D.6.3 WELLBASED exploitation strategy

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List of acronyms

- CA - CA
- DX.X - deliverable X.X
- EP- EP
- GDPR - General Data Protection Regulation
- GA - GA
- H2020 - Horizon 2020
- IPR - Intellectual Property Rights
- KER(s) - key exploitable results
- KVC - Kveloce
- MS.X – Milestone X
- OA - Open Access
- SIB - Social Impact Bond
- UFM - Urban Financial Metabolism
- WP - Work Package
- WUPs - WELLBASED Urban Programmes

Executive summary

The Deliverable 6.3 (**D6.3) WELLBASED Exploitation Strategy,** outlines a common framework and strategy for exploiting the results and knowledge generated by the project. This aims to enhance the scalability and sustainability of WELLBASED outcomes over time, thus ensuring they provide long-term benefits to society after project completion in February 2025.

The document details the WELLBASED Key Exploitable Results (KERs), along with their respective exploitation strategies and the individual exploitation plans for each partner. Furthermore, the Hackathons, are presented in this deliverable, including their organisation and results.

The D6.3 is structured as follows:

Chapter 1 – Introduction to the WELLBASED project which provides a brief explanation about the WELLBASED objectives.

Chapter 2 - Introduction to the deliverable where the objectives and scope of the current deliverable are described.

Chapter 3 – WELLBASED overall exploitation approach, this section defines the methodology applied in the project's exploitation process, including the legal framework, the approach taken to identify the exploitation results of WELLBASED, and the organisation of hackathons as part of its open innovation strategy.

Chapter 4 – Exploitation strategy, this section provides a high-level view of the 8 project KERs (1. Policy recommendations, 2. Methodology for the definition of the WELLBASED Urban Program (WUP), 3. Pilots implementation kit: how to implement the WUP, 4. Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance, 5. WELLBASED Data for secondary use, 6. Results on EP and its effects, 7. Research on new financial models for EP, and, 8. Research skills development), and summarizes exploitation pathways for each partner through an individual exploitation plan.

Chapter 5 – Results from the Hackathons, this section presents key information resulting from the execution of the Hackathons, including participant numbers, organisational dynamics, and main conclusions.

Chapter 6 – Conclusions this section draws the conclusions of the exploitation strategy and highlights the crucial points.

References and Annexes – with the legal references and Hackathon outcomes.

1. Introduction to WELLBASED project

1.1 Objectives of the WELLBASED project

WELLBASED addresses Horizon 2020 Call: SC1-BHC-29-2020 – Innovative actions for improving urban health and wellbeing – addressing environment, climate and socioeconomic factors. The project aims to design, implement, and evaluate a novel, comprehensive urban programme, based on the social ecological model, to significantly reduce Energy Poverty, EP, and its effects on the citizen's health and wellbeing. The programme was implemented and evaluated in six different pilot cities (Valencia – Spain, Heerlen - The Netherlands, Edirne – Turkey, Jelgava – Latvia, Obuda – Hungary, and Leeds – United Kingdom).

2. Introduction to the deliverable

2.1 Deliverable objective and scope

D6.3 aims to define a common framework and strategy for the exploitation of the results and knowledge generated by the project. Its aims to scale-up these results over time, ensuring their sustainability with long-term benefits to society.

This document is prepared by (KVC) alongside with the key contributions of the project partners and is the result of task 6.4 of Work Package (WP) 6 "Exploitation, innovation and business models development". The exploitation approach has been structured in a way to maximize the impact through the assessment of the project main Key Exploitable Results (KERs) and designing an ad hoc strategy for their utilization beyond the project life. The report intends to pave the way to create an exploitation roadmap of these KERs and to design a strategy for its deployment and sustainability. At the same time, a comprehensive legal framework aimed at the exploitation of the results generated by the project has been prepared to address all the legal concerns, data protection issues, and to facilitate their exploitation at the end of the project.

2.2 Relation to other WPs and deliverables

D6.3 is closely related to all the technical and transversal WPs of the project, as the results and knowledge gained in all of them have been considered in the exploitation strategy. In addition, the deliverable is complemented by the information collected in the Hackathons that partners reported in the Milestone 13 "Hackathon events organised in each city". Therefore, D6.3 is strongly linked to the WPs and deliverables, presented in Table 1.

WP	Deliverable	Description
WP2	D2.1	Report on public policies and interventions to reduce EP (Leader: VIC)
	D2.2	General framework of the urban programme (Leader: VIC)
	D2.3	Seven adapted urban programmes (Leader. VIC)
	D2.4	Report from the focus group created (Leader: TNO)
WP3	D3.1	Implementation plan for each pilot site (Leader: VIC)
	D3.2	Midterm recruitment report (Leader: EMC)
	D3.4	Final report on the implementation of the urban programme (Leader: ASIDEES)
WP4	D4.1	Pilot sites evaluation framework (Leader: EMC)
	D4.2	Intermediate preliminary analysis reports (Leader: EMC)
	D4.3	Final pilot sites analysis report (Leader: EMC)
	D4.5	Qualitative evaluation report (Leader: UNIVLEEDS)
WP5	D5.1	Existing and alternative financing models (Leader: MUTK)
	D5.2	Upscaling and replication strategies (Leader: DEM)
	D5.5	Policy Recommendations (Leader: VIC)
WP6	MS13	Hackathon events organized in each city (Leader: KVC)
WP7	D7.2	WELLBASED Ethical Management Plan (INCLIVA)
	D7.4	WELLBASED Data Management Plan (INCLIVA)

Table 1 Deliverable 6.3 in relation to other WPs and deliverables

3. WELLBASED overall exploitation approach

The exploitation of WELLBASED results and knowledge focuses on transforming them into tangible value and societal impact, representing the principles of open innovation. This approach facilitates the practical application of research findings to foster further innovation and address societal challenges.

