

Table 4. Action WSC-E4: Policy recommendations to the governance on energy poverty / Recommendations for policymakers

WSC4.1-E4	SOLUTION CATALOGUE
	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS



	PROJECT NAME WELLBASED	
Pilot Name	Edirne	
Country	Türkiye	
Action	Policy recommendations to the governance on energy poverty	
Plan	Policy recommendations to reduce energy poverty will be drafted. The process will be participatory. Apart from the technical staff, experts and urban alliance members, participants/target groups themselves will be involved in formulating policy recommendations.	
Subaction	SA1.	Identifying local strategies to combat energy poverty
	SA2.	Focus group meeting/workshops with relevant stakeholders on energy poverty in Edirne (NGOs etc. as well as study participants)
	SA3.	Discussing and deciding on policies to reduce energy poverty in Edirne
	SA3.	Communicating policy recommendations for energy poverty reduction to policy makers
Stakeholders Involved	Edirne Municipality, Edirne Medical Chamber, Demir Enerji and Zero Discrimination Association	
Period	M30-M40	
Budget & Investments	No budget has been foreseen in the project, except for travel fees (to Edirne) for the assistance of experts to the meetings (in Edirne) – we foresee the support of a Senior Energy Policy Expert working at Demir Enerji Consulting (DEM, Istanbul).	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Organizing internal meetings for policy proposals on energy poverty (Min. 4)
Risks & Mitigation Measures	Risk 1.	Failure to propose action.
	Mitigation Measures 1.	The process will involve all interested parties, especially the participants themselves and experts in the field. Involvement of these part.
	Risk 2.	Lack of experience in policy creation
	Mitigation Measures 2.	The senior energy policy specialist in the project team will guide the process. Cooperation with consortium partners will also mitigate this risk
Barriers	Political	2023 and 2024 are years of election
	Cultural	Language of visitor and participant must be similar, level of education
	Technical	Low experience of policymaker
Facilitators	Technical	NGOs and academics working on energy poverty



Solution 1.	
Suggestion	Conducting workshops with experts in the field for policy development and considering effective ways to convey to decision makers
Expected Impacts	Preparation and presentation of a roadmap to policy makers for reducing energy poverty
Stakeholders	Academicians, Municipality, NGOs
Potential for Replication	Medium

2.2.1.2. Heerlen Pilot

The Solution Catalogue for Heerlen includes several key actions aimed at addressing energy poverty and improving urban health. These actions include the actions undertaken by Heerlen municipality inside and outside WELLBASED project: energy efficiency training and advice, debt support, training professionals on energy poverty, organizing open talks and community meetings for the intervention group, distributing energy boxes, offering the Digital Parkstad energy app, and collaborating with housing corporations.

Table 5. Action WSC1.2-H1: Energy efficiency trainings and advice

WSC1.2-H1	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Heerlen	
Country	Netherlands	
Action	Energy efficiency trainings and advice	
Plan	<p>Inhabitants (people suffering from energy poverty) can benefit from energy efficiency trainings and advice. This can be provided on different levels.</p> <ul style="list-style-type: none"> - How to use your home more efficient? - What can you do to save on energy costs - Where can you go when you have questions and challenges (roadmap/ information sheet) <p>The one stop shop provides and educates the energy coaches. Energy coaches will do a private home visit once to provide advice to inhabitants, if needed they can provide two sessions on energy advice and training and do another home visit.</p>	
Subaction	SA1.	Develop integrated tailor-made teaching material.
	SA2.	Identify trainers and beneficiaries.
	SA3.	Plan trainings and venue
	SA3.	Performance of training and carry out home visits including energy advice by energy coaches and social domain).



Stakeholders Involved	<p>Social housing corporation Heerlen Stand-by! (Community workers and social counselling) Heerlen Municipality GGD (local public Healthcare to provide knowledge in developing training material) Woonwijzer Winkel (one stop shop)</p>	
Period	End 2022 and ongoing during 2023/ 2024	
Budget & Investments	<p>Other sources. SPUK national budget is used for this, and actions are carried out in the bigger city region Parkstad</p>	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Min 70% of intervention group (100 households)
Risks & Mitigation Measures	Risk 1.	<p>Interventions bias possible. People get a lot of information from different parties. Parkstad Region would like to communicate under one flag (collaboration network fighting the energy poor) Energy and sustainability used to be a theme that was further away from daily practice, and not a hot topic for energy poor and vulnerable people. There was not enough political will to do something about it and it was included in the overall poverty approach.</p>
	Mitigation Measures 1.	<p>Strengthen collaboration. Now with the energy crisis our economy and all people are affected. Since this year everyone knows the word energy poverty. This means that two different policy fields must work together, energy and energy saving measures together with the social domain supporting the most vulnerable. However, at the moment we face a serious crisis in the country so there are many initiatives fighting energy poverty on different levels. People need help and support comes from all different angles including the Wellbased project.</p>
Facilitators	Political	Municipality Heerlen
	Economic	One stop shop (Woonwijzerwinkel)
	Social	Social workers in the field such as Heerlen Stand-By! and other volunteers with whom we have been in contact.

Table 6. Action WSC1.3-H1: (Energy) dept support

WSC1.3-H1	SOLUTION CATALOGUE
	LAYER 1
	INDIVIDUAL LIFESTYLE FACTORS
	PROJECT NAME
	WELLBASED
Pilot City	Heerlen
Country	Netherlands
Action	(Energy) dept support



Plan	<p>The social department has different supporting methods in their daily work and now need to expand them with energy saving support. Different grants are provided for the energy poorest already by the national government because we are facing this crisis.</p> <p>Wellbased will carry out an information session with the social domain (debt support) Provide information where to refer the most vulnerable people to.</p>	
Subaction	SA1.	Visit the debt support team / volunteers, provide them with energy saving information and websites where to find information.
	SA2.	Identify structure and provide information field visits to inform professional debt support.
Stakeholders Involved	Heerlen Stand-by!	
Period	June 2022 – dec 2022 and for 2023 we plan to do an update if needed, depending on the questions and energy crisis dynamics.	
Budget & Investments	N/A	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Sharing information and current changes and key contact person from the debt support (Min 2)
	KPI 2.	(Info and presentation) Meeting with volunteers and professionals Share information and experiences and best practice (Min 2)
Risks & Mitigation Measures	Risk 1.	There is basic information on energy saving measures that we can provide also in debt support, however with the high prices and small budget it is not possible to provide big impact. Mitigate expectations
	Mitigation Measures 1.	The local government is planning to expand the grants for more vulnerable households (first it was only 120% of social allowance norm, now also the people with 170% of the social allowance norm will be included) More people in our municipality can benefit.
Facilitators	Political	Municipality Heerlen
	Economic	One stop shop
	Social	Social workers in the field such as Heerlen Stand-By! and other volunteers with whom we have been in contact.

Table 7. Action WSC2.2-H2: Training professionals on energy poverty

WSC2.2-H2	SOLUTION CATALOGUE	
	LAYER 2	
	SOCIAL AND COMMUNITY NETWORKS	
	PROJECT NAME	
	WELLBASED	
Pilot City	Heerlen	
Country	Netherlands	
Action	Training professionals on energy poverty	
Plan	Training professionals on energy poverty	
Subaction	SA1.	Prepare training materials and invitations
	SA2.	Plan trainings and venue



	SA3.	Actual training/ education days
Stakeholders Involved	<p>Social workers and community workers will be educated on energy poverty so they can identify the topic and share basic knowledge about it:</p> <ul style="list-style-type: none"> - How to use your home efficiently - How to save on energy bills? And implement energy saving measures. - Where can you go with your questions and challenges (e.g., roadmap)? <p>See also similar actions as in action 1, the training will face two different groups of receivers; all inhabitants including the energy poor and the professionals who are active in the field.</p>	
Period	6 and 13 December 2022	
Budget & Investments	Wellbased budget: project leader, GGD Public Health One stop shop will be from national Grand SPUK (in the current assignment)	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Minimal 2 energy saving trainings for professionals Heerlen Stand-By (social domain) - 2 trainings though One Stop Shop
Risks & Mitigation Measures	Risk 1.	People in the field need to use the same information.
	Mitigation Measures 1.	They hope to tackle this because the one stop shop provides these trainings and provides same information for all.
Facilitators	Political	Municipality Heerlen
	Economic	One stop shop
	Social	Social workers in the field such as Heerlen Stand-By! and other volunteers with whom we have been in contact.

Table 8. Action WSC2.3-H2: Open talks/ community meetings (for the intervention group)

WSC2.3-H2	SOLUTION CATALOGUE
	LAYER 2 SOCIAL AND COMMUNITY NETWORKS
	PROJECT NAME WELLBASED
Pilot City	Heerlen
Country	Netherlands
Action	Open talks/ community meetings (for the intervention group)



Plan	<p>Apart from the information and training that we mentioned above, Wellbased pilot believes in community meetings for the people who are committed to the project research. Together with the local communities and Social Stand-BY! we organise open talks and community meetings to share experiences, energy advise and Q&A and the progress so far. Sharing experiences collectively in a nice warm ambiance coming together. Also, the idea is to keep people motivated and on board of the Wellbased project and research group by organising a healthy café approximately every 8 weeks. This is just for the Wellbased intervention group who participate in the research. This could also motivate them to continue, share experiences. Soup and coffee will be provided so they have a healthy small meal. Also, positive mental health effects (stimulate contact and meeting new people). Other curious or needed inhabitants won't be excluded from this action, everyone is welcome. Possible to use community houses but also the "hello bus" that could park in the neighbourhood.</p>	
Subaction	SA1.	Prepare scope and theme of each session by community work Stand- By
	SA2.	Plan the venue and send invitations
	SA3.	Actual community meetings sessions
Stakeholders Involved	<p>Heerlen Stand-by! (Community building and counselling) Community organisation Heerlen Municipality (area manager) Woonwijzer Winkel (one stop shop) Parkstad city region (Policy measures)</p>	
Period	March 2023- ongoing	
Budget & Investments	<p>Stand-By and municipality, integrate it in existing community work and prevention topics. The task of our Social Domain is that they need to promote community bonding and social cohesion. Different topics and themes are addressed. Now we promote energy saving measures and the topic of Wellbased. The budget is existing in the social domain, the Wellbased pilot is providing the topic, information and the specific target group. Budget project leader is paid by the Well based project</p>	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Community meetings in Heerlen Noord and open talks about energy poverty (Min. 3 meetings)
Risks & Mitigation Measures	Risk 1.	People hesitate to join the Wellbased research; participation in the study could be seen as time-consuming and therefore, they might not be interested in another meeting and talk about energy saving.
	Mitigation Measures 1.	We have to make sure that it is attractive to join the study and the project
Facilitators	Political	Municipality Heerlen
	Economic	One stop shop
	Social	Social workers in the field such as Heerlen Stand-By! and other volunteers with whom we have been in contact.
	Legal	None



Table 9. Action WSC3.2-H3: Delivery energy box / Digital Parkstad energy app

WSC3.2-H3	SOLUTION CATALOGUE	
	LAYER 3 LIVING AND WORKING CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Heerlen	
Country	Netherlands	
Action	Delivery energy box / Digital Parkstad energy app	
Plan	<p>There is a digital app active since October 2022 for the energy vulnerable people where a personal budget € 250, - is provided for energy saving measures. People can get advice from a e-coach or go to the department store and buy energy saving supplies.</p> <p>This is provided for the bigger city region Parkstad 250.000 inhabitants. Heerlen has 8.500 energy vulnerable people and all these households can benefit from this</p>	
Subaction	SA1.	Define low-income group Parkstad thus also in Heerlen Noord through social services
	SA2.	Identify target group project Well based the most vulnerable (all inhabitants of the city region Parkstad and thus also Heerlen Noord with low incomes, 120% of the social assistance income)
	SA3.	Provide small energy saving measures like draft comics, led lights etc.
Stakeholders Involved	One stop shop	
Period	October 2022 – ongoing and expanding new opportunities (Month 8, 9,10, 11 and 12)	
Budget & Investments	Build a digital app and also let the people from the well based project benefit from this.	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Downloads of digital energybox: “E-knip” and use of energy saving measures and e-coach (Min. 152 households)
Risks & Mitigation Measures	Risk 1.	The main risk is common to most of the actions and explained in Section 3.7
	Mitigation Measures 1.	Because they are facing a national crisis in the Netherlands, they have the national government forcing energy saving measures and provided a grant. This grant will be used also for the Wellbased target group. A risk is that the measure are implemented much faster than initially planned through Wellbased project. This is a political choice. They cannot mitigate this risk because people need support now, this project started in a different phase where there was not such a big energy crisis. Difficult to keep interventions separated to reduce bias.
Facilitators	Political	Municipality Heerlen
	Economic	One stop shop
	Social	Social workers in the field such as Heerlen Stand-By! and other volunteers with whom we have been in contact.



Table 10. Action WSC3.3-H3: Collaboration with housing corporations

WSC3.3	SOLUTION CATALOGUE	
	LAYER 3 LIVING AND WORKING CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Heerlen	
Country	Netherlands	
Action	Collaboration with housing corporations	
Plan	<p>Discuss planning, priorities and the actions on sustainable energy saving measures. Also, insight in social housing renovations that are planned during 2022-2024.</p> <p>Inhabitants are dependent and rely on the social housing corporation when it comes to energy saving measures. More impacts can be measured though bigger renovations (e.g., double glazing, insulation, solar panels, ventilation etc.)</p> <p>Collaboration on the topic of energy poverty with different stakeholders in the field is a pro because many people who suffer from energy poverty are living in a house from the social housing company corporation. Different stakeholders face the same target group, then collaboration and fighting common goals is key.</p>	
Subaction	SA1.	Introduce pilot and identify common goals
	SA2.	Establish working groups and meetings
	SA3.	Introduce Renovation and interventions PDCA during the WELLBASED pilot, if possible, with the planning
Stakeholders Involved	Social housing corporation Heerlen Municipality Chipmunk health Social domain	
Period	Ongoing 2023	
Budget & Investments	Social Housing corporations' renovation budget.	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Regular meetings with social housing corporations (Meet every 6-8 weeks)
Risks & Mitigation Measures	Risk 1.	During the energy crisis it is difficult to find a good planning because resources and human capital are scarce.
	Mitigation Measures 1.	Planning and needs vary over time, this makes it difficult to link a Well based project planning to it. Interventions with big impact might lack, it could be possible that only the smaller interventions will be carried out and the bigger renovations will postpone
Barriers	Economic	Renovations are postponed because the estimated costs are no longer correct. Everything has become more expensive. Another reason is that there is not enough manpower to carry out the renovations.