Following the principles of open innovation, WELLBASED has successfully fostered a dynamic exchange of ideas, incorporating input from both within the consortium and external contributors. This collaborative approach ensures that different perspectives and expertise are brought together, increasing the breadth and impact of the project's outcomes.

This chapter defines the methodology applied in the project's exploitation process, including the legal framework (section 3.1), the approach taken to identify the exploitation results of WELLBASED (section 3.2), and the organisation of hackathons as part of its open innovation strategy (section 3.3).

3.1 Legal framework essentials

The legal framework aims to create a comprehensive understanding and regulatory framework for leveraging WELLBASED results and managing their use. This is the outcome of a collaborative effort among project partners.

Ensuring compliance with EU legislation in areas such as intellectual property, data protection, and ethical considerations is crucial for the successful exploitation of project results. This compliance is not only a legal obligation but also fundamental to fostering trust, innovation, and sustainability in research and business activities. The WELLBASED legal framework was determined as part of the project management activities during the project; in addition, a specific WP was dedicated to Ethics and Data Protection issues, thus legal framework for the research protocol and related fields (WP7).

The methodology employed to compile this legal framework included the analysis of the wider legal framework governing the research and exploitation of results, with a particular attention to the project outcomes, specifically addressing their adherence to EU legislation. The analysis focused on intellectual property rights (IPR), data protection, and ethical dimensions, identification and categorization of exploitable results and the assessment of partner involvement levels. Moreover, it also aims at providing a set of guidelines for the exploitation of the project results beyond the project's end.

Project Objective:

The WELLBASED project designed, implemented, and evaluated a novel, comprehensive urban programme, based on the social ecological model, to significantly reduce energy poverty (EP) and its effects on the citizen's health and wellbeing. To better define the scope of the legal framework is important to define which of the project outcomes and KERs may need to be regulated and how. Concretely, in this project there are three main aspects which may be subject of a legal regulation and for which compliance with EU legislation is crucial for the successful exploitation of project results:

- Information, data, and materials which according to the CA (CA), or by virtue of law, have been created, used or produced, and will be made available in an Open Access format.
- Information and data which have been generated by the implementation of the project, and which may, but not necessarily, be part of the outcomes of the project or of its KERs and whose regulatory framework needs to include a data protection policy as well as the adherence to the relevant legislation.
- Any aspect of the project, including but not limited to the outputs and KERs which has been created for its preparation and implementation, and which may qualify to be regulated or protected for its originality, sensitivity, confidentiality or potential commercial use.

Open Access (OA):

In 2014, with the launch of Horizon 2020, open access to all peer-reviewed scientific publications became mandatory. In Horizon 2020 open science was defined as the obligation for beneficiaries to ensure "open, free-of-charge access to the end-user" to peer-reviewed scientific publications relating to their results. Such obligation was outlined in article 29.2 of the model GA. Furthermore, in the H2020 Programme "AGA"

(Annotated Model GA - Version 5.2 of 26 June 2019), the Commission clarified the concept at the base of such application adding that "at the very least, such publications [could] be read online, downloaded and printed".

In this context, attached to the aforementioned obligation was not included any accessory duty relating to specific licensing frameworks which, however, it soon became clear that the beneficiaries were heading towards forms of licensing which provide additional rights (such as the right to copy, distribute, search, link, crawl and mine) and, to this end, using Creative Commons or similar licences.

Creative Commons public licenses provide a standard set of terms and conditions that rights holders may use to share material subject to copyright. Within the framework of ensuring the respect of Open Science's principles, the most used license, as well as the most appropriate for this project is the "CC BY". This license enables anyone to distribute, remix, adapt, and build upon the material in any medium or format, even for commercial use, so long as attribution is given to the creator.

In WELLBASED, all scientific publications have been produced and distributed or in any other way rendered available under an Open Access scheme. Repositories (see below) apt to this purpose have been chosen among those offering the highest standards in relation to all the characteristics of Open Access scientific materials.

This approach ensures that all research outputs within WELLBASED project will remain freely accessible to the scientific community and the general public, fostering transparency and knowledge dissemination. In addition to selecting repositories that comply with Open Access principles, all the efforts have been made to ensure the adherence to the most clear and open categorisation of the materials, for instance in the use of appropriate metadata standards to enhance the discoverability and interoperability of the publications. By observing these best practices, the project outputs, not only comply with the Open Science policies but also maximise the impact and reach of the project research.

Intellectual Property Rights (IPR):

Ensuring the alignment with relevant IPR laws safeguards the innovations and ideas generated during the project. This protection encourages creativity and investment by securing the rights of creators and inventors, ensuring they benefit from their work. In particular, the consideration of what the Unitary Patent system (European Commission, 2023) and the Directive on the Enforcement of Intellectual Property Rights (Directive 2004/48/EC) establish, is essential to enable the creators to secure exclusive rights to their inventions, thus fostering innovation by ensuring that they can reap the benefits of their work. Finally, a properly managed intellectual property allows for efficient commercialization strategies. This can include licensing agreements, partnerships, and other forms of technology transfer that can generate revenue and promote further research and development. Ensuring that all intellectual property is adequately protected

and that any potential conflicts over ownership or usage rights are resolved early can prevent costly legal disputes that could delay or derail project outcomes.

The basic set of intellectual protection mechanisms available to enable the transfer of technology and knowledge is listed below. All these protection mechanisms have been studied within the structure of the WELLBASED KERs as well as within the individual exploitation plans, but many of them were ultimately not considered as they are not applicable to the exploitation of the project results.

- Patents: They grant exclusive rights to inventors for a fixed period, typically 20 years, allowing them to exclude others from making, using, or selling the invention without permission. Patents are ideal for protecting novel, non-obvious, and useful inventions.
- Trademarks: Trademarks protect symbols, names, and slogans used to identify goods and services. They help distinguish products from competitors and build brand recognition. Trademarks can be renewed indefinitely as long as they are in use.
- Copyrights: It protects original works of authorship, such as literary, musical, and artistic works. Copyright provides the creator exclusive rights to reproduce, distribute, perform, and display the work, typically for the life of the author plus 70 years.
- Trade Secrets: Trade secrets protect confidential business information that provides a competitive edge. This includes formulas, practices, processes, designs, instruments, or compilations of information. Protection lasts as long as the information remains secret and provides economic value.
- Industrial Designs: Industrial design rights protect the aesthetic aspects of an object, such as its shape, pattern, or colour. This encourages innovation in the design of manufactured goods. Protection usually lasts between 10 to 25 years, depending on the jurisdiction.
- Open Access Licenses: Open access licenses, such as Creative Commons (CC), allow creators to grant public permissions to use their works under specified conditions. CC licenses range from allowing unrestricted use to permitting only non-commercial use with proper attribution. These licenses promote sharing and collaboration while protecting the creator's rights.
- Open-Source Licenses: Open-source licenses apply to software, enabling anyone to use, modify, and distribute the software freely. Popular open-source licenses include the GNU General Public License (GPL), MIT License, and Apache License. These licenses encourage innovation and collective improvement of software.
- Public Domain Dedication: Creators can choose to dedicate their works to the public domain, relinquishing all their rights and allowing anyone to use the work without restrictions. Tools like Creative Commons Zero (CC0) facilitate this process, promoting maximum dissemination and use of knowledge and creativity.

- Data Sharing Agreements: Data sharing agreements are used to share data among organizations or researchers under agreed terms. These agreements define how data can be used, ensuring that the data provider retains some control while enabling valuable research and collaboration.
- Patent Pools: Patent pools are agreements between multiple patent holders to license their patents to one another or to third parties. This can reduce litigation risks, lower transaction costs, and promote innovation, especially in complex fields like biotechnology and telecommunications.
- Compulsory Licensing: Compulsory licensing allows governments to permit the use of a patented invention without the patent owner's consent under certain conditions, such as public health needs. This ensures that essential innovations remain accessible.
- Fair Use and Fair Dealing: Fair use (or fair dealing in some jurisdictions) allows limited use of copyrighted material without permission for purposes such as criticism, comment, news reporting, teaching, scholarship, or research. This balances the rights of creators with public interest.

Data protection:

Data protection compliance is vital for legal adherence, building trust, ethical responsibility, risk management, data security, international collaboration, safeguarding participant rights, project sustainability, and enhancing project outcomes. Observing the norms contained into the General Data Protection Regulation (GDPR) is critical for all aspects of the project and its outcomes that involve the collection and processing of personal data. Compliance ensures that personal data is handled with the highest standards of privacy and security, protecting individuals' rights and fostering trust among stakeholders (Regulation 2016/679). GDPR compliance also underscores the ethical management of data, including but not limited all cases where it is necessary to obtain informed consent, ensuring transparency, and providing individuals with control over their personal information, thus aligning project activities with ethical standards and societal expectations. Cross-border research collaborations within the EU are enormously facilitated by the compliance with EU standards which provide a harmonized framework for data protection that is recognized and trusted across member states. An additional layer of compliance towards Social Responsibility can be represented by adhering to ethical standards in research, as outlined in the Charter of Fundamental Rights of the European Union that ensures that the project respects human dignity, rights, and welfare. This includes considerations related to privacy, data protection, and informed consent (Charter 2012/C 326/02).

Repositories:

Quantitative data may be distributed and made available using the Zenodo platform. Zenodo platform is hosted in Geneva at CERN (Conseil européen pour la recherche nucléaire) which do not apply the GDPR2016/679, nor the Swiss Data Protection Act (FADP), nor any other national data protection law.

CERN applies solely its own internal data protection framework subject to CERN's special legal status as an Intergovernmental Organization and thus enjoys certain privileges and immunities under international law.

Processing of personal data at CERN is governed by CERN's Operational Circular 11 (OC11) that offers data protection at the same high standards and is comparable to GDPR and FADP. Nonetheless, its peculiar legal framework it is perfectly compatible with the EU legislation and the distribution of materials through Zenodo as an open dissemination research data repository is absolutely in line with the project and EU legislative framework.