	Legal	For privacy reasons, we do not know which of our participants in the intervention group will have their homes renovated. We do know in which neighborhood homes will be renovated or even demolished, but we do not know if WELLBASED participants live there. In case of demolition, participants will have to be housed elsewhere which affects the measurements.
Facilitators	Political	Municipality Heerlen
	Economic	One stop shop
	Social	Social Housing corporation
	Technical	Chipmunk Health

Table 11. Action WSC4.2-H4: Policy advocacy plan (Parkstad level)

WSC4.2-H4	SOLUTION CATALOGUE	
	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Heerlen	
Country	Netherlands	
Action	Policy advocacy plan (Parkstad level)	
Plan	Heerlen is part of the Parkstad region, a collaboration between 7 different municipalities in the neighbourhood. Together all the municipalities are preparing an integrated policy action plan to fight energy poverty. All Tailor-made for each city specific indicators.	
Subaction	SA1.	Participate in regional meetings energy poverty
	SA2.	Prepare policy advice
	SA3.	Implementation phase
Stakeholders Involved	Heerlen Municipality Parkstad city region (Policy measures) One stop shop (advice and implementation)	
Period	Action plan October 2022 and ongoing	
Budget & Investments	National Budget to promote energy tools and fight energy poverty. See budget and resources mentioned above. All Dutch municipalities received this national grant from the Government. Goal is to use this grant to implement energy saving measures soonest.	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Organizing internal meetings with the sustainability programme and policy makers (Min. 2)
	Risks & Mitigation Measures	<p>Risk 1. Political actions Municipal actions can influence existing projects</p> <p>Mitigation Measures 1. Try to adapt to current situation</p>
Facilitators	Political	Municipality Heerlen
	Economic	One stop shop

Table 12. Action WSC4.3-H4: Communication campaign

WSC4.3-H4	SOLUTION CATALOGUE
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	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Heerlen	
Country	Netherlands	
Action	Communication campaign	
Plan	<p>Heerlen has a local newspaper called the “citynews” and also a lot of neighbourhoods distribute a local paper in their area. Some communities have a website where they publish local events. The Wellbased project will be promoted in the local newspapers, an article to inform people on the topic of energy poverty, energy measures and energy chances will be provided.</p> <p>Also, we have information papers per local neighbourhood, we provide content here and for Heerlen Noord we also promote Wellbased research</p>	
Subaction	SA1.	Prepare content and provide input
	SA2.	Publish content
Stakeholders Involved	Heerlen Municipality Wellbased project and partners Local community organisations	
Period	None	
Budget & Investments	Municipality department of community work Communication budget Wellbased Partners who provide this opportunity for Wellbased project Existing communication budget from the municipality.	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Print flyers and posters Wellbased recruitment. Publish in the city paper (stadskrant) Publish at local stakeholders: such as: Heerlen Noord programme, social housing corporations and community organisations
	Risk 1.	Information is overwhelming in the crisis days, because of this we cannot stick to a certain target group (vulnerable or energy poor) information is for all people in the region. Because of current energy crisis we have to communicate to a broader group.
Risks & Mitigation Measures	Mitigation Measures 1.	Try to get communication through a central points as local newspapers.
	Facilitators	Political Municipality Heerlen

Table 13. Action WSC4.4-H4: Local stakeholders network collaboration

	SOLUTION CATALOGUE	
WSC4.4-H4	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Heerlen	
Country	Netherlands	



Action	Local stakeholders network collaboration	
Plan	<p>Promote strong local network partnerships and impact bonds with other stakeholders who want to fight energy poverty and promote sustainable energy measures.</p> <p>Energy poverty is high on the political agenda; therefore an agreement was signed for collaboration of all local municipalities in the Parkstad region and stakeholders fighting energy poverty. Called “het verbond voor energie rechtvaardigheid”.</p> <p>With this signed the political will is underlined, meetings are planned on a regular base to see what all stakeholders have contributed to fight energy poverty.</p> <p>List is provided in annex and will be repeated.</p>	
Subaction	SA1.	Identify stakeholders and local working groups
	SA2.	Identify common goals, tasks and meeting structure
Stakeholders Involved	<p>Wellbased, project partners, Social housing Corporation. Heerlen Stand-by! (Community building and counselling). Community organisations, Heerlen Municipality GGD (local Healthcare) Woonwijzer Winkel (one stop shop) Parkstad city region</p>	
Period	Oct 2022, December 8th 2022 (network meeting)	
Budget & Investments	Wellbased integrated with local budget in the neighbourhoods and national grant	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Meetings with collaborating stakeholders and board members (Kick off, midterm, finalising and closure) - Min. 4 board meetings
	Risk 1.	Need that Energy Poverty is high on the policy agenda
Risks & Mitigation Measures	Mitigation Measures 1.	The need to fight energy poverty is still there, however; the risk is that partners and politics have also other urgent topics to cover
	Facilitators	Political
Economic		One stop shop
Social		Social workers in the field such as Heerlen Stand-By! and other volunteers with whom we have been in contact.

2.2.1.3. Jelgava Pilot

The Solution Catalogue for Jelgava includes several key actions aimed at addressing energy poverty and improving urban health. These actions include training on energy efficiency and air quality improvement in participants’ homes, educational excursions to the Energy Efficiency Center, socio-energy audits, an energy efficiency toolkit, educational materials, collective advisory support for local NGOs representing vulnerable groups, and recommendations for policymakers.

Table 14. Action WSC1.4-J1: Training on energy efficiency and air quality improvement in participants’ homes

WSC1.4-J1	SOLUTION CATALOGUE
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS



	PROJECT NAME WELLBASED	
Pilot City	Jelgava	
Country	Latvia	
Action	Training on energy efficiency and air quality improvement in participants' homes	
Plan		
Stakeholders Involved	Zemgale Regional Development Agency Social Support Department Department of Real Estate	
Period	September 2022-January 2023	
Budget & Investments	WELLBASED, 6,000 euros	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of participants in the events (100)
	KPI 2.	Number of leaflets printed and distributed (3000)
Risks & Mitigation Measures	Risk 1.	People are not active
	Mitigation Measures 1.	Risk materialized. In spite of publications in local media, social networks, meeting with representatives of NGO and participating in different public events, people are not willing to get additional commitments.
Barriers	Political	None
	Economic	None
	Social	Due to tense economical situation people are not willing to be involved in additional activities
Facilitators	Political	Local municipality is supportive regarding energy efficiency improvements both for public and private sector (municipality has joined Covenant of Mayors)
	Legal	Several energy efficiencies supporting programmes are available for individuals regarding use of renewable resources, home renovation etc.
Solution 1.		
Suggestion	Individual approach	
Expected Impacts	Higher response rate	

Table 15. Action WSC1.5-J1: Educational excursion to the Energy Efficiency Center

	SOLUTION CATALOGUE	
WSC1.5-J1	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Jelgava	
Country	Latvia	
Action	Educational excursion to the Energy Efficiency Center	
Plan	None	
Stakeholders Involved	Zemgale Regional Energy agency, Social Support Department, Department of Real Estate	
Period	June 2023-September 2023	
Budget & Investments	WELLBASED 1344.80 euros	
Project website	https://wellbased.eu/	



Key Performance Indicators (KPI)	KPI 1.	Number of participants in the events (54)
	KPI 2.	None
Risks & Mitigation Measures	Risk 1.	People are not active
	Mitigation Measures 1.	Risk materialized. In spite of publications in local media, social networks, meeting with representatives of NGO and participating in different public events, people are not willing to get additional commitments.
Barriers	Social	Due to tense economical situation people are not willing to be involved in additional activities
Facilitators	Political	Local municipality is supportive regarding energy efficiency improvements both for public and private sector (municipality has joined Covenant of Mayors)
	Legal	Several energy efficiencies supporting programmes are available for individuals regarding use of renewable resources, home renovation etc.
Solution 1.		
Suggestion	Individual approach	
Expected Impacts	Higher response rate	

Table 16. Action WSC1.6-J1: Socio-energy audits

WSC1.6-J1	SOLUTION CATALOGUE	
	LAYER 1	
	INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Jelgava	
Country	Latvia	
Action	Socio-energy audits	
Plan	Energy audits will be provided by experts using adapted methodology for household energy audits, people will be advised on most appropriate activities to be taken to reduce energy consumption.	
Stakeholders Involved	Zemgale Regional energy agency	
Period	September 2022-February 2023	
Budget & Investments	WELLBASED 12 500 euros	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of socio-energy audits performed (146)
	Risk 1.	People are not active to use this possibility.
Risks & Mitigation Measures	Mitigation Measures 1.	Risk materialized. In spite of publications in local media, social networks, meeting with representatives of NGO and participating in different public events, people are not willing to get additional commitments.
	Barriers	Social Some people do not agree for individual household audit, prefer to receive consulting in distance which may influence the amount of practical information they receive
Facilitators	Political	Local municipality is supportive regarding energy efficiency improvements both for public and private sector (municipality has joined Covenant of Mayors)



	Legal	Several energy efficiencies supporting programmes are available for individuals regarding use of renewable resources, home renovation etc.
Solution 1.		
Suggestion	Distance consulting is performed	
Expected Impacts	Medium	

Table 17. Action WSC1.7-J1: Energy efficiency toolkit

WSC1.7-J1	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Jelgava	
Country	Latvia	
Action	Energy efficiency toolkit	
Plan	Energy Efficiency Toolkit with light bulbs etc. will be prepared and issued to intervention group providing them with possibility to reduce energy consumption in household	
Stakeholders Involved	POIC	
Period	October 2022 -August 2023	
Budget & Investments	WELLBASED, 12,500 euros	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of energy efficiency kits distributed (146)
Risks & Mitigation Measures	Risk 1.	People are not using proposed measures in their everyday life
	Mitigation Measures 1.	Proposed measures will be practical and easy to implement, not requiring additional or significant investments.
Facilitators	Political	Local municipality is supportive regarding energy efficiency improvements both for public and private sector (municipality has joined Covenant of Mayors)
	Social	local energy providers (electricity, heating etc.) have been very active in educating people regarding implementation of energy efficiency measures
	Legal	Several energy efficiencies supporting programmes are available for individuals regarding use of renewable resources, home renovation etc.



Table 18. Action WSC2.4-J2: Training on energy efficiency and air quality improvement in participants' homes

WSC2.4-J2	SOLUTION CATALOGUE	
	LAYER 2 SOCIAL AND COMMUNITY NETWORKS	
	PROJECT NAME WELLBASED	
Pilot City	Jelgava	
Country	Latvia	
Action	Training on energy efficiency and air quality improvement in participants' homes	
Stakeholders Involved	Zemgale Regional Development agency, Social Support Department, Department of Real Estate	
Period	September 2022-January 2023	
Budget & Investments	WELLBASED, 6,000 euros	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of participants in the events (100)
	KPI 2.	Number of leaflets printed and distributed (3000)
Risks & Mitigation Measures	Risk 1.	People are not active
	Mitigation Measures 1.	Risk materialized. In spite of publications in local media, social networks, meeting with representatives of NGO and participating in different public events, people are not willing to get additional commitments.
Facilitators	Political	Local municipality is supportive regarding energy efficiency improvements both for public and private sector (municipality has joined Covenant of Mayors)

Table 19. Action WSC2.5-J2: Educational materials

WSC2.5-J2	SOLUTION CATALOGUE	
	LAYER 2 SOCIAL AND COMMUNITY NETWORKS	
	PROJECT NAME WELLBASED	
Pilot City	Jelgava	
Country	Latvia	
Action	Educational materials	



Plan	Educational materials developed by Project staff and Stakeholders to educate people on energy efficiency measures. Educational material can be distributed electronically for persons who have emails or printed versions can be handed out when performing 2nd round of interviews or distributed by usual mail	
Stakeholders Involved	Zemgale Regional Development agency	
Period	September 2022 -November 2022	
Budget & Investments	WELLBASED, 3,000 euros	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Copies of training materials developed and distributed (1000)
Risks & Mitigation Measures	Risk 1.	People are not using proposed measures in their everyday life
	Mitigation Measures 1.	The action is still in progress and it cannot be identified yet if participants are not using proposed measures. Using the experience of consultants, proposed measures will be practical and easy to implement not requiring additional or large investments.
Facilitators	Political	local municipality is supportive regarding energy efficiency improvements both for public and private sector (municipality has joined Covenant of Mayors)

Table 20. Action WSC2.6-J2: Collectives advice support to local NGO's representing vulnerable groups

WSC2.6-J2	SOLUTION CATALOGUE	
	LAYER 2	
	SOCIAL AND COMMUNITY NETWORKS	
	PROJECT NAME	
	WELLBASED	
Pilot City	Jelgava	
Country	Latvia	
Action	Collectives advice support to local NGO's representing vulnerable groups	
Plan	There are about 80 NGOs established in Jelgava –some of them are representing also vulnerable groups. It is planned to participate in events organised by these NGOs to spread information and educate participants and especially the leaders of NGOs on energy efficiency measures in everyday life.	
Stakeholders Involved	ZREA, POIC, NGOs	
Period	September 2022 and August 2023	
Budget & Investments	WELLBASED, 2,000 euros	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of events visited (At least 3 events)
	KPI 2.	Number of persons participating (At least 50 persons participating)



Risks & Mitigation Measures	Risk 1.	People are not using proposed measures in their everyday life
	Mitigation Measures 1.	Using the experience of consultants, proposed measures will be practical and easy to implement not requiring additional or large investments.
Facilitators	Political	local municipality is supportive regarding energy efficiency improvements both for public and private sector (municipality has joined Covenant of Mayors)

Table 21. Action WSC4.5-J4: Recommendations for policymakers

WSC4.5-J4	SOLUTION CATALOGUE	
	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Jelgava	
Country	Latvia	
Action	Recommendations for policymakers	
Plan	Recommendations developed based on Pilot results on best intervention measures for energy poverty reduction and correlation of energy poverty to health status.	
Stakeholders Involved	Social Support Service, Zemgale Regional energy agency, POIC	
Period	October 2023 –January 2024	
Budget & Investments	WELLBASED, 1,000 euros	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Document developed summarizing recommendations for policy makers on best intervention measures for energy poverty reduction. (one document developed)
	KPI 2.	Recommendations presented to policy makers (1 event)
Risks & Mitigation Measures	Risk 1.	People are not using proposed measures in their everyday life
	Mitigation Measures 1.	Using the experience of consultants, proposed measures will be practical and easy to implement not requiring additional or large investments.
Facilitators	Political	Local municipality is supportive regarding energy efficiency improvements both for public and private sector (municipality has joined Covenant of Mayors)



2.2.1.4. Leeds Pilot

The Solution Catalogue for Leeds includes several key actions aimed at addressing energy poverty and improving urban health. These actions include conducting socio-energy audits and implementing building improvements.

Table 22. Action WSC1.8-L1: Socio-energy audits

WSC1.8-L1	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Leeds	
Country	United Kingdom	
Action	Socio-energy audits	
Plan	These are activities led by our partners Linking Leeds and Green Doctors. They are taking self-referrals by our participants and will continue to do so this winter.	
Subaction	SA1.	Make contact with Equans and set up a communications channel
	SA2.	Attend ENGIE residents' engagement and information events.
Stakeholders Involved	Equans – contractor; Leeds city Council Buildings team	
Period	For our first case study site, the works were planned to start in July 2022, but only really started in September 2022 in earnest.	
Budget & Investments	In LCC's building renovation budget – not paid for by Wellbased	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Completed building works on 3 blocks
Risks & Mitigation Measures	Risk 1.	Project does not run to time. Timelines are currently already pushed back due to some legal difficulties in engaging with leaseholders. This poses something of a risk for our appointment of a Health Data Technician which has a strict time limit of 18 months due to budget.
	Mitigation Measures 1.	This is an ongoing risk. We have a limited budget to continue our Health Data Technician's contract, so we may lose out on data collection in the later months of the study.
Barriers	Economic	Some of the tenants are either on benefits or have very limited income. The current heating system is costly, making them use it sparingly.
	Social	Their precarious situation is a barrier to continuing their social life. Also, the house environment is not always appropriate to host people at home. Sometimes, this is seen as an extra expense.
	Cultural	Some of the tenants are not fluent in English. This constrains their capacity to express their needs and even complain.



	Technical	The heaters are said to be hard to operate and the way the heaters are set up, make it inefficient for most tenants to use.
	Environmental	Some of the flats have more people living in them than they should have which can make ventilating the properties difficult which can lead to incidences of damp and mould.
	Legal	Most of the tenants rent the property to Leeds City council. Therefore, their ability to make any renovation by themselves would be limited by this situation. They will ultimately depend on LCC's decision and timings.
Solution 1.		
Suggestion	LCC should build more flats that are suitable for bigger families to reduce the levels of overcrowding.	
Expected Impacts	Correctly sized properties will be easier to maintain and will perform better from an environmental perspective as they have the correct number of people living in them.	
Stakeholders	Leeds City Council, Councilors in Leeds, UK Government	
Potential for Replication	High	

Table 23. Action WSC3.5-L3: Building improvements

WSC3.5-L3	SOLUTION CATALOGUE	
	LAYER 3 LIVING AND WORKING CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Leeds	
Country	United Kingdom	
Action	Building improvements	
Plan	For our first case study site, the works were planned to start in July 2022, but only really started in September 2022 in earnest.	
Subaction	SA1.	Make contact with Equans and set up a communications channel
	SA2.	Attend ENGIE residents' engagement and information events
Stakeholders Involved	Equans – contractor; Leeds city Council Buildings team	
Period	None	
Budget & Investments	In LCC's building renovation budget – not paid for by Wellbased	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Completed building works on 3 blocks
	Risk 1.	Project does not run to time.

Risks & Mitigation Measures	Mitigation Measures 1.	Timelines are currently already pushed back due to some legal difficulties in engaging leaseholders. This poses something of a risk for our appointment of a Health Data Technician which has a strict time limit of 18 months due to budget.
Barriers	Economic	The interventions have made the overall price of the apartments to go up and tenants who had plans to buy their apartments have had to put the plans on hold due to how much more the price of the apartments cost. Current tenants are being priced out of their houses.
	Social	The scaffolding and ongoing noise from the renovations have made it difficult for the tenants to socialise. The children are also unable to play on the lawn and with no communal spaces, it is harder for the residents to socialise with each other and others.
	Cultural	Some of the tenants are not fluent in English. Which can stop them to ask for help.
	Technical	The intervention blocked the parking outside the blocks. For some tenants who do their shopping online, or even need to space for parking, it was a very limiting condition. Some of the homes lack a proper ventilation system, even after the recent renovation. Some tenants complain about not being able to turn off the new ventilation system, this occurring in extra costs.
	Environmental	During the intervention process, while the scaffolding was up, some tenants complained about rats in the building, noises and dirtiness in the surroundings of the building. Renovations did not consider side effects on people's homes.
Facilitators	Environmental	Leeds City Council has a stated aim of being Carbon Neutral by 2030 and in its Housing Strategy for 2022-2030 one of the targets is the 'decarbonisation of the existing housing stock and improvement of energy efficiency'.
Solution 1.		
Suggestion	Ensure communication channels with tenants are set up ahead of any work commencing to ensure everyone is clear about what is happening, how long it will last and what the impact will be.	
Expected Impacts	Tenants will have a better understanding of what will be happening and can make alternative arrangements.	
Stakeholders	Housing Leeds	
Potential for Replication	High	

2.2.1.5. Obuda Pilot

The Solution Catalogue for Obuda includes several key actions aimed at addressing energy poverty and improving urban health. These actions include conducting energy audits, areas management, providing energy efficiency training, offering household management training, implementing health improvement actions, organizing attitude-forming programs, running community-building programs, modernizing household energy systems, and engaging stakeholders.