All the quantitative data shared, suitable for open dissemination, will be cleared from any sensitive personal data or anonymized to an appropriate degree. Any transferring of personal data to Zenodo will be done under the specific situations as set out in art. 49 of GDPR (e.g. public interest).

In the same way, qualitative data which will be made available through the repository of the University of Leeds, will be treated in accordance with EU legal requirements and standards and eventually distributed with Creative Commons CC-By 4.0 licensed, as described previously.

Legal framework per area:

To ensure that each outcome of the project is framed in the most appropriate way, for the purpose of indicating the applicable legal framework, the main KERs have been carefully analysed one by one. This approach considers the unique nature of each result, considering its specific characteristics, potential applications, and the legal context which could apply. Such an in-depth examination enables a comprehensive understanding of the distinct requirements and challenges associated with each outcome, ensuring that the proposed legal solutions are both relevant and effective.

Based on this detailed evaluation, a specific legal framework has been proposed for each of the project's principal outcomes in section 4.1 below. These tailored frameworks aim to provide a robust foundation for the exploitation of the results, addressing critical issues such as IPRs, dissemination under the Open Science licensing, and considering potential use and safeguard of personal data. Furthermore, for specific Results, it is mentioned the repository were, especially data sets, will be made available. By adopting this customised approach, the project ensures that the legal dimensions of each result are adequately supported, paving the way for their successful use also after the end of the project.

3.2 Identification of the WELLBASED exploitable results

The identification of exploitable results was initiated with a workshop held during the Leeds Consortium meeting in September 2024. The workshop was organised following a preparatory phase in which KVC had prepared a preliminary list of potential exploitable results based on Part B of the GA, in which the most important exploitable outcomes are explained. This list was then emailed to all partners in the days leading up to the event. This proactive approach allowed partners to thoroughly review the initial list, reflect on its content and suggest additional outcomes that they considered to be exploitable.

The workshop itself was a collaborative and interactive session. Using the pre-shared list as a basis, all consortium members engaged in structured discussions to refine, expand, and prioritise the WELLBASED potentially exploitable results. This exercise culminated in a comprehensive and preliminary identification of the project's exploitable results, mainly based on the project deliverables (Table 2). This table covers a wide range of results, which can be summarised as follows:

- Policy recommendations: evidence-based strategies for improving EP and their effects.
- Date sets: comprehensive datasets that capture key information on EP, its determinants, and its impact on health.
- Pilots' best practices: insights into what works in different contexts, offering replicable models for scaling up and adapting interventions.
- Understanding of health implications: holistic understanding of the relationship between EP and health, wellbeing, and other relevant indicators for the project.
- Alternative financial models: study and analysis on the feasibility of applying new financial models to tackle EP.

Development leader	Exploitable Results
VIC	D2.1 Report on public policies and interventions to reduce EP
VIC	D2.2 General framework of the urban programme
VIC	D2.3 Seven adapted urban programmes
TNO	D2.4 Report from the focus group created
VIC	D3.1 Implementation plan for each pilot site
EMC	D3.2 Midterm recruitment report
ASIDEES	D3.3 Intermediary report on the implementation of the urban programme
ASIDEES	D3.4 Final report on the implementation of the urban programme
EMC	D4.1 Pilot sites evaluation framework
EMC	D4.2 Intermediate preliminary analyses reports

EMC	D4.3 Final pilot sites analysis report
INCLIVA	D4.4 Data platform with data report
UNIVLEEDS	D4.5 Qualitative evaluation report
MUTK	D5.1 Existing and alternative financing models
DEM	D5.2 Upscaling and replication strategies
ENC	D5.3 Forum Summary report (First Version)
ENC	D5.4 Forum Summary report (Final Version)
VIC	D5.5 Policy Recommendations
ENC	(M10) Manifesto
KVC	(M13) Hackathons
INCLIVA PILOTS	Lessons learnt at data protection level Lessons learnt at data protection level; challenges in GDPR compliance
PILOTS	Lessons learnt on collaboration between stakeholders within pilots
PILOTS	Lessons learnt on keeping households engaged

Table 2 Preliminary list of WELLBASED exploitable results.

Building on this initial identification of the potentially exploitable results during the Leeds Workshop, a second round of internal consultation was conducted with the project partners to finalise the selection of final exploitable results. The aim of this phase of the process was to refine the list, integrate additional findings and establish a clear exploitation strategy in line with the primary objectives of the project. To ensure comprehensive input from all partners, the following workflow was implemented during this second consultation round:

Completion of an Excel file by partners. Each partner was asked to provide detailed information about the exploitable results in an Excel file. This structured approach facilitated the collection of consistent and comprehensive data, allowing for a thorough analysis of each result's potential.

1. **Bilateral meetings**. In addition to the data collection through the Excel file, bilateral meetings were held with partners. These meetings provided an opportunity for detailed discussions, clarifications, and modifications of the proposed exploitable results, ensuring that all perspectives were considered.
2. **Incorporation of new results**. The consultation process included the identification and addition of new exploitable results that had not been previously recognised during the Leeds Workshop. This ensured that the final list of results was comprehensive and reflective of the full scope of the WELLBASED project's results.
3. **Organisation into Key Exploitable Results (KERs)**. All the exploitable results identified were systematically grouped into KERs. This categorisation enabled a more strategic assessment of their potential impacts and applications.
4. **Evaluation of Exploitation Strategies**. For each KER, an analysis of the most suitable exploitation strategy was undertaken. This included considering the potential for commercial gains versus non-

commercial benefits, and assessing how each result could contribute to further research, education, public policy, or societal well-being.