Table 24. Action WSC1.9-01: Energy audits

WSC1.9-01	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Obuda	
Country	Hungary	
Action	Energy audits	
Plan	The aim of the energy audit is to assess the participants' home's energy situation related to energy use, consumption, appliances, etc. outlining all the specifics. This will help the participant to identify where their home is losing energy and what steps they can take to improve energy efficiency. The starting point is to pass a comprehensive questionnaire, which will help us design a tailored intervention, which responds to their actual needs.	
Subaction	SA1.	Fix an appointment with the participant
	SA2.	Pass comprehensive questionnaire
	SA3.	Evaluation
Stakeholders Involved	Óbuda-Békásmegyer Urban Development Plc. Óbuda Family Counselling and Child Protection Centre external expert	
Period	M19 – ongoing	
Budget & Investments	The resources for deploying this action are the ones used currently in the Family Counselling and Child Protection Centre, but it will also be partly financed from the Wellbased project, and from municipal sources, if needed.	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of participants audited (146)
Risks & Mitigation Measures	Risk 1.	Participants do not understand the technical advice.
	Mitigation Measures 1.	The risk has not taken place. Simple language is being used. Questions and feedback are being asked often to check that it's being understood.
Barriers	Technical	Some participants were not satisfied with external experts
Solution 1.		
Suggestion	Hiring new external experts to implement energy audits	
Expected Impacts	More satisfied participants leading to more enthusiasm and commitment	
Stakeholders	OBM and external experts	

Table 25. Action WSC1.10-01: Areas management

WSC1.10-01	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	



Pilot City	Obuda	
Country	Hungary	
Action	Areas management	
Plan	In order to deal with and resolve the existing problem and to prevent arrears and debt spiral, the colleagues at the Family Counselling and Child Protection Centre will develop a professional program aiming to help those affected and offer efficient solution for this problem. Participants will be informed about this opportunity from time to time, mainly in the first half of the intervention period. The service will be available throughout the project period and beyond.	
Subaction	SA1.	Informing participants about the opportunity
	SA2.	Counselling
Stakeholders Involved	Óbuda Family Counselling and Child Protection Centre	
Budget & Investments	The resources for deploying this action are the ones used currently in the Family Counselling and Child Protection Centre, which will be strengthened thanks to the sources of the Wellbased project (personnel costs).	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of counselling held (10)
Risks & Mitigation Measures	Risk 1.	Participants do not participate at the counselling, even in need
	Mitigation Measures 1.	Do not have enough experience to know. Social workers are working on deepening trust.
Barriers	Social	difficult to reach target population because of fear of stigma
Solution 1.		
Suggestion	Including social workers in the implementation who already have experience with such issues, Bringing the opportunity to people's attention	
Expected Impacts	Participants will be more willing to ask for professional help regarding their arrears, People in need of counselling will contact the Family Counselling and Child Protection Center.	
Stakeholders	Óbuda Family Counselling and Child Protection Centre	
Potential for Replication	Medium	

Table 26. Action WSC1.11-01: Energy efficiency trainings

WSC1.11-01	SOLUTION CATALOGUE	
	LAYER 1	
	INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME	
	WELLBASED	
Pilot City	Obuda	
Country	Hungary	
Action	Energy efficiency trainings	
Plan	Energy efficiency trainings will be organized for all households involved in the project by the Energiaklub NGO. The NGO already has much professional experience in this field and will develop a complex and interactive material specifically for the tenants. Training materials will continue to be available after the series of events.	
Subaction	SA1.	Fix an appointment with the participant
	SA2.	Carry out training



	SA3.	Carry out training of key actors
Stakeholders Involved	Óbuda-Békásmegyer Urban Development Plc. Óbuda Family Counselling and Child Protection Centre Óbuda Asset Management Ltd. external expert	
Period	M21 – ongoing	
Budget & Investments	The task is planned to be financed from the Wellbased project. According to an indicative offer on the training, the estimated cost is around 6,000 EUR	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of trainings held (3)
	KPI 2.	Number of key actors receiving the training (15)
Risks & Mitigation Measures	Risk 1.	Participants do not understand the technical advice
	Mitigation Measures 1.	The risk has not taken place. Simple language is being used. Questions and feedback are being asked often to check that it's being understood

Table 27. Action WSC1.12-01: Household management trainings

WSC1.12-01	SOLUTION CATALOGUE	
	LAYER 1	
	INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME	
	WELLBASED	
Pilot City	Obuda	
Country	Hungary	
Action	Household management trainings	
Plan	Household management trainings will be organized for all households involved in the project by the Family Counselling and Child Protection Centre. They will receive a professional program developed by them earlier, which proved to be interactive and efficient. They already have much professional experience in this field, have an active relationship with most tenants and have built confidence with them.	
Period	The trainings are scheduled to start in the spring. Appointments will be fixed later on	
Project website	https://wellbased.eu/	
Barriers	Social	Participants not interested enough
Solution 1.		
Suggestion	Inviting an expert with experience in organizing interactive and practical trainings, after recognizing the modest motivation to participate in the training, and receiving some suggestions from the participants on how to make the trainings more interesting and useful, the structure and the content of the trainings were reformed, taking into consideration different aspects and needs.	
Expected Impacts	More enthusiastic and committed participants, Participants will be more likely to attend the events.	
Stakeholders	OBM and external expert, Óbuda Family Counselling and Child Protection Centre	



Table 28. Action WSC1.13-01: Health improving actions

WSC1.13-01	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Obuda	
Country	Hungary	
Action	Health improving actions	
Plan	In order to improve the participants' state of health significantly, apart from monthly collection of health data, participants will also receive health screening and general examinations to map their current health status. Health screening covers the following main areas: urological screening; cardiac screening (ECG, blood pressure measurement, risk assessment); arteriographic examination; oral screening; visual acuity test; mole screening; CO measurement; bone density test; In-Body body composition measurement; nutrition counselling, suitable physiotherapy sessions.	
Subaction	SA1.	Fix an appointment with the participant
	SA2.	Carrying out health improving actions
Stakeholders Involved	Szent Margit Outpatient Health Service	
Period	M20-M48	
Budget & Investments	The resources for deploying this action are the ones used currently in the Óbuda Outpatient Health Service and Health Development Office, which will be strengthened thanks to the Wellbased project sources.	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of participants screened (100)
	Risk 1.	Participants will not be interested enough to take part in health screenings.
Risks & Mitigation Measures	Mitigation Measures 1.	The risk has not taken place. Participants were happy to attend. The screenings are free of charge, on flexible dates, and near the homes of participants.

Table 29. Action WSC2.7-02: Attitude forming programs

WSC2.7-02	SOLUTION CATALOGUE	
	LAYER 2 SOCIAL AND COMMUNITY NETWORKS	
	PROJECT NAME WELLBASED	
Pilot City	Obuda	



Country	Hungary	
Action	Attitude forming programs	
Plan	Interactive attitude-forming events are to be held, informal outdoor events are to be organized, lectures and demonstrations could be done. There are several community programs for the whole neighborhood, which could work as an excellent platform for the above-mentioned activities and could reach lots of people at the same time. These community events are planned for all age groups, and include cultural performances and concerts, attitude forming and community building programs and sports.	
Subaction	SA1.	Fix an appointment with the participant
	SA2.	Carry out attitude forming programs
Stakeholders Involved	Óbuda-Békásmegyer Urban Development Plc. external expert	
Period	M24-M36	
Budget & Investments	The resources for deploying this action are the ones used currently at Óbuda-Békásmegyer Urban Development Plc., might be strengthened by the Wellbased project sources (most likely from budget line for communication costs), depending on the involved stakeholders.	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of events held (2)
Risks & Mitigation Measures	Risk 1.	Participants will not be interested enough to take part in attitude forming programs
	Mitigation Measures 1.	The risk has not taken place. The programs will be held free of charge, at flexible dates, near the homes of participants
Barriers	Economic	Due to the inflation, some WELLBASED budget will need to be relocated and this might affect attitude forming and community building events
	Social	Participants will not be interested enough to take part in attitude forming programs
	Cultural	Afraid to participate because of what others might think
Solution 1.		
Suggestion	Attitude forming and community building events might be joined together	
Expected Impacts	Saving on budget and raising more interest at once	
Stakeholders	Municipality	



Table 30. Action WSC2.8-O2: Community building programs

SOLUTION CATALOGUE	
LAYER 2 SOCIAL AND COMMUNITY NETWORKS	
PROJECT NAME WELLBASED	
Pilot City	Obuda
Country	Hungary
Action	Community building programs
Plan	Two bigger community building events are planned, once at the beginning of the intervention period, and once during it. The exact programs and themes are yet to be defined. Smaller events could be organized several times throughout the intervention period.
Subaction	SA1. Fix an appointment with the participant.
	SA2. Carry out community building programs
Stakeholders Involved	Óbuda-Békásmegyer Urban Development Plc.
Period	M18-M36
Budget & Investments	The resources for deploying this action are the ones used currently at Óbuda-Békásmegyer Urban Development Plc., might be strengthened by the Wellbased project sources, from budget line for communication costs.
Project website	https://wellbased.eu/
Key Performance Indicators (KPI)	KPI 1. Number of events held (2)
	KPI 2. Number of participants expected (120)
Risks & Mitigation Measures	Risk 1. Participants will not be interested enough to take part in community building programs
	Mitigation Measures 1. The risk has not taken place. The programs are held free of charge, at flexible dates, near the homes of participants
Barriers	Economic due to the inflation, some WELLBASED budget will need to be relocated and this might affect attitude forming and community building events
	Social Participants will not be interested enough to take part in attitude forming programs
Solution 1.	
Suggestion	Attitude forming and community building events might be joined together
Expected Impacts	Saving on budget and raising more interest at once
Stakeholders	Municipality

Table 31. Action WSC3.6-03: Energy modernization of households

WSC3.6-03	SOLUTION CATALOGUE	
	LAYER 3 LIVING AND WORKING CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Obuda	
Country	Hungary	
Action	Energy modernization of households	
Plan	As a first step, households will be examined and tenants will be asked for more insight, before deciding about the exact manners and tools to modernize the households. There will not be a common method or device, all households will receive this intervention tailored to their needs. This may include treating the problem of inadequate cooling-heating, ventilation, damp, replacement of broken, old or inefficient household appliances.	
Subaction	SA1.	Fix an appointment with the participant
	SA2.	Examination of households
	SA3.	Evaluation of results
	SA3.	Carrying out modernization
Stakeholders Involved	Óbuda-Békásmegyer Urban Development Plc. Óbuda Asset Management Ltd.	
Period	n/a – procurement and installation scheduled for spring 2023 (M24-M30)	
Budget & Investments	The intervention is planned to be financed from municipal sources. The intervention is planned to be financed from municipal sources.	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of participants receiving energy modernization (146)
Risks & Mitigation Measures	Risk 1.	There may be financial or technical problems or delays regarding the implementation of planned activity.
	Mitigation Measures 1.	Periodic internal controls will be made during the application for problems and/or deviations that may occur. There will be continuous direct contact with all participants and involved institutions to prevent unexpected problems and to manage all issues in time.
Barriers	Political	Not able to provide enough financial support
	Economic	Due to the inflation, some WELLBASED budget will need to be relocated and this might affect energy modernization
	Technical	Lots of need for technical compliances - household circumstances are not satisfactory. very challenging to make it happen
	Legal	Too many legal issues, different in case of home owners and of social tenants
Solution 1.		
Suggestion	Regarding implementation, putting emphasis on appliances that do not require construction and do not involve legal issues	
Expected Impacts	Higher rate of success regarding implementation	
Stakeholders	Municipality	



Table 32. Action WSC4.6-O4: Engagement of stakeholders

WSC4.6-O4	SOLUTION CATALOGUE	
	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Obuda	
Country	Hungary	
Action	Engagement of stakeholders	
Plan	<p>The Municipality will produce a stakeholder analysis, assess their needs and expectations, and develop a detailed methodology and schedule to involve them. Partners will organise stakeholders both on professional and local levels, depending on their relevance and field of functioning. Local stakeholders, such as owners, tenants and representatives of residential buildings, institutions (Óbuda-Békásmegyer Urban Development Plc., Óbuda Family Counselling and Child Protection Centre, Óbuda Asset Management Ltd.), NGOs will be involved at local level. Meetings will be organized 2-3 times during the intervention period, to ensure their involvement. Targeted communication will be vital to reach these entities and the general public.</p>	
Subaction	SA1.	Fix an appointment
	SA2.	Conference for local stakeholders
	SA3.	Conference for professional stakeholders
Stakeholders Involved	Local and professional stakeholders	
Period	M20-M48	
Budget & Investments	Wellbased source and municipal sources, if needed	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of conferences for local stakeholders (3)
	KPI 2.	Number of conferences for professional stakeholders (2)
Risks & Mitigation Measures	Risk 1.	Stakeholders will not be interested enough to take part in the conference
	Mitigation Measures 1.	The conferences will be held at flexible dates, based on their needs
Barriers	Political	not interested enough
	Economic	not having budget
Solution 1.		
Suggestion	Attitude forming and community building events might be joined together with stakeholder engagement sessions	
Expected Impacts	Saving on budget and raising more interest at once	
Stakeholders	OBM	
Potential for Replication	Medium	



2.2.1.6. Valencia Pilot

The Solution Catalogue for Valencia includes several key actions aimed at addressing energy poverty and improving urban health. These actions include conducting socio-energy audits, providing debt support, optimizing bills, delivering energy efficiency kits, organizing regular community meetings to engage participants and foster a sense of group identity, including spaces for mutual support, training professionals on detecting energy poverty, hosting open talks on energy poverty, energy rights, energy efficiency, health habits, and more, launching a citizen campaign for the Right to Energy, developing a policy advocacy plan, and mapping available and potential life-enhancing programs and initiatives.

Table 33. Action WSC1.14-V1: Socio-energy audits

WSC1.14-V1	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Valencia	
Country	Spain	
Action	Socio-energy audits	
Plan	Socio-energy audit to assess the participant's home energy situation related to energy use, consumption, appliances, etc. This will help the participants to identify where their home is losing energy and what steps they can take to improve energy efficiency	
Subaction	SA1.	Fix an appointment with participants
	SA2.	Pass comprehensive questionnaire
	SA3.	Analysis of results and design of customized intervention plan
Stakeholders Involved	Energy Office (Valencia Clima i Energia) Las Naves	
Period	M18-M27	
Budget & Investments	Good habits and efficiency guide: 1,152€ Summary of efficiency measures: 640€	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of households audited (128)
	KPI 2.	Number of guides and training materials delivered (128)
	Risk 1.	Participants do not understand the technical advice



Risks & Mitigation Measures	Mitigation Measures 1.	Up to date, most of the participants appear to be very interested and motivated within the energy field, especially regarding bills and home efficiency. Participants prepare their questions and concerns in advance, making the first working session very profitable and really focused on the participant needs. Even so, the energy coaches give their recommendations in a very user-friendly language, complementing their suggestions with daily life examples and experiences, adapted to each house, conditions and profile.
	Risk 2.	Participants cannot answer questions about energy sources and appliances with precision
	Mitigation Measures 2.	Normally, most of the participants know what their resources are (gas and electricity grid, bottled butane gas). At the moment, the trickiest question found is to identify which energy tariff they have: (1) the regulated market (price and conditions established by the Government) or (2) a contract with a free market supplier (with free competition and prices). This is a crucial point as participants can only apply to financial support and reductions in the regulated market. Therefore, in case they do not know it, the energy coaches shall identify it - by checking the latest bills and the company features - at the very beginning of the working session in order to adapt their advice and, eventually, help them to apply to these tariffs price reduction.
Barriers	Political	In order to continue with socio-energy audits it is important to have the support from the municipality to get the funding and depending on the political party they can allocate more or less funding
	Economic	If the inflation keeps rising having a negative impact in the economy that would cause more people suffering from energy vulnerability, hence more people that would need to be audited
	Social	Official information (social tariff, discounts, price fluctuations) does not reach equally all society statements. The situation worsens within the migrant collective and the most vulnerable consumers such as older people and single parent families
	Cultural	Generally, participants see the energy field as something very technical, foreign and unconnected to them. There is a general thought that consumers can do little to improve their situation. Also we face the fake news and scam barrier.
	Technical	Bills are not easy to understand due to the way companies present the information. Therefore participants find hard to adapt their consumption habits and behavior. We also identify the digital gap as a barrier as nowadays we can find a lot of information on internet and mobile apps.
	Environmental	Most vulnerable consumers often leave aside their concerns about climate change to attend their most urgent daily needs.
	Legal	If the data is stored a consent form is needed



Facilitators	Political	Raise awareness among politicians, put in value the usefulness of tackling energy poverty, bring energy poverty to the political agenda, link the impact of energy poverty into other fields such as social, economical, enviromental and health care system. Explain the potential benefits of addressing energy poverty in all these fields.
	Economic	If the economy gets worse more people will have the need of reducing expenses, therefore they will have more interest in participating in a energy-audit
	Social	We have prepared leaflets and other tools to help spread the information and facilitate its understanding. At this stage, NGOs, local associations and other societal actors are key facilitators to provide vulnerable consumers this information
	Cultural	Provide leaflets and information about consumers' rights during the energy audit. Encourage people to come to the workshops and energy meetings. Participants can also ask energy couches any question they have about potential fake news and scammers.
	Technical	With the experience from WELLBASED pilot we could create a guidance with tips to perform the audits, even a self-audit guidance
	Environmental	Participants - and people in general - are suffering from heat waves, droughts and other extreme weather events. Normally they identify those as a direct consequence of climate change. With the rising concern of climate change more people want to know about their energy consumption
	Legal	We explain that the consent form is a guarantee of their participation rights. Participants can also feel safe about their personal data, which are protected under strict european protocols; and secure, as their information will not be misused or transfered to any energy company.
	Solution 1.	
Suggestion	WELLBASED has established a solid protocol and guidelines for energy audits covering multiple energy issues: bill optimization, aids and social discounts available and eligibility, energy efficiency at home, tips to use home appliances, review of house's strong and weak points and impact on the consumer behaviour, Well trained energy technicians and preparation of materials to support enery audit	
Expected Impacts	Increase home savings and energy efficiency at home. Raise awareness of energy waste and climate change. Impact consumers' behaviour. Improve living conditions and comfort at home.	
Potential for Replication	Full potential of replication although adapting to each profile and house features (also specific conditions regarding cities, climate areas, building materials etc.)	