5. **Assessment of Partners' Intentions for Future Collaboration**. Partners were asked to fill in the Excel file outlining how they intended to collaborate in the future to use the KERs.

As a result of the internal consultation process, a detailed and comprehensive summary table of the final KERs of the WELLBASED project was produced. This table 3. clearly identifies the partner responsible for leading the exploitation of each specific result and, in addition, provides a detailed assessment of the possible exploitation pathways for each result. These pathways are categorised to distinguish between those exploitable results that offer commercial opportunities and those that are intended to bring non-commercial benefits.

One of the main findings of the internal consultation with the partners was that all the KERs identified were classified as non-commercial. In other words, the partners initially only intended to create social value by contributing to the advancement of scientific research, supporting educational initiatives or promoting public welfare and social benefits. However, after the individual exploitation plans were developed with each of the partners, detailing the main exploitation pathways for each KER, it was determined that some of the resources could also be exploited commercially. As a result, Table 3 has been updated to include this new information.

Exploitable number	Name	Type of Exploitation (no, commercial, non-commercial)	Owner	Exploiter/s
D2.1 (KER1)	Report on public policies and interventions to reduce EP	non-commercial.	VIC	ALL
D2.2 (KER 2)	General framework of the urban programme	non-commercial	VIC	ALL
D2.3 (KER 2)	Seven (7) adapted urban programmes	non-commercial	VIC	ALL
D2.4 (KER 2)	Report from the focus group created	non-commercial	TNO	ALL
D3.1 (KER 3)	Implementation plan for each pilot site	non-commercial or commercial	VIC	ALL
D3.2 (KER 3)	Midterm recruitment report (ethics Compulsory deliverable)	non-commercial	EMC	ALL
D3.4 (KER 3)	Final report on the implementation of the urban programme	non-commercial	ASIDEES	ALL
(KER 4)	Lessons learnt on collaboration between stakeholders within pilots	non-commercial or commercial	PILOTS	ALL
(KER 4)	Lessons learnt on keeping household engaged	non-commercial or commercial	PILOTS	ALL
(KER 8)	Know how on performing qualitative interviews with vulnerable groups	non-commercial or commercial	PILOTS	ALL
D4.1 (KER 3)	Pilot sites evaluation framework	non-commercial	EMC	ALL

D4.2 (KER 6)	Intermediate preliminary analyses reports	non-commercial	EMC	ALL
D4.3 (KER 6)	Final pilot sites analysis report	non-commercial	EMC	ALL
(KER 5)	Data for secondary use	non-commercial	ALL, UNIVLEEDS	ALL
D4.5 (KER6)	Qualitative evaluation report	non-commercial	UNIVLEEDS	ALL
(KER 6)	Knowledge on short and mid-term effects of the programme on specific health and well-being indicators	non-commercial or commercial	EMC	ALL
(KER 8)	Knowledge and recommendations for carrying out evidence-based cost-effectiveness analysis.	non-commercial or commercial	KVC	ALL
(KER 8)	Expertise in conducting qualitative interviews with vulnerable groups, providing a framework for engaging with vulnerable populations in a meaningful and ethical way.	non-commercial or commercial	UNIVLEEDS	ALL
(KER 8)	Approach for systematic data collection (tested pilots)	non-commercial or commercial	EMC	ALL
D5.1 (KER 7)	Existing and alternative financing models	non-commercial or commercial	MUTK	ALL
D5.2 (KER 3)	Upscaling and replication strategies	non-commercial or commercial	DEM	ALL
D5.5 (KER 1)	Policy Recommendations	non-commercial	VIC	ALL
(KER 7)	Study and analysis of the SIBs model for EP interventions	non-commercial or commercial	KVC	ALL
(KER 7)	Study and analysis of the UFM models	non-commercial or commercial	TNO	ALL
(KER 8)	Knowledge on challenges & successes of the project	non-commercial or commercial	VIC	ALL
(KER 8)	Knowledge on the development of hackathons, ideas on how to structure collaborative problem-solving events, for example to address EP and health-related or other social challenges	non-commercial or commercial	KVC + PILOTS	ALL
(KER 4)	Lessons learnt at data protection level; challenges in GDPR compliance	non-commercial or commercial	PILOTS	ALL

Table 3 WELLBASED KERs

3.3 Hackathons – identification of new entrepreneurial ideas

The WELLBASED project has also included external consultation through the organisation of hackathons as part of its open innovation strategy.

Hackathons are intensive events, usually held over a short period of time, where participants work together to solve problems, explore innovative ideas and develop creative solutions. In the context of the project, these events served as dynamic platforms for collaboration and creativity, bringing together people from different disciplines and backgrounds to address the pressing issues of EP and health.

Therefore, hackathons were coordinated by KVC and organized by the pilot partners in each of their cities (Valencia, Edirne, Heerlen, Obuda, Leeds, and Jelgava). The implementation of hackathons across these six pilot cities not only extended the reach and impact of the WELLBASED project but also promoted diversity, innovation, and cross-regional cooperation on a European scale. This approach ensured the active involvement and representation of a broad variety of stakeholders, joining local communities, businesses, academic institutions, and governmental bodies to ensure that different perspectives and expertise were incorporated into the problem-solving processes. This inclusive methodology guaranteed that the hackathons were not only creative but also highly relevant to the specific needs of vulnerable populations in each specific city.

The hackathons aimed to achieve the following goals:

- **Raise awareness and engage EU citizens** in tackling significant societal challenges, emphasizing EP and health-related issues.
- **Involve citizens** (local community, researchers, policymakers) to collaboratively co-create and develop new solutions through open innovation.
- **Facilitate the emergence of impactful solutions** addressing the needs of vulnerable populations while fostering innovation and entrepreneurship across Europe.
- **Address the needs of vulnerable populations**, particularly in EP, by fostering innovative solutions.
- **Generate new business models and opportunities** for market penetration, supporting open innovation.
- **Create an enabling environment** for bridging the gap between citizens and innovation through presentations, debates, and workshops.

To ensure the successful execution of the hackathons across the pilot cities, KVC developed a comprehensive document titled *"Guidelines for Organising a Hackathon on Health & EP in Pilot Sites"*[1]. This guideline, made available to all pilot cities on the project's SharePoint, served as a detailed roadmap for organising, implementing, and concluding hackathons. Its primary aim was to standardise the approach while allowing for local adaptability based on the specific conditions of each pilot city. The guideline provided a structured framework for the steps in organising a hackathon:

- Pre-hackathon activities:

This phase set the basis for a well-coordinated and impactful hackathon. It involved setting the overall framework for the event, managing logistics and resources, and developing an engagement and communication strategy. A critical step in the pre-hackathon phase was to clearly identify the specific challenges to be addressed during the event. Similarly, defining the target audiences ensured that the solutions developed during the hackathons would directly address the needs of the most vulnerable populations.

A preparatory workshop was held during the 7th Consortium Project Meeting held in Edirne, Turkey on 7-8 February 2024. This workshop played a crucial role in coordinating the efforts of the pilot cities and setting the basis for the hackathons. Key activities and outcomes of the Edirne Workshop were included:

- **Joint Brainstorming Session**: Representatives from each pilot's city participated in collaborative discussions to initiate the development of their respective hackathon action plans.
- **Challenge Definition**: Participants worked collectively to define the specific EP and health-related challenges that their hackathons would focus on. These definitions were informed by local data and stakeholder consultations conducted by the pilot cities.
- **Stakeholder Mapping**: Each pilot city identified and prioritised the key stakeholders to be engaged in their hackathons. This included representatives from local government, community organisations, businesses, and academic institutions.
- **Communication and Dissemination Strategies**: Pilots started to think about their strategies to promote their hackathons, ensuring broad participation and awareness while addressing region-specific barriers.

[1] Available under request.

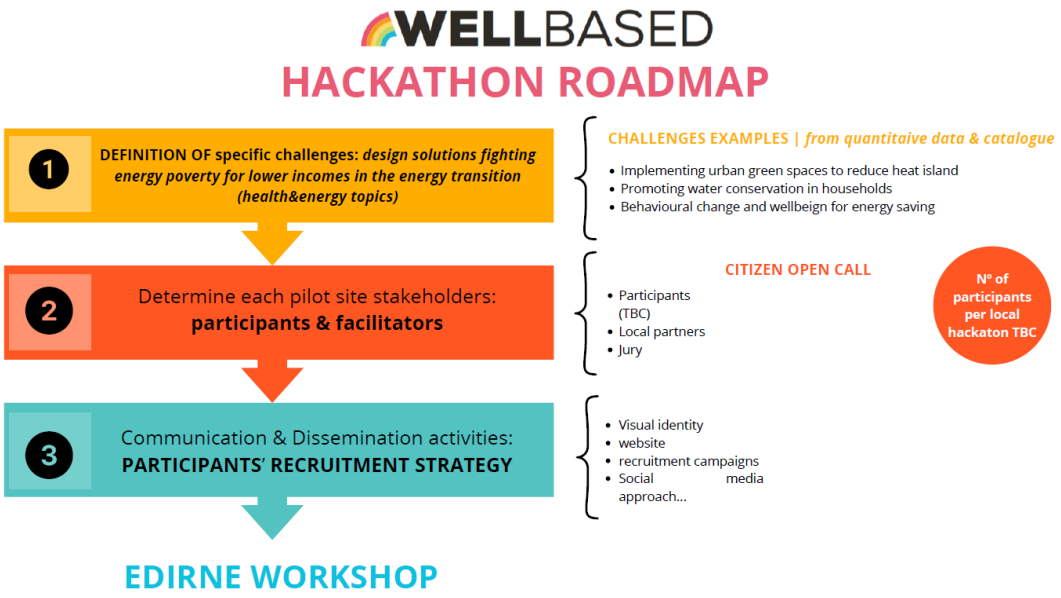

Figure 1 Edirne Hackathons workshop

Based on the collaborative dynamic during the workshop, the WELLBASED cities identified key stakeholders/participants and challenges to be addressed during their respective hackathon events. This identification process was essential in ensuring that the hackathons would focus on local and regional needs, enabling the development of tailored, impactful solutions. The challenges and participants identified were the following (Table 4):