Table 34. Action WSC1.15-V1: Debt support

WSC1.15-V1	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Valencia	
Country	Spain	
Action	Debt support	
Plan	To deal with the current economic situation of the participant with respect to his/her energy supplier and to give support and advice for that matter	
Subaction	SA1.	Analysis of the current situation of the participant during the first contacts or fixed date
	SA2.	Proposal of most suitable solutions for the participants case, and explanation of available aid, subsidies and necessary steps to be taken
	SA3.	Follow-up and continuous support
Stakeholders Involved	Energy Office (Valencia Clima i Energia) Las Naves	
Period	M18-M27	
Budget & Investments	The expected resources needed for this action comes from the cost of the time spent by the 2 contracted energy coaches for the implementation of the program	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of households supported in their debt problems, i.e., receiving some kind of subsidy or negotiating debt splitting (100% of households coming with debt problems) - 64 (%50)
Risks & Mitigation Measures	Risk 1.	Participants debts hinder their ability to take control over energy tariffs in the short term
	Mitigation Measures 1.	Still haven't faced this situation.
	Risk 2.	Participants have already received debt support from Social Services
	Mitigation Measures 2.	Participants that have already received debt support do not need to ask for it again as their situation was improved with the previous intervention.
Barriers	Political	Debt support provided by social services. In order to continue with debt, support it is important to have the support from the municipality to get the funding and depending on the political party they can allocate more or less funding
	Economic	In some cases, we have found debts that are really high and accumulated over time (sometimes years). This is a tricky situation as arrears can carry additional taxes and interests increasing the owed amount.



	Social	The lack of information available about debt support and how it works. Also, hoaxes (i.e. there are people that uses lots of energy and never pays for it, certain collectives getting more payments than others etc.)
	Cultural	In some cases, people feel afraid or ashamed of asking for help
	Technical	How social workers decide which debts to pay and which people are eligible to receive more than one debt payment.
	Environmental	No barriers identified
	Legal	Energy is not yet considered as a social right itself. Also, establish the legal and financial limits of debt support.
Facilitators	Political	Consider "debt support" as an emergency action to address urgent and vulnerable situations. Bring the statistics and successful cases into light. Explain the value of this action and the potential benefits
	Economic	Help people to establish a payment plan with the energy supplier, ensuring there will not be a supply cut. Advise people to always try to pay the olders bills to avoid extra taxes and interests. Encourage people to participate into an energy audit.
	Social	Bring the information about debt support to NGO's and entities working with vulnerable consumers. Fight against hoaxes with official statistics and reports.
	Cultural	Make people understand that neither having debts or asking for help is shameful. Explain participants that sometimes there are issues that impact their bills (bad isolation, climate conditions, old appliances, inadequate tariffs) which are beyond their control - specially if they do not own the house and the owner does not want to renovate. Therefore, debts are not always their fault
	Technical	Stablish an emergency protocol for extreme cases and families in need based on succesful cases and experiences. Also report about unsuccessful cases and lessons learned.
	Legal	Promote the right to energy
	Solution 1.	
Suggestion	(1) Appointments scheduled with the social workers in the municipality in charge of debt support measures. Explained the consequences of energy poverty among people's health and welfare. (2) Developed a partnership agreement to refer cases to WELLBASED and the Energy Office protecting personal data. Finally (3) WELLBASED raised awareness on energy poverty and promoted the right to energy through public campaigns and open days for the right to energy with key stakeholders.	



Expected Impacts	(1) Municipal social workers and other relevant actors from the public administration to demand more budget for debt support. Address situations of extreme and urgent necessity to avoid grid cuts. (2) Build and establish a solid protocol and guidelines to refer cases to the Energy Coaches and the Energy Office for energy audit. (3) Have an impact in the society's mindset towards debt support and energy poverty.
Potential for Replication	1 and 2 can replicate depending on concrete features regarding debt support (municipality internal structure, financial support, administrative and legal conditions, entity in charge...). 3 can fully replicate

Table 35. Action WSC1.16-V1: Bill optimization

WSC1.16-V1	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Valencia	
Country	Spain	
Action	Bill optimization	
Plan	Bill optimization is based on the present and past energy consumption trends and intends to set an adequate pricing	
Subaction	SA1.	Analysis of the current situation of the participant during the first contacts or fixed date
	SA2.	Proposal of most suitable solutions for the participants case, and explanation of available aid, subsidies and necessary steps to be taken
Stakeholders Involved	Energy Office (Valencia Clima i Energia) Las Naves	
Period	M18-M27	
Budget & Investments	Comes from the cost of the time spent by the 2 contracted energy coaches for the implementation of the program	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of bills optimized (128)
	KPI 2.	Number of supporting materials delivered (128)
Risks & Mitigation Measures	Risk 1.	Participants do not retain information about structure of energy bills
	Mitigation Measures 1.	This will be assessed with time and concepts will be reinforced during follow-up and monthly meetings.
	Risk 2.	Bills are already optimized and/or the savings potential by bill optimization is not too big
	Mitigation Measures 2.	For those cases, the intervention focuses on good efficiency habits and the installation of the efficiency kit



Barriers	Political	In order to continue with bill optimization it is important to have the support from the municipality to get the funding and depending on the political party they can allocate more or less funding. Also, the social bonus discount rate might change.
	Economic	If the inflation keeps rising having a negative impact in the economy that would cause more people suffering from energy vulnerability, hence more people that would need to opt. their tariff
	Social	People might be reluctant to change their tariff for multiple scams or energy companies trying to get more benefits from customers taking advantage on the lack of knowledge on the energy companies
	Cultural	Energy culture and awareness started just a few years ago with the raise of prices and the effects of climate change. Traditionally, people seldom paid attention to technical details on the bill and just paid the amount at the end of it.
	Technical	Differences in prior knowledge and multiple backgrounds when explaining the technical details of energy bills.
	Environmental	The general mindset among society that "energy bills" have only an impact in our bank accounts
	Legal	If the data is stored a consent form is needed
Facilitators	Political	Reports about the benefits for vulnerable households currently receiving the social bonus
	Economic	If the economy gets worse more people will have the need of reducing expenses, therefore they will have more interest in understanding their energy bills and looking after discounts/benefits
	Social	Optimize people's bill taking into consideration multiple options that could benefit them. Energy Coaches support them when they can benefit from a company change, specially when they have to switch from the free market to the regulated to apply for the social bonus and discount. Reensure the official contact details for the company they would wish to change.
	Cultural	Continue raising awareness on energy. Explain people the benefits of understanding their own bill in terms of saving both costs and energy. Also, the importance of having an adequate tariff which adapts to their habits and schedules. Adapt energy actions considering each type of market (free vs. regulated). Finally check if the person is eligible for the social bonus and grid protection.
	Technical	With the experience from WELLBASED pilot, we could create a guidance with tips to perform the bill optimization, even a self-audit guidance or provide workshops in the one-stop shops
	Environmental	Expose the intrinsic connection between energy bills and their effects on climate change. Adapt our energy consumption and behavior to be more efficient.
	Legal	Explain that the consent form is a guarantee of people's participation rights under strict protocols. Their bill information is protected and will not be transferred or shared to any energy company or supplier.
Solution 1.		



Suggestion	WELLBASED has prepared leaflets, brochures and materials explaining the basics of the energy market and how to understand bills. With these materials people can carry out their own bill optimization by following a "step by step" guide. They can also check if they are eligible for the social bonus discount. Energy coaches bring these materials to the house interventions and take the time to explain them. These are also available at the Energy Office and website. If they need further support after the intervention, they can call again Energy coaches or schedule an appointment at the Energy Office. Finally, organisation of "understand your bill" workshops.
Expected Impacts	Empower consumers, turn them into "prosumers". Encourage people's proactivity towards their bills and their possibility to have an impact on the energy system. Increase households' savings.
Potential for Replication	Full potential of replication with the materials and the "step by step" guide and "understand your bill" workshop. Appointments at Energy Office depending on availability and facilities at each site.

Table 36. Action WSC1.17-V1: Delivery energy efficiency kit

WSC1.17-V1	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Valencia	
Country	Spain	
Action	Delivery energy efficiency kit	
Plan	A customized energy efficiency kit will be delivered to each household. This kit will allow the participants to improve energy micro efficiency at home, reducing energy bills with very low cost.	
Subaction	SA1.	Fix an appointment with the participant
	SA2.	Install the kit elements together with the participant
	SA3.	Explanation and provision of guidelines for making a great use of the kit
Stakeholders Involved	Energy Office (Valencia Clima Energia)	
Period	M21-M29	
Budget & Investments	Efficiency kit: 40€x 128 households = 5.120€	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of energy kits provided and/or installed (128)
	KPI 2.	Number of information/explanations provided (128)
Risks & Mitigation Measures	Risk 1.	Participants are not used to deal with technical components
	Mitigation Measures 1.	Those who aren't familiarized do understand their characteristics and how to use them by means of thorough explanations and practical, in-site demonstrations from the Energy Coaches.



	Risk 2.	Some elements of the standard energy kit do not cover most of the needs of the participant	
	Mitigation Measures 2.	Kits are often tailored to household needs, even offering extra components and performing some basic electrical works to improve and fix dangerous installations.	
Barriers	Political	In order to continue with the energy kits it is important to have the support from the municipality to get the funding and depending on the political party they can allocate more or less funding	
	Economic	If the inflation keeps rising having a negative impact in the economy that would cause more people suffering from energy vulnerability, hence more people that would need to be audited	
	Social	Some people, specially those living in a rented apartment, are more limited to carry any improvements at their houses. Sometimes there is an existing conflict between landlords and tenants as the first ones do not want to take responsibility of house renovation.	
	Cultural	Some people are not used to fix house issues by themselves thinking that it will be too difficult or too technical	
	Technical	Some kit elements need explanation, specially the timer and the weather stripes. Also, some people do not identify easily where to use or install them	
	Environmental	People do not directly identify the relationship between home efficiency and climate change	
	Legal	If the data is stored a consent form is needed	
	Facilitators	Political	Bring to light those cases with poor living conditions (temperature, humidity, inefficiency...) and explain how kits address an urgent need. This also has a impact in other fields such as economy (more money available) and health (physical, mental, social). Again, promote the right to energy.
		Economic	The energy kit has an impact on reducing the cost of bills, resulting in home savings and more money available for other matters.
Social		At this point, the kit can play a key role into addressing the most urgent needs, specially those related to inefficient lightning and poor isolation. Also, through the kit and the audit, people understand the strong and weak points of their houses so they can adapt their energy behavior and ultimately reduce bills.	
Cultural		Change this mindset and empower people at their homes. Energy coaches break this barrier by providing people with some tips and easy tricks that everyone can put in place without any special needs (tools, technical knowledge).	
Technical		Energy coaches explain one by one all kit elements - purpose, functioning, how to replace it or reprogram - and identify the most suitable place in the house to install it and make the most of it.	



	Environmental	Thanks to the kit, people can adapt their behavior, making it more conscious about energy waste and climate change
	Legal	Explain that the consent form is a guarantee of people's participation rights under strict protocols. If any of the information about the kit or their living conditions comes to light, it will be properly anonymized and used for scientific or awareness purposes.
Solution 1.		
Suggestion	In depth explanation of all kit elements, their installation, allocation, usefulness and how to reuse or reprogramme them. In depth house review and assessment.	
Expected Impacts	Empower users at home, provide them with tools and knowledge to adapt their houses to efficiency. Less energy waste and, overall, better use of it.	

Table 37. Action WSC2.9-V2: Regular community meetings to engage participants and create a sense of group, including spaces of mutual support

WSC2.9-V2	SOLUTION CATALOGUE	
	LAYER 2 SOCIAL AND COMMUNITY NETWORKS	
	PROJECT NAME WELLBASED	
Pilot City	Valencia	
Country	Spain	
Action	Regular community meetings to engage participants and create a sense of group, including spaces of mutual support	
Project website	https://wellbased.eu/	
Barriers	Political	Fundings needed to continue the workshops
	Economic	Some people have to do a lot of effort to go to the meeting point (they do not have car, can't afford a taxi, have bad public transport connection).
	Social	Specific collectives, such as migrants, single parent families, people with reduced mobility, health issues and very vulnerable people, have more difficulties to come to the meetings.
	Cultural	Gathering together and explain one's personal situation is not yet very common.
	Technical	Some workshops can be more technical (i.e. PV panels, energy communities...)
	Legal	Ensure data protection and confidentiality



Facilitators	Political	Organise specific workshops in those neighbourhoods through other channels such as the Energy Office and other NGO's and associations facilities
	Economic	Try to facilitate and conciliate, specially with kids. As people enjoy the workshops, they are invited to often bring more people (friends, family) that are interested on the topics but that is not part of the project. These people can also have the role of assisting or support them at attending.
	Social	The role of the workshop facilitator to create a safe space of sharing
	Cultural	User friendly language and explanations. Use of examples, practical cases and experiences
	Environmental	Participants sign an assistance sheet at the beginning of the session which contains some features such as self-image protection and communications.
Solution 1.		
Suggestion	As the recruitment was extended and there were not many people attending the workshops we did only 1 per month and post-poned the 2nd one until we had more people interested in attending, instead of divide them into 2 workshops with different participants there is one every 2 weeks and all participants are invited	
Expected Impacts	The maximum capacity of the WS is achieved	
Stakeholders	The energy office (from VCE) and LNV	
Potential for Replication	The WS can be replicated, reducing the frequency to 1 per month and inviting everyone in the energy office contact list	

Table 38. Action WSC2.10-V2: Training professionals on the detection of energy poverty

WSC2.10-V2	SOLUTION CATALOGUE
	LAYER 2 SOCIAL AND COMMUNITY NETWORKS
	PROJECT NAME WELLBASED
Pilot City	Valencia
Country	Spain
Action	Training professionals on the detection of energy poverty
Plan	Trainings provided to professionals.
Stakeholders Involved	Energy Office (Valencia Clima i Energia) Las Naves Expert speakers and sessions facilitators
Period	M18 - M28



Budget & Investments	Trainers and facilitators (12 sessions): 2.300€ Training material: 600€ Working time from LNV and VCE teams: 0€ Facilities: 0€	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of courses (12)
	KPI 2.	Number of training sessions (24)
	KPI31.	Number of hours of training (48)
	KPI 4.	Number of attendees/professionals trained (60)
	KPI 5.	Number of sets of training materials (5)
	KPI 6.	Number of stakeholders engaged for the trainings (12)
Risks & Mitigation Measures	Risk 1.	Participants do not understand the technical advice
	Mitigation Measures 1.	To prevent this, a collaborative work with professionals has been designed to develop a guidance easy to understand.
	Risk 2.	Poor attendance at training sessions
	Mitigation Measures 2.	To prevent this, the sessions will be planned with the professionals and given at a convenient place for them to make it easier to attend.

Table 39. Action WSC2.11-V2: Open talks about Energy Poverty, Energy Rights, Energy Efficiency, Health habits, etc.

WSC2.11-V2	SOLUTION CATALOGUE	
	LAYER 2 SOCIAL AND COMMUNITY NETWORKS	
	PROJECT NAME WELLBASED	
Pilot City	Valencia	
Country	Spain	
Action	Open talks about Energy Poverty, Energy Rights, Energy Efficiency, Health habits, etc.	
Project website	https://wellbased.eu/	
Barriers	Political	Depending on the political party on the local government this kind of events could not be of interest
Facilitators	Political	The attendance of politicians and people related with the municipality to the event opened up the debate of right to energy, how to improve the situation of vulnerable consumers. The event strengthens the collaboration between the agents that attended the event.



	Social	As it is an open event organize by multiple actors in the energy sector, it allows to bring multiple people interested in the topic of Right to Energy which makes everyone more aware of the situation that suffer many people in the city
Solution 1.		
Suggestion	Annualized the event to update the different areas of work that are taking place in the city related to Energy poverty	
Expected Impacts	Medium	

Table 40. Action WSC3.7-V3: Citizen campaign for Right to Energy

WSC3.7-V3	SOLUTION CATALOGUE	
	LAYER 3 LIVING AND WORKING CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Valencia	
Country	Spain	
Action	Citizen campaign for Right to Energy	
Plan	Monthly gatherings included in the “Citizen School of Right to Energy” program	
Subaction	SA1.	Finetune sessions’ contents
	SA2.	Confirm venue(s)
	SA3.	Select facilitator(s)
	SA4.	Prepare communication
	SA5.	Plan healthy snacks delivery
	SA6.	Monthly meetings (and evaluation)
Stakeholders Involved	Energy Office (Valencia Clima i Energia) Las Naves Expert speakers and sessions facilitators	
Period	M18-M34	
Budget & Investments	Speakers and facilitators (24 sessions): 6.000€ Coffee, tea, snacks (24 sessions): 1.200€ Communication and merchandising: 1.500€ Art workshop (optional): 3.300€ Working time from LNV and VCE teams: 0€ Facilities: 0€	
Project Website	https://wellbased.eu/	



Key Performance Indicators (KPI)	KPI 1.	Number of meetings organised (Min. 12)
	KPI 2.	Share of participants attending meetings (Min. 90%)
	KPI 3.	Number of meetings per participant (Min. 4 - ideally 10-12)
	KPI 4.	Number of sessions with snacks delivered (Min. 12)
Risks & Mitigation Measures	Risk 1.	Participants do not attend or there are very few people
	Mitigation Measures 1.	Confirmation of assistance was asked in advance.
	Risk 2.	There is a lot of variation of attendance in every session (many in some, very few in others)
	Mitigation Measures 2.	The team will remind in advance and ask for confirmation of participants.
	Risk 3.	People (generally women) cannot attend because they have children care
	Mitigation Measures 3.	Kids were invited to the sessions (2-3 attended) and entertainment materials and games were provided
	Risk 4.	People are not open to share their own experiences
	Mitigation Measures 4.	A professional facilitator with working experience in similar environments ensured good participation of participants.
	Risk 5.	There is not enough interest among participants to do the art workshop or we lack resources to do at the end of the program
	Mitigation Measures 5.	Action has not started. The art session will be adapted to the participants interest, it might be that something artistic is done in each of the sessions.

Table 41. Action WSC4.7-04: Policy advocacy plan

WSC4.7-04	SOLUTION CATALOGUE
	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS
	PROJECT NAME WELLBASED
Pilot Name	Valencia
Country	Spain
Action	Policy advocacy plan



Plan	Promotion of local strategy to fight against Energy Poverty, Generation of protocols, Generation of evidence for monitoring and decision-making.	
Subaction	SA1.	Initial meetings, both internal (LNV, VCE, KVE) and with other involved stakeholders (Urban Local Alliance, Technical Assistance...) to create an action plan
	SA2.	Regular think tanks with related stakeholders addressing: a. What is currently the situation of EP data collection at Valencia city-level; what other data collection sources can be identified? b. What should be the content of the Local Strategy against PE? c. Final definition of protocols (drafted in Action 5) and their dissemination
	SA3.	Allocate tasks and deploy the required actions
Stakeholders Involved	Oficina de la Energía (Valencia Clima I Energia) Las Naves Urban Local Alliance Other institutions still to be defined	
Period	M23- M40	
Budget & Investments	Type of cost Cost (€) R+D+I Technical assistance. 4,000 Core team LNV/VCE working hours: 0 Communication team LNV/VCE working hours: 0 TOTAL: 4,000 We expect his action to cost around 4,000 euros. Note: The budget allocated for the R+D+I Technical assistance will vary depending on the available budget when starting this phase of the project.	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Proposal of basis for Local EP Strategy (1 proposal)
	KPI 2.	Incidence in EP data collection at city level (Min. 2 proposals (Statistics Office of Valencia; Infobarometer))
	KPI 3.	Protocols generated (Min. 3 (for health professionals, teachers and social workers))
Risks & Mitigation Measures	Risk 1.	Possible political change (municipal elections in May 2023) that could affect the interest for a local Energy Poverty Strategy or other political actions from local institutions
	Mitigation Measures 1.	We will try to start this action before the elections and in any case, try to raise interest of relevant stakeholders independently of the party

Table 42. Action WSC4.8-V4: Mapping of available and potential life-enhancing programs and initiatives

WSC4.8-V4	SOLUTION CATALOGUE
	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS



	PROJECT NAME WELLBASED	
Pilot Name	Valencia	
Country	Spain	
Action	Mapping of available and potential life-enhancing programs and initiatives	
Plan	<p>Mapping of available and potential life-enhancing programmes and initiatives, informing and providing with clear guidelines, trying to make them accessible for project participants. Potential actions include:</p> <ul style="list-style-type: none"> • Mapping of aids, subsidies and/or grants for home renovation and appliances substitution, especially those which enable beneficiaries not dealing with financial issues or risks. Part of Next Generation EU funds may be used for house renovation programmes at national, regional and/or local level. These programmes will be thoroughly studied, exploring opportunities for vulnerable households to benefit from them. • Mapping of corporate social responsibility (CSR) initiatives related with Energy Poverty issues. Corporations and other entities related with electrical materials, household appliances, insulators or heating/cooling installations may have CSR programmes useful for vulnerable households at the local level. Mapping and listing of these initiatives could facilitate access for project participants and encourage others to follow their example. • Explore opportunities of participation in related initiatives, such as Energy Communities projects with a Right to Energy approach. The deployment of Energy Communities and other collective energy generation initiatives are foreseen in the mid-term at the city level. Those with a social agenda may be helpful to make clean, cheap energy accessible to vulnerable households. 	
Subaction	SA1.	Continuous mapping of initiatives and opportunities
	SA2.	Transfer to WELLBASED participants who could benefit from them, giving support and advice for the necessary steps to participate.
Stakeholders Involved	Oficina de la Energía (Valencia Clima I Energia) Las Naves	
Period	M18-30 (preparation from M13)	
Budget & Investments	We will need working hours from VCE. More concretely, this task will be allocated to the 2 contracted persons for WELLBASED, who will devote about 10% of their time to that. If needed, communication activities will be covered by LNV and VCE.	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of initiatives and/or opportunities identified (3)
	KPI 2.	Number of households benefiting from them (32 (25%))
Risks & Mitigation Measures	Risk 1.	No significant opportunities are found, or those identified are not compatible with WELLBASED project in the short/mid-term.
	Mitigation Measures 1.	This task is intended to last for the whole duration of the project, if no opportunities are found in the short/mid-term, participants will be always identified as priority groups in the long-term.



	Risk 2.	The identified initiatives cannot cover or benefit every participant of the project, due to financial, administrative or locational restrictions
	Mitigation Measures 2.	This action is foreseen as an extra-intervention potential opportunity to enrich the programme, and won't be offered as part of the standard intervention, so expectations will be managed carefully

2.2.1.7. Skopje (Follower City)

The Solution Catalogue for Skopje, as a follower city, includes several key actions aimed at addressing energy poverty and improving urban health. These actions include conducting general surveys and energy audits, providing education on the proper use of energy and housing, offering training for targeted groups and/or interested citizens, replacing domestic appliances, and running a campaign to raise public awareness of energy poverty.

Table 43. Action WSC1.18-S1: General survey and energy audits

WSC1.18-S1	SOLUTION CATALOGUE	
	LAYER 1 INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME WELLBASED	
Pilot City	Skopje	
Country	North Macedonia	
Action	General survey and energy audits	
Plan	100 households being part of a survey elaborated in WELLBASED project	
Subaction	SA1.	Organizing, presenting and fulfilling questionnaire at a public space, institutions, NGO premises and municipality premises
Stakeholders Involved	NGO's – "Edna mozhe"	
Period	M19-M22	
Budget & Investments	This action will not have any cost from WELLBASED project: We will need facilities and working hours from City of Skopje administration's team which will have no cost for the project. Equally, we will use communication printed material produced in PRELIMINARY ACTION 2: communication campaign.	
Project website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of surveys and energy audit answered (Min 100 answered surveys and energy audits)
	Risk 1.	Willingness of the citizens to take part in the survey



Risks & Mitigation Measures	Mitigation Measures 1.	This risk didn't take place
Facilitators	Social	Previously mapped and established contacts with NGO's and representatives from social services. Personal relations and motivation of the team of the City of Skopje for the realization of activities
	Technical	Providing technical support by providing spaces for organizing meetings with stakeholders. NGO's premises or premises of the City of Skopje
	Environmental	We related this to the cultural aspect. Providing an environment in which participants will feel safe and trustworthy.
	Legal	Compliance with the Law on Protection of Personal Data and related laws and Regulations

Table 44. Action WSC2.13-S1: Education for proper use of energy and housing. Trainings for targeted group or/and interested citizens

WSC2.13-S2	SOLUTION CATALOGUE	
	LAYER 2 SOCIAL AND COMMUNITY NETWORKS	
	PROJECT NAME WELLBASED	
Pilot City	Skopje	
Country	North Macedonia	
Action	Education for proper use of energy and housing. Trainings for targeted group or/and interested citizens	
Plan	Min 2 trainings for the target group (number of the trainings depend on the number of interested)	
Subaction	SA1.	Organizing training (defining a topic, organizing trainers, invitation, necessary materials for realization, hall, refreshment etc.)
	SA2.	Submitting an invitation to potential participants
	SA3.	Collecting presentation, list of participants, minutes of meeting
Stakeholders Involved	Energy Office City of Skopje	
Period	M0 to M18 (being M0 the hypothetical starting month of the program)	
Budget & Investments	Budget will come from other funding sources external to WELLBASED project.	
Project website	https://wellbased.eu/	



Key Performance Indicators (KPI)	KPI 1.	Number of trainings for the target group
Risks & Mitigation Measures	Risk 1.	Lack of interest by the target group (single parents) to be part of the trainings
	Mitigation Measures 1.	Establishing communication with the non-governmental organizations that work with the target group and communication with the participants in the first meeting of the focus group in order to disseminate the goal for realization of the trainings.
Barriers	Political	We expect party determination to be a barrier
	Economic	Time and financial constructions. Finances for travel expenses, Facilitators of the sessions, Food/drinks provider, Communication materials, Facilities, Potential participants have no finances to get to the facilities.
	Cultural	There are cultural differences between communities
Facilitators	Social	Previously mapped and established contacts with NGO's and representatives from social services. Personal relations and motivation of the team of the City of Skopje for the realization of activities, Providing a package of food and hygiene products for participants.
	Environmental	Trainings should be held in spring and/or early autumn due to the facilitated arrival of participants to the training facilities.
Solution 1.		
Suggestion	Communication with the parties that are part of the political scene, which through their communication channels will influence the supporters that Energy poverty doesn't only affect those who are members of a certain party, but that all of us together should engage in the fight against it. Organise trainings near the place of residence of the invited participants	
Expected Impacts	Increased awareness that issues from the fields of economy and society should not be approached according to partisan determination. Increased number of participants in training	
Stakeholders	Government of RNM, Ministries, Local-self government, NGO's, political parties, NGO's, Local- self government, schools	
Potential for Replication	Yes, for countries that are in the same or lower level of recognizing and treating Energy poverty. Yes, for cities with a size as Skopje.	
Relevant Publications	Posters, flyers, local media (TV and radio)	
Solution 2.		
Suggestion	Before starting the pilot all financial issues to be covered by already defined funds	
Expected Impacts	When the funds are defined there will be no risk of implementing the activity	
Stakeholders	Different financial programmes, EU programmes, domestic and foreign grants	



Potential for Replication	Yes, because Skopje has already a defined programme and the application for funds it is easy to fullfil for the potencial programme of funding
Solution 3.	
Suggestion	We are a multi-ethnic state that has gone through numerous processes and is on the path to becoming part of the European family. These processes have enabled us to learn that ethnic identity is not a barrier, but rather an advantage that we should respect. Through communication supported by various stakeholders, we will overcome it.
Expected Impacts	Taking part in the pilot and the trainings by different ethnic groups
Stakeholders	NGO's, local self-government bodies, and various local and national institutions play a crucial role in promoting the idea of energy poverty and fight against it.
Potential for Replication	Yes, for the countries that have some specifics regarding ethnicities.

Table 45. Action WSC3.8-S3: Replacement of domestic appliances

WSC3.8-S3	SOLUTION CATALOGUE	
	LAYER 3 LIVING AND WORKING CONDITIONS	
	PROJECT NAME WELLBASED	
Pilot Name	Skopje	
Country	North Macedonia	
Action	Replacement of domestic appliances	
Plan	To buy or change home appliances	
Subaction	SA1.	Organising appointment with the participants
	SA2.	Examination of households need
	SA3.	Evaluation of the results
	SA3.	Carrying out modernization of the households
Stakeholders Involved	Energy Office City of Skopje	
Period	M0 to M18 (being M0 the hypothetical starting month of the program)	
Budget & Investments	Budget will come from other funding sources external to WELLBASED project.	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of households receiving energy modernization



Risks & Mitigation Measures	Risk 1.	Participant might try to sell the appliances.
	Mitigation Measures 1.	Before handing appliance to the participant Consent will be signed that the appliance will be in their possession in the next 3 years. Controls will be made during the implementation of the program and if is possible until the 3 years period.
Barriers	Economic	Possibilities to finances households needs
	Cultural	Fear from stigmatizing as poor - energy poor and/or economically poor
	Environmental	How people around us see us
Facilitators	Economic	Using energy efficiency appliances less energy bills
	Environmental	Using energy efficiency appliances means less pollution
Solution 1.		
Suggestion	Before starting the pilot all financial issues to be covered by already defined funds	
Expected Impacts	Bigger number of participants to register.	
Stakeholders	Energy Office City of Skopje	
Potential for Replication	High	
Solution 2.		
Suggestion	A campaign to raise awareness that bravery is to step forward and help both yourself and others who are energy poor.	
Expected Impacts	Bigger number of participants to register.	
Stakeholders	Energy Office City of Skopje, local self-government bodies, and various local and national institutions	
Potential for Replication	High	
Solution 3.		
Suggestion	A campaign to raise awareness that bravery is to step forward and help both yourself and others who are energy poor.	
Expected Impacts	Bigger number of participants to register.	
Stakeholders	Energy Office City of Skopje, local self-government bodies, and various local and national institutions	
Potential for Replication	High	

Table 46. Action WSC4.9-S4: Campaign to increase public awareness on energy poverty

WSC4.9-S4	SOLUTION CATALOGUE
	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS



	PROJECT NAME WELLBASED	
Pilot Name	Skopje	
Country	North Macedonia	
Action	Campaign to increase public awareness on energy poverty	
Plan	None	
Subaction	SA1.	Developing (graphic designer) and printing materials
	SA2.	Mapping actors that will give visibility to the problem
	SA3.	Distribution of materials according to the possibility to promote energy efficiency and energy poverty directly to the target group
	SA4.	Creation of information which will be published and posted in social networks
Stakeholders Involved	Energy Office City of Skopje	
Period	M0 to M18 (being M0 the hypothetical starting month of the program)	
Budget & Investments	Budget will come from other funding sources external to WELLBASED project.	
Project Website	https://wellbased.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of printed materials for the campaign to increase public awareness on energy efficiency
Risks & Mitigation Measures	Risk 1.	Number of published and posted information for the campaign to increase public awareness on energy efficiency
	Mitigation Measures 1.	Campaign flyers, posters, written information and posts not being understood or misunderstood by citizens
	Risk 2.	All the materials flyers, posters, written information and posts will be written in a simple language. All the information will be described in words and if is applicable visually will be represented through pictures.
Barriers	Political	We expect party determination to be a barrier
	Economic	If we don't have finances
	Social	Inability to inform the vulnerable groups because they don't constant access to social and electronic media.
Solution 1.		
Suggestion	Posting relevant information's in places where the vulnerable groups are present.	
Expected Impacts	Better sharing of information about the campaign	
Stakeholders	NGO's, Social offices, Schools, kindergartens	
Potential for Replication	Yes, for every city and municipalities	
Relevant Publications	Posters, flyers	