Pilot City	Challenge Definition	Participants
Leeds (England)	How can we support people to make their homes more energy efficient and improve their health without further negative impact on the climate?	Number approx.: 50 in total. Public health officials, municipal building managers, digital solutions experts, and energy professionals. Also, tenants who participated in the WELLBASED project, and students enrolled in the Sustainable Energy Master's program at the University of Leeds.
Valencia (Spain)	Addressing summer EP, particularly its effects on sleep quality, and ensuring clarity in utility bills to alleviate mental health concerns.	Number approx.: 100 in total. Students of master of social cooperation /engineering; biomedical, social assistance, communication/MKT.
Obuda (Hungary)	How to survive the heat wave in the block: heat wave + healthy issues	Number approx.: 30 in total. MKT students, tenants & University of Obuda, health experts, social service.

Heerlen (The Netherlands)	Creating sustainable and socially inclusive housing solutions to enhance overall living conditions and community well-being.	Number approx.: 50 in total. Teachers, parents with kids, other WELLBASED partners, Heerlen Colleagues, social houses corporations
Edirne (Turkey)	Increasing public awareness of EP and efficiency to inform decision-making.	Number approx.: 50 in total. Municipality, citizens in need of intervention, installers

Table 4 Challenges and participants by pilot city, (7th Consortium Project Meeting)[2]

In addition to the identification of stakeholders/participants and challenges addressed in the workshop, several other aspects were carefully included in the guidelines for the preparatory phase to ensure the successful organisation of the hackathons. Below are the key organisational elements included in the guidelines:

- **Evaluation Criteria**: Establishing clear and transparent metrics to assess the ideas and solutions presented during the hackathon.
- **Composition of a Jury**: Selecting a panel of judges with diverse expertise to ensure fair and well-rounded evaluations.
- **Definition of Prizes**: Determining appropriate awards to incentivise participation and recognise outstanding contributions.
- **Registration and Data Protection**: Implementing secure processes for participant registration and ensuring compliance with data protection regulations.
- **Logistics and Resources**: Planning the budget, selecting suitable venues, and creating a detailed schedule for the event.
- **Engagement and Communication Strategy**: Designing a robust strategy to promote the event and ensure effective communication with participants and stakeholders.
- **Participant Recruitment**: Inviting a diverse range of participants, facilitators, and experts to enrich the event.
- **Hackathon Dynamics**: Organising structured presentations, activities, and collaborative sessions to foster creativity and productivity during the hackathon.

[2] The information in this table corresponds to the initial plan drawn up at the Edirne Workshop, which does not necessarily coincide exactly with the final execution of the Hackathon. In the case of Jelgava (Latvia), there is no plan as they were not able to participate in the Workshop, which does not mean that they did not work on the preparation and correct organisation of their Hackathon in other phases.

- During the Hackathon execution

The hackathon itself was a dynamic and collaborative event focused on real-time collaboration, ideation and solution development. The guidelines for this phase also included some key elements to follow for the effective running of hackathons:

- **Opening Session**: Opening ceremony to set the tone for the event and inspire participants. Consider inviting speakers or industry experts to share their ideas and perspectives on the hackathon theme or challenge.
- **Conduct workshops and sessions**: Organise a series of workshops and sessions throughout the hackathon to provide participants with valuable learning opportunities and support their project development process. Offer workshops on relevant topics such as ideation techniques, prototyping tools, coding skills and presentation techniques. Facilitate brainstorming sessions, design sprints and team building activities to foster collaboration and creativity among participants.
- **Manage logistics**: Efficiently manage logistics throughout the hackathon to ensure smooth operations and a positive participant experience.
- **Run social media**: Maintain an active presence on social media platforms throughout the hackathon to engage participants, stakeholders, and the wider community.
- **Award criteria**: Organise an engaging awards ceremony to recognise and celebrate the achievements of participants and teams.
- **Closing ceremony**: Conclude the hackathon with a closing ceremony to reflect on the event's accomplishments and express appreciation to participants, stakeholders, and organisers. Deliver closing remarks to summarize key takeaways.

- Post- Hackathon activities

For closing the work of the hackathons, the guidelines included several suggestions to ensure a thorough, reflective and productive conclusion to the event:

- **Thank-you emails and feedback forms:** Send personalized thank-you emails to participants, stakeholders, sponsors, volunteers, and other contributors who supported the hackathon. Include a feedback form or survey to gather insights, suggestions, and reflections on participants' experiences, event organisation, and areas for improvement. Use this feedback to inform future hackathon planning and enhance the overall participant experience.
- **Reports on the results and conclusions of the Hackathons:** Compile comprehensive reports on the results and conclusions of the hackathons to document and communicate their impact.

Summarise the projects developed, the highlights, the challenges and the lessons learnt during the event, following the templates provided in the guidelines.

- **Dissemination of results:** Maximize the impact of the hackathon outcomes by disseminating the results and findings through diverse channels to reach a wider audience.

By following these key post-hackathon activities, the WELLBASED project ensured that the momentum generated by the hackathons was not lost, and that the innovative solutions that were generated were given the support and attention necessary for long-term success and impact.