Solution 2.	
Suggestion	Communication with the parties that are part of the political scene, which through their communication channels will support the campaign for Energy poverty
Expected Impacts	Increased awareness regarding Energy poverty and topics that effects like economy and health
Stakeholders	Government of RNM, Ministries, Local-self government, NGO's, political parties
Potential for Replication	Yes, for countries that are in the same or lower level of recognizing and treating Energy poverty
Solution 3.	
Suggestion	Before starting the pilot all financial issues to be covered by already defined funds
Expected Impacts	High visibility of the issues on social media, radio, TV, printing materials, web pages
Stakeholders	NGO's, Energy Office City of Skopje, local self-government bodies, and various local and national institutions
Potential for Replication	Yes, for countries that are in the some or lower level of recognizing and treating Energy poverty

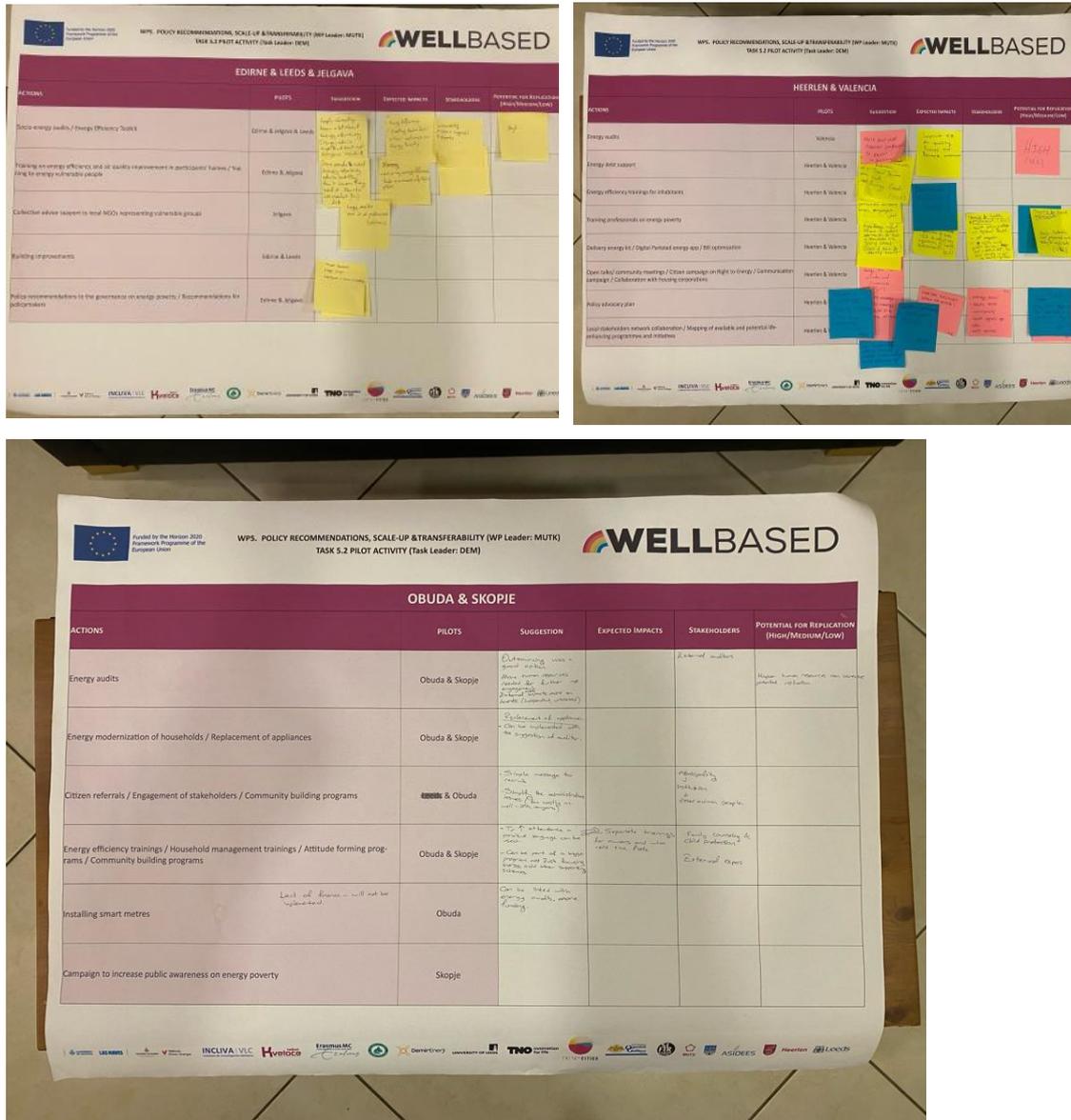


Figure 4. Workshop with WELLBASED pilots on lessons learned from implemented actions

The inputs for the catalogue were discussed in a final workshop. In this workshop, participants were divided into three tables, each focusing on different aspects of the actions implemented by the WELLBASED pilot cities. For each action, suggestions for improvement were discussed, along with the expected impact of these actions on the cities. Additionally, the stakeholders involved in each action were identified, and the potential for replicating these actions in other cities was explored. The goal of the workshop was to gather insights and provide a comprehensive understanding of the effectiveness and scalability of the actions taken by the pilot cities.

2.2.2. Pilot Cities of Urban Health Cluster

A Solution Catalogue workshop was also held with the Urban Health Cluster on October 22, 2024. Four pilot cities from four different projects participated in this workshop: Thessaloniki from the URBANOME project, Tartu from the ENLIGHTENME project, Barcelona from the RECETAS project, and Belgrade from the HEART project (Figure 4).

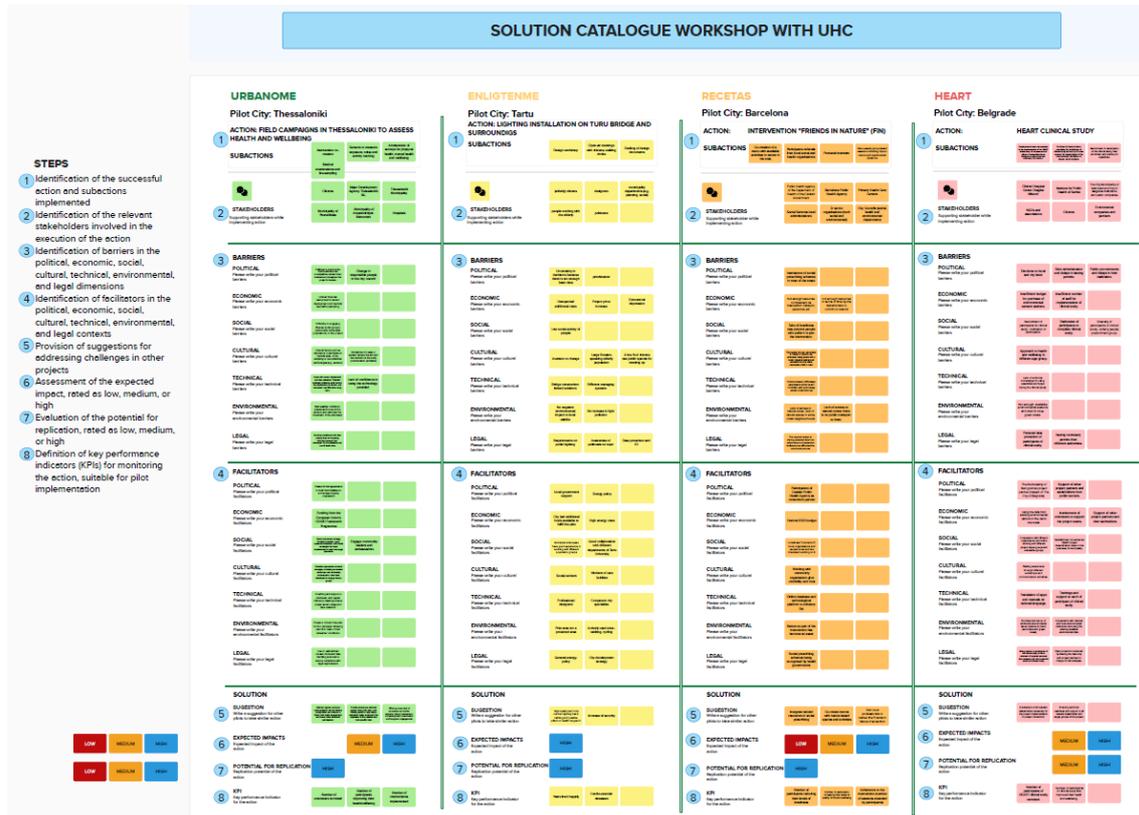


Figure 5. Solution Catalogue Workshop with Urban Health Cluster

The steps followed in the Solution Catalogue workshop are as follows:

- i. Identification of the successful action and subactions implemented
- ii. Identification of the relevant stakeholders involved in the execution of the action
- iii. Identification of barriers in the political, economic, social, cultural, technical, environmental, and legal dimensions
- iv. Identification of facilitators in the political, economic, social, cultural, technical, environmental, and legal contexts
- v. Provision of suggestions for addressing challenges in other projects
- vi. Assessment of the expected impact, rated as low, medium, or high
- vii. Evaluation of the potential for replication, rated as low, medium, or high
- viii. Definition of key performance indicators (KPIs) for monitoring the action, suitable for pilot implementation



Each city shared valuable insights and experiences from their respective projects, fostering a productive exchange of knowledge and best practices. This collaborative effort significantly contributed to enhancing the collective understanding of urban health challenges and the innovative solutions being developed to address them.

The contributions of the “Tartu” pilot who participated in the workshop from the ENLIGHTENME project to the solution catalogue are listed in the table below.

Table 47. Action WSC1.20-U1: Lighting installation on Turu bridge and surroundings

WSC1.20-U1	SOLUTION CATALOGUE	
	LAYER 1	
	INDIVIDUAL LIFESTYLE FACTORS	
	PROJECT NAME ENLIGHTENME	
Pilot City	Tartu	
Country	Estonia	
Action	Lighting installation on Turu bridge and surroundings	
Plan	Idea was to redesign a public lighting near to Turu bridge which is connecting most populated area in the city with city centre. Area is daily actively used by citizens (incl. elderly people). Existing lighting solution was established appr 20 years ago.	
Subaction	SA1.	Design workshop
	SA2.	Open-air meetings with citizens, walking circles
	SA3.	Drafting of design documents
Stakeholders Involved	(elderly) citizens, designers, municipality departments (e.g. planning, social), people working with the elderly, politicians	
Period	January 2023 - February 2024	
Budget & Investments	Total 140 000 €, from this 110 000 € investments	
Project website	https://www.enlightenme-project.eu/	
Key Performance Indicators (KPI)	KPI 1.	Years lived happily
	KPI 2.	Good mental and physical wellbeing
Risks & Mitigation Measures	Risk 1.	Residents do not want to participate in the pilot project
	Mitigation Measures 1.	We did active information work and organized joint events for residents (walking meetings, discussions). We introduced the project to residents through home visits.
	Risk 2.	Financing risks
	Mitigation Measures 2.	We took into account that the installation of lighting could be more expensive than planned and secured a buffer for this.
Barriers	Political	Uncertainty in decisions because there is not enough basic data; prioritization
	Economic	Unexpected additional costs; Project price increase; Economical depression
	Social	Low social activity of people
	Cultural	Aversion to change; Large Russian speaking elderly population; A low % of citizens use public spaces for meeting up



	Technical	Bridge construction limited solutions; Different managing systems
	Environmental	No negative environmental impact to local wildlife; No increase in light pollution
	Legal	Requirements on public lighting; Awareness of politicians on topic; Data protection and IO
Facilitators	Political	Local government support; Energy policy
	Economic	City had additional funds available to fulfil the pilot; High energy costs
	Social	Municipal employees have good experience in working with different population groups; Good collaboration with different departments of Tartu University
	Cultural	Social workers; Workers of care facilities
	Technical	Professional designers; Competent city specialists
	Environmental	Pilot area not a protected area; Actively used area - walking, cycling
	Legal	General energy policy; City development strategy
Solution 1.		
Suggestion	High-quality and cozy outdoor lighting has a calming and positive effect on health long-term	
Expected Impacts	Pleasant city environment will have a positive impact on citizens mental and physical health	
Stakeholders	Municipal servants, politicians, citizens, designers	
Potential for Replication	High	
Solution 1.		
Suggestion	Increase of security	
Potential for Replication	High	

Tartu, the pilot city for the ENLIGHTENME project, participated in the workshop and shared details about a successful initiative aimed at improving quality of life and well-being. Located in Estonia, Tartu implemented the action titled 'Lighting Installation on Turu Bridge and Surroundings.' The sub-actions for this initiative included: a design workshop, open-air meetings with citizens, and the development of design documentation. Key performance indicators (KPIs) for this action were defined as 'Years Lived Happily' and 'Good Mental and Physical Well-being.' During implementation, various risks were identified, including financial and participation risks. Barriers and facilitators were assessed from multiple perspectives, such as political, economic, social, cultural, technical, environmental, and legal angles. The key recommendation for other pilot cities considering a similar action is: 'High-quality, cozy outdoor lighting has a calming and positive long-term effect on health.' This recommendation highlights the lasting impact of well-designed lighting on public health and well-being.



The contributions of the “Thessaloniki” pilot who participated in the workshop from the URBANOME project to the solution catalogue are listed in the table below.

Table 48. Action WSC2.14-U2: Field Campaigns in Thessaloniki to Assess Health and Wellbeing

SOLUTION CATALOGUE	
WSC2.14-U2	LAYER 2 SOCIAL AND COMMUNITY NETWORKS
	PROJECT NAME URBANOME
Pilot City	Thessaloniki
Country	Greece
Action	Field Campaigns in Thessaloniki to Assess Health and Wellbeing
Plan	None
Subaction	SA1. Field campaigns in Thessaloniki to assess Health and wellbeing
	SA2. Sensors to measure exposure, noise and activity tracking
	SA3. Administration of surveys for physical health, mental health and wellbeing
	SA3. Medical examinations and bio-sampling
Stakeholders Involved	Citizens, Major Development Agency Thessaloniki SA, Thessaloniki Municipality, Municipality of PavosMelas, Municipality of Ampelonikipoi Menemeni, Hospitals
Barriers	Political Challenge in ensuring that local authorities and municipalities maintain their involvement throughout the project's duration; Change in responsible people in the city council
	Economic Limited financial resources for sensor deployment and medical exams/bio-sampling
	Social Difficulty in engaging diverse social groups, particularly vulnerable populations, in the project
	Cultural Cultural factors such as reluctance to participate in medical tests, or biosampling or use unfamiliar technologies (e.g., sensors); Sometimes not easy to explain citizens the aim and the methods of the study (communication problems)
	Technical Issues with sensor deployment and data collection: Potential technical problems could arise in the deployment of sensors, and volunteers had difficulties using them; Lack of confidence in using the technology provided
	Environmental Bad weather conditions prevented the use of the sensors and restricted the movement of the volunteers
	Legal Ensuring compliance with data privacy laws and securing informed consent from volunteers for the collection and use of health data
Facilitators	Political Create formal agreements to local municipalities to encourage ongoing cooperation
	Economic Funding from the European Union's H2020 Framework Programme
	Social Broad recruitment strategy involving hospitals, gyms, academic institutions, and media campaigns has been implemented to reach the target population; Engage community leaders and ambassadors
	Cultural Culturally appropriate outreach strategies, including co-creation workshops and community ambassadors, have been developed to engage various groups



	Technical	Coaching and support to volunteers, and regular follow-up meetings ensure proper sensor usage and data collection
	Environmental	Create a robust time-plan for the campaign allowing plan B in case of bad weather conditions
	Legal	Use of well-defined consent forms and data handling protocols to ensure compliance with legal requirements
Solution 1.		
Suggestion	Maintain regular and close communication with all relevant stakeholders and citizens to foster their active engagement and ensure their continued participation.	
Expected Impacts	High	
Potential for Replication	High	
KPI	Number of volunteers recruited	
Solution 2.		
Suggestion	support along with clear, user-friendly guides to help citizen volunteers easily understand the objectives of the activities and their specific roles	
Expected Impacts	Medium	
Potential for Replication	Medium	
KPI	Number of participants improving their health/wellbeing	
Solution 3.		
Suggestion	Offering some kind of incentives can further motivate citizen involvement, increasing both commitment and long-term engagement	
Expected Impacts	Medium	
Potential for Replication	High	
KPI	Number of interventions implemented	

Thessaloniki successfully implemented the action titled 'Field Campaigns in Thessaloniki to Assess Health and Wellbeing.' This action aimed to understand the health and well-being of citizens through various field campaigns. The initiative included field campaigns to assess health and well-being, the use of sensors to measure exposure, noise, and activity tracking, as well as the administration of surveys focusing on physical health, mental health, and well-being. Medical examinations and bio-sampling were also conducted as part of the action. The city carried out this initiative with the support of a wide range of stakeholders, including citizens, the Major Development Agency Thessaloniki SA, the Thessaloniki Municipality, the Municipality of Pavlos Melas, the Municipality of Ampelokipoi Menemeni, and several hospitals. During implementation, various barriers and facilitators were identified. Thessaloniki also shared valuable recommendations for other pilot cities considering similar actions: maintaining regular and close communication with all relevant stakeholders and citizens is essential to encourage active engagement and ensure continued participation throughout the process.



The contributions of the “Barcelona” pilot who participated in the workshop from the RECETAS project to the solution catalogue are listed in the table below.

Table 49. Action WSC3.9-U3: Intervention "Friends in Nature" (Fin)

WSC3.9-U3		SOLUTION CATALOGUE
		LAYER 3 LIVING AND WORKING CONDITIONS
		PROJECT NAME RECETAS
Pilot Name	Barcelona	
Country	Spain	
Action	Intervention "Friends in Nature" (Fin)	
Plan	Deliver FiN intervention to alleviate loneliness and increase quality of life to 316 participants (+18 years old) in low socioeconomic neighbourhoods in Barcelona and other cities from the Metropolitan Area.	
Subaction	SA1.	Co-creation of a menu with available activities in nature in the area
	SA2.	Referral of participants
	SA3.	Personal interview
	SA4.	Nine weekly group-based sessions including trips to nature and psychosocial dynamics
Stakeholders Involved	Public Health agency of the Department of Health of the Catalan Government, Barcelona Public Health Agency, Primary Health Care Centers, Social Services local administrations, 3r sector organisations (both social and environmental), community organisations	
Period	January 2023 - July 2024	
Budget & Investments	Horizon2020 covered the intervention and researchers time, stakeholders participating in the co-creation of the menu and referring participants their own resources.	
Project website	https://www.recetasproject.eu/	
Key Performance Indicators (KPI)	KPI 1.	Number of participants reducing their levels of loneliness
	KPI 2.	Number of participants increasing their levels of quality of life and wellbeing
	KPI 3.	Adherence to the intervention (number of sessions attended by participants)
Risks & Mitigation Measures	Risk 1.	Delays and difficulty of recruitment/referral
	Mitigation Measures 1.	We have increased the number of organisations contacted in each area and the number of communication actions, as well as the time spent on recruitment/referral, starting at the same time as the first co-creation session instead of doing it sequentially.

	Risk 2.	Lack of knowledge on loneliness and how to detect it by stakeholders involved in the referral
	Mitigation Measures 2.	We included an introduction about loneliness in each co-creation session with local stakeholders
Barriers	Political	Inexistence of social prescribing schemes in most of the areas
	Economic	Not enough resources to implement de intervention: transport, personnel, etc.; not enough resources in terms of time by the stakeholders to commit to referral
	Social	Tabu of loneliness may prevent people who suffer it to join the intervention.
	Cultural	Only people who can communicate in Catalan or Spanish can participate, being people with a recent migration background excluded from this social intervention while in need
	Technical	Communication difficulties: participants whom aren't confident with technology (email, smarthphone)
	Environmental	Lack of access to natural zones because of lack of natural spaces in some urban neighbourhoods or there is no public transport to them.
	Legal	The required caution in sharing protected data from referral teams to intervention facilitators has difficulted the recruitment process.
Facilitators	Political	Participation of Catalan Public Health Agency as consortium partner
	Economic	Horizon2020 budget
	Social	Loneliness "momentum", more organisations and people know and are interested working on it
	Cultural	Working with community organisation give credibility and trust
	Technical	Online database
	Environmental	Nature as part of the intervention has become an asset
	Legal	Social prescribing schemes being recognised by health governments
Solution 1.		
Suggestion	Implementation of 15 "Friends in Nature" intervention groups in 12 different areas together with local agents	
Expected Impacts	To alleviate the level of loneliness of participants, increasing their Quality of Life and Wellbeing, as well as their connection to nature.	
Stakeholders	Depends on each area, but mainly: Primary health care centers, local social services, social organisations (NGO's), environmental organisation (nature activities providers), civic centers.	
Potential for Replication	High, the intervention is easily replicable after training professionals as facilitators.	
Relevant Publications	Full publication list: https://www.recetasproject.eu/publications (about: logic model for the intervention, Intervention protocol, health economics analysis protocol, nature dose protocol, etc.)	

Barcelona successfully implemented the 'Friends in Nature' (FiN) intervention, with the primary goal of alleviating loneliness and improving the quality of life for 316 participants aged 18 and older from low socioeconomic neighborhoods in Barcelona and surrounding cities in the Metropolitan Area. The intervention involved several sub-actions, including the co-creation of a menu with available activities in



nature in the area, referral of participants to the program, personal interviews to assess the needs of participants, and nine weekly group-based sessions. These sessions included trips to nature and psychosocial activities designed to foster connections and improve well-being. Several key stakeholders contributed to the success of the action, including the Public Health Agency of the Department of Health of the Catalan Government, the Barcelona Public Health Agency, Primary Health Care Centers, local Social Services administrations, third-sector organizations (both social and environmental), and community organizations. During the implementation, Barcelona defined key performance indicators (KPIs) to measure the success of the intervention. They also identified various barriers and facilitators that impacted the success of the action. Barcelona's key recommendation for other pilot cities with similar interventions is to implement 15 'Friends in Nature' intervention groups across 12 different areas, working closely with local agents. This approach would help expand the program's reach and deepen its impact on more communities.

The contributions of the “Belgrade” pilot who participated in the workshop from the RECETAS project to the solution catalogue are listed in the table below.

Table 50. Action WSC4.10-U4: Heart Clinical Study

WSC4.10-U4	SOLUTION CATALOGUE	
	LAYER 4 GENERAL SOCIO-ECONOMIC, CULTURAL AND ENVIRONMENTAL CONDITIONS	
	PROJECT NAME HEART	
Pilot Name	Belgrade	
Country	Serbia	
Action	Heart Clinical Study	
Plan	None	
Subaction	SA1.	Development of plans and protocols for the implementation of the HEART clinical study for measurement of effects of various Blue-Green Solutions to public health and wellbeing of the citizens.
	SA2.	Purchase of measurements wearables for participants of clinical study and set up of in-situ sensors for measurement of the environmental conditions on chosen demo location
	SA3.	Recruitment of participants of the clinical study, their enrolment and training for wearables.
Stakeholders Involved	Clinical Hospital Center Dragiša Mišović; Institute for Public Health of Serbia; The City Municipality of Stari Grad and City of Belgrade institutions and public companies; NGOs and associations; Citizens; Environmental companies and partners	
Key Performance Indicators (KPI)	KPI 1.	Number of participants of HEART clinical study recruited.
	KPI 2.	Number of participants of clinical study that improved their health and wellbeing
Barriers	Political	Elections on local and city level; Slow administration and delays in issuing permits; Public procurements and delays in their realization.

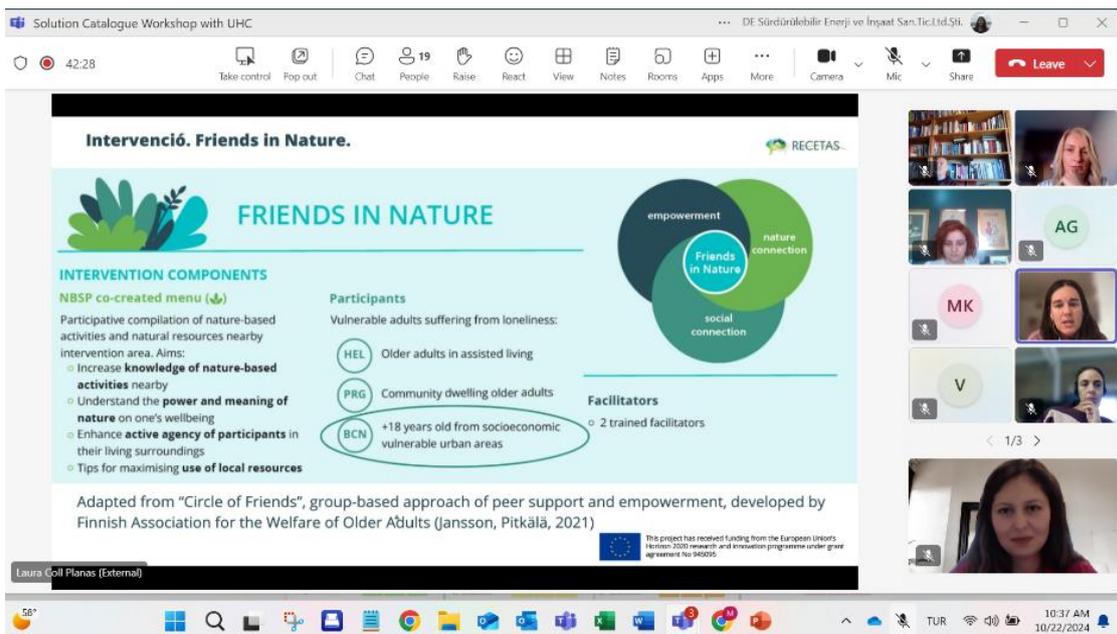


	Economic	Insufficient budget for purchase of environmental sensors stations; Insufficient number of staff for implementation of clinical study
	Social	Recruitment of participants for clinical study - motivation of participants; Dedication of participants to complete clinical study; Diversity of participants of clinical study - elderly people predominant group
	Cultural	Approach to health and wellbeing in different age group
	Technical	Lack of technical knowledge for using wearables and apps during the clinical study
	Environmental	Not enough available environmental stations and data for bluegreen areas
	Legal	Personal data protection of participants of clinical study; Issuing necessary permits from different authorities
	Facilitators	Political
Economic		Using the data from existing environmental stations in the demo site areas; Involvement of volunteers to support the project teams; Support of other project partners and their stakeholders
Social		Cooperation with different organizations and NGOs working with different project target groups and vulnerable groups; Establishment of permanent HEART project dissemination center in the premises of municipality
Cultural		Raising awareness through different workshops and communication activities
Technical		Translation of apps and manuals on national language; Trainings and support to each of participant of clinical study
Environmental		Purchase and set up of additional environmental sensor stations in demo parks (bule and green areas); Cooperation with national and local environmental institutions and using the existing available environmental data
Legal		Giving options to participants of the clinical study to share minimum of required personal data necessary for the successful conduct of clinical study; Data protection is assured by sharing the data only with project partners in charge of their analyse
Solution 1.		
Suggestion	Involvement of all relevant stakeholders necessary for the project implementation in project consortium	
Expected Impacts	Medium	
Potential for Replication	Medium	
Solution 2.		
Suggestion	Ensuring technical reediness and support to all relevant stakeholder and target groups of the project.	
Expected Impacts	High	
Potential for Replication	High	



Belgrade, another pilot city in the Urban Health Cluster, successfully implemented the 'Heart Clinical Study' intervention. This study aimed to measure the effects of various Blue-Green Solutions on public health and the well-being of citizens. The intervention involved the development of plans and protocols for implementing the HEART clinical study, focusing on assessing the impact of Blue-Green Solutions on health and well-being. Additionally, wearable measurement devices were purchased for participants, and in-situ sensors were set up at the selected demo location to measure environmental conditions. Recruitment of participants for the clinical study included their enrolment and training on the use of wearable devices to track health metrics. Belgrade defined two key performance indicators (KPIs) to evaluate the effectiveness of the intervention: the number of participants recruited for the HEART clinical study and the number of participants who experienced improvements in their health and well-being. Throughout the implementation, the team faced several barriers but also identified facilitators that helped ensure the intervention's success. Belgrade's recommendations for other pilot cities considering similar interventions include involving all relevant stakeholders necessary for the project's success, ensuring their participation in the project consortium, and ensuring technical readiness and support for all relevant stakeholders and target groups. This includes providing the necessary tools and knowledge for successful implementation.

The figure below shows screenshots of the workshop held with Urban Health Cluster.



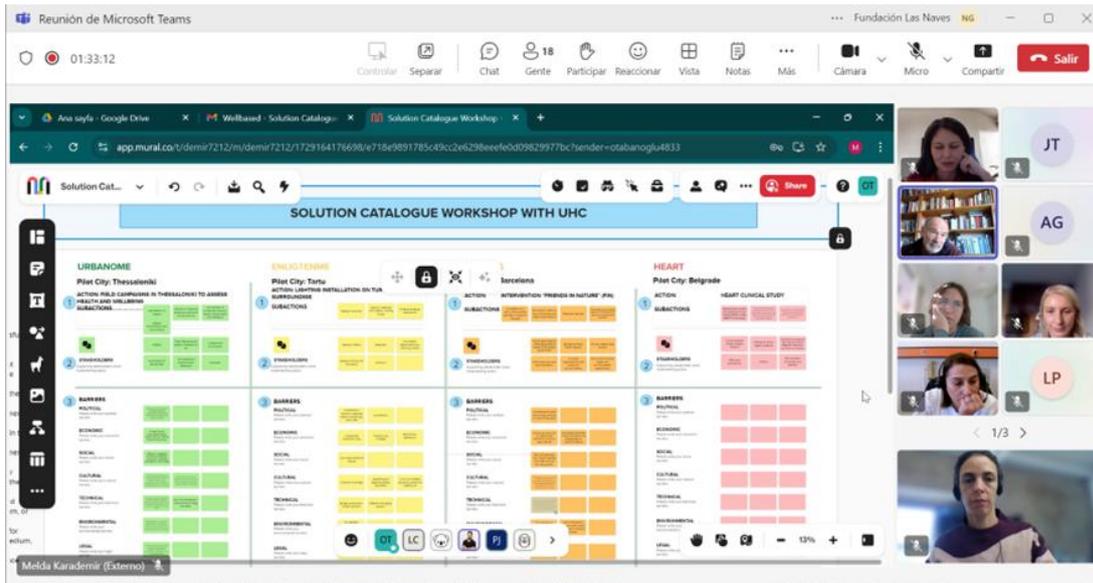


Figure 6. Screenshots from Solution Catalogue Workshop with Urban Health Cluster

2.3. Dissemination Activities

Under Task 5.2, online participation took place in the **Sustainable Places 2024** conference held in Luxembourg from September 23-25, 2024, where the presentation titled 'Replication and Upscaling Methodology for Reducing Energy Poverty' was presented. Additionally, physically participation took place at the **20th International Conference on Urban Health** in Morocco from November 18-21, 2024, where the presentation titled 'Designing Solution Catalogue for Reducing Energy Poverty' was presented.

The **Final Replication Event** took place on Friday, February 14th 2025, with the participation of pilot cities and other UHC cities. This event provided a platform for sharing the progress and outcomes of the WELLBASED project, where cities had the opportunity to contribute their experiences and insights. The main focus of the event was to present a comprehensive summary of the data collected from the cities, which was used to develop the Solution Catalogue as part of the project's objectives. During the meeting, an overview of the project's objectives and the design process of the Solution Catalogue was shared. The Solution Catalogue, a key component of the WELLBASED project, includes valuable information on the actions and strategies implemented by the participating cities. It serves as a reference tool for replicating successful interventions and solutions across urban environments, aiming to improve public health and well-being. Additionally, the event included a presentation of the outcomes of various workshops that were conducted throughout the project. These workshops provided valuable insights and fostered collaboration among the cities, highlighting the challenges and best practices identified during the implementation phase. A general evaluation of the findings obtained from the research and activities conducted during the project was also shared, offering a holistic view of the impact and progress achieved.

3. Findings

This section provides a detailed overview of the findings from the activities conducted under WELLBASED Task 5.2. Section 3.1 outlines the barriers and facilitators encountered during the implementation of actions. In Section 3, solutions and relevant stakeholders are identified based on the layers defined in the Socio-Economic model for action implementation. Section 3.3 categorizes the actions into three main groups, based on the Implementation Plans of the pilot cities as outlined in D3.4. For each group, strategies that are categorized as "definitely recommended", "would improve" and "would not recommend" are presented.

3.1. Barriers and Facilitators of Actions

The findings obtained from the information collected from the six pilot cities and one follower city in the project are grouped under four layers. A summary is presented in the table below. The table includes socio-energy audits and empowerment & training interventions for Layer 1. Community and group activities for Layer 2, building improvement for Layer 3 and policy recommendations for Layer 4 were implemented in the project.

Table 51. Barriers and facilitators encountered while implementing the actions within the scope of the project.

Layer	Action	Barriers	Facilitators
Layer 1	Socio-energy audits	<ul style="list-style-type: none"> ➤ Social: Difficulty experienced due to remote consulting. ➤ Cultural: Difficulty in meeting people. ➤ Legal: Land and building ownership issues. 	<ul style="list-style-type: none"> ➤ Political: Local municipality supports energy efficiency improvements. ➤ Cultural: Provide leaflets on consumer rights during audits.
Layer 1	Empowerment & training interventions	<ul style="list-style-type: none"> ➤ Social: The economic situation makes people less willing to participate in extra activities. 	<ul style="list-style-type: none"> ➤ Political: Local municipality supports energy efficiency improvements. ➤ Legal: Several energy efficiency programs available for individuals.
Layer 2	Community / group activities	<ul style="list-style-type: none"> ➤ Economic: Inflation may impact project budget, affecting events. ➤ Social: Low participant interest in attitude-forming programs. ➤ Cultural: Personal sharing is not yet common. 	<ul style="list-style-type: none"> ➤ Political: Ensure data protection and confidentiality. ➤ Social: Facilitator's role in creating a safe sharing space. ➤ Cultural: Use user-friendly language,



			examples, and practical cases.
Layer 3	Building improvement	<ul style="list-style-type: none"> ➤ Economic: Interventions increased apartment prices, forcing tenants to delay purchase plans and pricing them out. ➤ Social: Scaffolding and renovation noise hinder tenant socializing. ➤ Cultural: Technician and household language must align. 	<ul style="list-style-type: none"> ➤ Political: Support for building improvements. ➤ Environmental: Local government's goal for Carbon Neutrality by 2030, focusing on decarbonizing housing and improving energy efficiency.
Layer 4	Policy recommendations	<ul style="list-style-type: none"> ➤ Cultural: Expert and participant language and education level must align. ➤ Technical: Policymakers have low experience. 	<ul style="list-style-type: none"> ➤ Political: Local municipality supports energy efficiency (joined Covenant of Mayors). ➤ Economic: One-stop shop.

3.2. Solutions and Stakeholders of Actions

This section focuses on the solutions and stakeholders associated with the actions implemented across the pilot cities, as outlined in the Socio-Economic Model. For each action, potential solutions to identified barriers are discussed, along with the relevant stakeholders necessary for successful implementation. These stakeholders include local authorities, community members, private sector partners, and other key actors who play a critical role in addressing the challenges and facilitating the execution of the actions. The section highlights the importance of collaboration and the need for multi-stakeholder engagement to ensure the effectiveness and sustainability of the actions.

Table 52. Solution and stakeholders for the action

Layer	Action	Solution	Stakeholders
Layer 1	Socio-energy audits	<ul style="list-style-type: none"> ➤ Energy audits should be planned according to the suitability of the household 	<ul style="list-style-type: none"> ➤ Local government ➤ Technicians
Layer 1	Empowerment & training interventions	<ul style="list-style-type: none"> ➤ Training must be carried out by professionals. Their interest should be kept high with examples that concern the household 	<ul style="list-style-type: none"> ➤ Local government ➤ Professionals ➤ NGOs



Layer 2	Community / group activities	<ul style="list-style-type: none"> ➤ Attitude forming and community building events might be joined together 	<ul style="list-style-type: none"> ➤ Local government ➤ NGOs
Layer 3	Building improvement	<ul style="list-style-type: none"> ➤ Procedures, mechanical projects, etc. must be fully prepared for building improvements ➤ Ensure communication channels with tenants are set up ahead of any work commencing to ensure everyone is clear about what is happening, how long it will last and what the impact will be 	<ul style="list-style-type: none"> ➤ Local government ➤ NGOs ➤ City Council ➤ Heating system selling companies
Layer 4	Policy recommendations	<ul style="list-style-type: none"> ➤ Conducting workshops with experts in the field for policy development and considering effective ways to convey to decision makers 	<ul style="list-style-type: none"> ➤ Academicians ➤ Local government ➤ NGOs

Each action includes recommendations aimed at assisting pilots involved in other projects to implement similar interventions that reduce energy poverty, particularly by addressing potential barriers. One example is the recommendation to prioritize one-on-one meetings over remote consultancy in socio-energy audits. Additionally, it is crucial that trainers are experts in their respective fields, as this significantly enhances the effectiveness of conveying the subject matter. The trust established between the local government and the pilot site also contributes to the smoother implementation of actions. Pilots have indicated that the solutions have a high potential for replication. Furthermore, it is essential to ensure the active participation of all relevant stakeholders in the process.

3.3. Replication and Upscaling Strategies

The actions defined in D3.4 are primarily categorized under three groups. The first group is audits/empowerment and training interventions, the second group focuses on community/group activities, and the third group involves home renovations and interventions. In these three groups, pilot cities were asked to break down the actions as "definitely recommend," "would not recommend," and "would improve." This information was obtained through a workshop conducted with the pilot cities. The table below provides a summary of the strategies according to the actions.

Table 53. Replication and upscaling strategies of actions

Action	Strategies
Audits / Empowerment and Training Interventions	<ul style="list-style-type: none"> ➤ <u>Definitely Recommend:</u> <ul style="list-style-type: none"> – Having training materials that summarize information about energy efficiency is beneficial. – Involve not only participants in the intervention, but also as many people as possible (e.g., family members, neighbors).



	<ul style="list-style-type: none"> – Provide psychological support during interventions, offering participants the opportunity to share their problems. ➤ <u>Would Improve:</u> <ul style="list-style-type: none"> – Provide clearer information about the type of audit and the expected results. In the future, pre-organize a more complex audit so participants can receive a more official certificate. – Prepare training materials in accessible formats to facilitate easier sharing (both in print and digitally). – Create video materials for distribution. – Introduce the person leading the activity and provide their phone number to ensure participants can respond more easily. ➤ <u>Would not Recommend:</u> <ul style="list-style-type: none"> – Do not organize interventions during working days or working hours, as most participants are not available. – Start the intervention only after confirming with participants that the topic is relevant to them. – Relying on a single method of communication (such as only calling participants) to engage them is not effective.
<p>Community / Group Activities</p>	<ul style="list-style-type: none"> ➤ <u>Definitely Recommend:</u> <ul style="list-style-type: none"> – Identify key venues, resources, and establish a good social structure process. – Implement "all-inclusive" programs that involve families, promoting community building. – Ant. Foaming Programme: Household Management, Energy Efficiency Trainings, Financial Issues, and Energy Efficiency Kits Lending. – Organize recognized community meetings with food in the afternoon, featuring seasonal and local health food, including: <ul style="list-style-type: none"> • Acceptance of children, with facilitators available for them. • Topics: Energy efficiency, how to save on bills, healthy habits, mental health (with external speakers), and allowing participants to choose topics. • Photo exhibition on energy poverty. ➤ <u>Would Improve:</u> <ul style="list-style-type: none"> – Provide personal training instead of group training sessions. – Organize an "Alternative" Hackathon for both the Intervention and Control Groups. – Host open cafes (with drinks and food) to help engage participants. – Broaden the audience for the meetings. – Complement the exhibition with additional events or activities. – Hold less frequent meetings after some time. – Organize meetings in nearby locations. – Use health measurements as part of community programs.



	<ul style="list-style-type: none"> ➤ <u>Would not Recommend:</u> <ul style="list-style-type: none"> – Open Talks / Community Meetings in cafes (as Intervention Group members are often occupied with other problems). – Interventions that included the installation of materials proved to be more efficient. – Activities that require regularity are more effective.
<p>Home Renovations and Interventions</p>	<ul style="list-style-type: none"> ➤ <u>Definitely Recommend:</u> <ul style="list-style-type: none"> – Technical personnel can communicate directly with participants. – Organize regular face-to-face meetings for participants in the Intervention Group. – Provide support to participants in the Intervention Group through local government. – Collect real-time data using sensors. – Assign a specific person for face-to-face discussions. – Collaborate with other local organizations and community groups. ➤ <u>Would Improve:</u> <ul style="list-style-type: none"> – Install heating systems that can burn all types of coal/wood (solid fuel). – Secure additional funding for building improvements/home renovations (including retrofits, etc.). – Establish strong communication with stakeholders such as mukhtars, NGOs, and participants. – Ensure that data sharing is made easier. – Make non-personal data available as open data. – Collaborate with other organizations to identify participants. ➤ <u>Would not Recommend:</u> <ul style="list-style-type: none"> – The heating system should not be installed without obtaining the participant's feedback/comments. – The university can serve as the first point of contact, ensuring that the pace of the intervention is controlled by the project team and not occurring independently.

This deliverable has provided important insights into the interventions, objectives, and methodologies. However, there are certain limitations to consider. Due to the diverse contexts of the pilot cities, not all findings can be generalized to every urban environment, and some interventions may not be fully replicable without adjustments to local conditions. Additionally, while efforts have been made to identify and address barriers, some challenges, particularly those related to local governance, stakeholder engagement, and resource constraints, were difficult to anticipate and mitigate in advance. The findings may therefore not fully capture the complexity of urban health interventions in all settings, and unintended effects, such as disparities in health outcomes or unintended social consequences, should be considered in future applications. These limitations are important to acknowledge to ensure that strategies are refined and adapted appropriately when scaling interventions to different urban contexts.



Unexpected findings have been identified and discussed throughout this deliverable. One notable example is the indication that one-to-one meetings in socio-energy audits are more effective than remote consultancy, which was initially not anticipated. This finding suggests that direct engagement may yield better outcomes in terms of trust-building and information exchange. Additionally, while the replication potential of the interventions is generally high, some challenges related to local governance and stakeholder involvement emerged as unanticipated barriers in certain pilot cities. These findings underscore the importance of adapting strategies to local contexts and engaging all relevant stakeholders from the outset to mitigate potential issues. The implications of these unexpected findings will be carefully considered in the development of future replication strategies.



4. Conclusions

This deliverable has made substantial progress in establishing a structured methodology for scaling and replicating successful urban health and well-being interventions. Through the development of the Solution Catalogue, valuable insights from pilot cities have been documented, capturing key actions, barriers, facilitators, and recommendations for replication. This catalog now serves as a comprehensive resource, offering detailed guidance for other cities seeking to implement similar interventions, particularly those addressing energy poverty and its impact on urban health.

The workshops and collaborative efforts with Urban Health Cluster pilot cities have facilitated the exchange of knowledge and ensured the refinement of the actions identified in the catalog. Additionally, the evaluation of the expected impacts of these interventions, along with the identification of key success factors, further enhances the catalogue's applicability and utility for other cities.

In conclusion, the task significantly contributes to the broader objective of improving urban health by providing evidence-based, actionable strategies for the replication and scaling of successful interventions. The ongoing refinement of the Solution Catalogue, along with the insights derived from barrier and facilitator analyses, establishes a solid foundation for promoting healthier and more resilient urban environments across diverse contexts. The conclusions provide a comprehensive and balanced assessment of both the strengths and weaknesses of the results. The key strengths of this deliverable include the identification of effective interventions, the high potential for replicability across diverse urban contexts, and the creation of a detailed Solution Catalogue, which offers significant value for future urban health initiatives. The engagement of stakeholders and the ability to adapt strategies to local conditions are considered key advantages. However, several weaknesses were identified, particularly in relation to challenges in local governance and inconsistent levels of stakeholder engagement across the pilot cities. Keeping stakeholders continuously involved through regular meetings can be beneficial. These factors have impacted the consistency of implementation and may pose obstacles to the effective scaling of interventions. Despite these limitations, the findings offer valuable insights into improving urban health and addressing energy poverty, with a clear emphasis on the importance of context-specific adaptations and the inclusion of all relevant stakeholders in the process. The conclusions highlight the critical importance of context-specific adaptations in urban health interventions, emphasizing that successful strategies cannot be uniformly applied across diverse environments without considering local governance structures, stakeholder dynamics, and resource availability. Additionally, the conclusions underscore the need for greater stakeholder engagement from the outset, as the effectiveness of interventions is often influenced by the commitment and collaboration of local actors. These insights not only address common challenges in urban health initiatives but also provide actionable recommendations for improving the design, implementation, and scalability of similar interventions in other cities. Local solutions, tips and lessons learnt by pilot cities, extracted from the Solution Catalogue, are also compiled in D5.5. Policy recommendations, and will be made available in WELLBASED website, through a separate policy-brief, for local practitioners and future projects. By identifying these priority issues, all these outputs contribute meaningfully to the broader understanding of how to reduce energy poverty and improve public health.



Annex 1

Table 54. List of actions

Layer	Pilot Name	Action Code	Action Name
Layer 1	Edirne	WSC1.1-E1	Socio-energy audits / Energy efficiency toolkit
Layer 1	Heerlen	WSC1.2-H1	Energy efficiency trainings and advice
Layer 1	Heerlen	WSC1.3-H1	(Energy) dept support
Layer 1	Jelgava	WSC1.4-J1	Training on energy efficiency and air quality improvement in participants' homes
Layer 1	Jelgava	WSC1.5-J1	Educational excursion to the Energy Efficiency Center
Layer 1	Jelgava	WSC1.6-J1	Socio-energy audits
Layer 1	Jelgava	WSC1.7-J1	Energy efficiency toolkit
Layer 1	Leeds	WSC1.8-L1	Socio-energy audits
Layer 1	Obuda	WSC1.9-O1	Energy audits
Layer 1	Obuda	WSC1.10-O1	Areas management
Layer 1	Obuda	WSC1.11-O1	Energy efficiency trainings
Layer 1	Obuda	WSC1.12-O1	Household management trainings
Layer 1	Obuda	WSC1.13-O1	Health improving actions
Layer 1	Valencia	WSC1.14-V1	Socio-energy audits
Layer 1	Valencia	WSC1.15-V1	Debt support
Layer 1	Valencia	WSC1.16-V1	Bill optimization
Layer 1	Valencia	WSC1.17-V1	Delivery energy efficiency kit
Layer 1	Skopje	WSC1.18-S1	General survey and energy audits



Layer 1	Skopje	WSC1.19-S1	Education for proper use of energy and housing. Trainings for targeted group or/and interested citizens
Layer 1	Tartu	WSC1.20-U1	Lighting installation on Turu bridge and surroundings
Layer 2	Edirne	WSC2.1-E2	Training on energy efficiency and air quality improvement in participants' homes
Layer 2	Heerlen	WSC2.2-H2	Training professionals on energy poverty
Layer 2	Heerlen	WSC2.3-H2	Open talks/ community meetings (for the intervention group)
Layer 2	Jelgava	WSC2.4-J2	Training on energy efficiency and air quality improvement in participants' homes
Layer 2	Jelgava	WSC2.5-J2	Educational materials
Layer 2	Jelgava	WSC2.6-J2	Collectives advice support to local NGO's representing vulnerable groups
Layer 2	Obuda	WSC2.7-O2	Attitude forming programs
Layer 2	Obuda	WSC2.8-O2	Community building programs
Layer 2	Valencia	WSC2.9-V2	Regular community meetings to engage participants and create a sense of group, including spaces of mutual support
Layer 2	Valencia	WSC2.10-V2	Training professionals on the detection of energy poverty
Layer 2	Valencia	WSC2.11-V2	Open talks about Energy Poverty, Energy Rights, Energy Efficiency, Health habits, etc.
Layer 2	Skopje	WSC2.13-S2	Education for proper use of energy and housing. Trainings for targeted group or/and interested citizens
Layer 2	Thessaloniki	WSC2.14-U2	Field Campaigns in Thessaloniki to Assess Health and Wellbeing
Layer 3	Edirne	WSC 3.1-E3	Building improvements



Layer 3	Heerlen	WSC3.2-H3	Delivery energy box / Digital Parkstad energy app
Layer 3	Heerlen	WSC3.3-H3	Collaboration with housing corporations
Layer 3	Leeds	WSC3.5-L3	Building improvements
Layer 3	Obuda	WSC3.6-O3	Energy modernization of households
Layer 3	Valencia	WSC3.7-V3	Citizen campaign for Right to Energy
Layer 3	Skopje	WSC3.8-S3	Replacement of domestic appliances
Layer 3	Barcelona	WSC3.9-U3	Intervention "Friends in Nature" (Fin)
Layer 4	Edirne	WSC4.1-E4	Policy recommendations to the governance on energy poverty
Layer 4	Heerlen	WSC4.2-H4	Policy advocacy plan (Parkstad level)
Layer 4	Heerlen	WSC4.3-H4	Communication campaign
Layer 4	Heerlen	WSC4.4-H4	Local stakeholders network collaboration
Layer 4	Jelgava	WSC4.5-J4	Recommendations for policymakers
Layer 4	Obuda	WSC4.6-O4	Engagement of stakeholders
Layer 4	Valencia	WSC4.7-O4	Policy advocacy plan
Layer 4	Valencia	WSC4.8-V4	Mapping of available and potential life-enhancing programs and initiatives
Layer 4	Skopje	WSC4.9-S4	Campaign to increase public awareness on energy poverty
Layer 4	Belgrade	WSC4.10-U4	Heart Clinical Study



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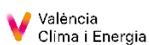
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