4. Exploitation strategy

Following the WELLBASED KERs presented in Table.3, this section examines each of them in detail and outlines the strategy for their potential exploitation. It provides an in-depth analysis of the practical applications of the project results and describes how these can be effectively implemented in real-world contexts. The idea is to shape a comprehensive roadmap to ensure that these results or knowledge gained reach their intended audience and have maximum impact on society.

The section is divided into two main objectives:

1. To define in detail the KERs and their applicable legal framework (4.1), and
2. To elaborate the Individual Exploitation Plans for the project partners (4.2).

By comprehensively addressing these two objectives, this section establishes a clear, actionable strategy for the exploitation of the project's results, and it will ensure that the WELLBASED project's results are effectively transferred from research to practice.

4.1 Joint exploitable plans and applicable legal framework for WELLBASED KERs

As mentioned in the section 3.2, the potentially exploitable results of the project have been organised into KERs to facilitate a more strategic assessment of their potential and applicability. These KERs are:

KER.1 Policy recommendations,

KER.2 Methodology for the definition of the WELLBASED Urban Program (WUP),

KER.3 Pilots implementation kit: how to implement the WUP,

KER.4 Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance.

KER.5 WELLBASED Data for secondary use,

KER.6 Results on EP and its effects,

KER. 7 Research on new financial models for EP, and

KER.8 Research skills development.

The following extract from the KER definition also served as the basic structure for the implementation of ad hoc joint exploitation activities within the WELLBASED C&D activities. These activities were usually carried out under the WELLBASED brand to enable knowledge transfer and to bridge the gap between innovation and project target groups as a preliminary step to the exploitation plans to facilitate the uptake of results within these exploitation routes.

While the efforts of the partners have been focused on the development of their individual exploitation roadmaps (section 4.2), they may also be interested in the joint exploitation of some of these KERs in the future, and the information presented below may serve as a guide. Therefore, the partners will need to comply with Section 8.2 Joint Ownership of the CA and Article 26.2 of the GA.

- **KER.1 Policy recommendations**

KER	Policy recommendations
Lead owner/s	VIC, ENC
WP/s	2, 5
Description	The formulation of policy recommendations based on project insights holds promise for improving current energy and health policies, offering invaluable guidance. The WELLBASED project has developed a deliverable which contains evidence-based policy recommendations to reduce energy poverty, covering key areas such as governance, training, monitoring and financing. Information is also added to encourage replicability of WUPs. This information is adaptable to different local and regional European contexts, aimed at guiding policymakers, advocacy groups, researchers and similar EU projects in implementing effective and sustainable interventions that reduce health negative effects and enhance the overall quality of life of people suffering from EP.

Key resources	• Report on public policies and interventions to reduce EP (D2.1). Report containing an analysis of public policies on health and energy and of the actions/measures/policies already put in practice in Europe to reduce EP. • Policy Recommendations (D5.5). Report with the policy recommendations elaborated from the project results and the feedback collected from WELLBASED partners, Advisory Board, and other related stakeholders during events and workshops. This document has a section aimed at policy makers (context, challenges, policy gaps and policy recommendations and best practices on how to address EP and its effects on health), another aimed at local practitioners (Tips and lessons learnt from pilots' interventions) and a last one aimed at researchers (Lessons learnt for research and future research topics).
Exploitation ideas	The policy recommendations have multiple potential future uses: **Informing Policy makers from health and energy fields:** - Local Level: Municipal governments and regional health authorities can learn important aspects to consider then implementing an urban program against EP and its effects on health. - National Level: National governments can gain some insights on how to engage health and EP fields to work together against EP - EU Level: The European Union can incorporate these recommendations into broader health and EP policies and frameworks. **Guiding Implementation Strategies and best practices:** - EP local practitioners can use these recommendations to develop and refine their interventions against EP and consider health effects in their planning. **Supporting Research and Innovation**: Researchers can use the identified challenges and evidence-based recommendations to guide future studies. **Dissemination and exploitation by End Energy Poverty Allies and other EU projects.** Additionally, these recommendations can facilitate discussions among stakeholders, including policymakers, EP advocacy groups, healthcare providers, social workers, etc

Applicable legal framework	The D2.1 could be shared under the legal framework applicable to results shared under the open science terms as per what foreseen, inter alia, in the GA, the CA and licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) License. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. No materials will be protected by copyright. The policy recommendations in the D5.5, could fall under the category of project outcomes which may be further used and exploited by the beneficiaries and in particular, policy recommendations could further serve other projects as well as be included in service agreements with private and public bodies in the EU and beyond, it would be advisable that the project partners foresee a Joint Ownership Agreement as per what established in the CA under Section 8. This may take the form of copyright under EU law, which ensures that the expression of ideas, such as the specific wording and presentation of a policy recommendation, is protected. In this case, however, the underlying ideas and concepts themselves are not protected by copyright law. Otherwise, licensing the materials under CC BY-NC-ND license which enables to copy and distribute the material in any medium or format in un-adapted form only, for non-commercial purposes only, and only so long as attribution is given to the creator, in case the beneficiaries would favour an exploitation without profit. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project.

Table 5 KER.1 Policy recommendations

► KER.2 Methodology for the definition of the WELLBASED Urban Program (WUP)

KER	Methodology for the definition of the WELLBASED Urban Program (WUP)
Lead owner/s	VIC, TNO
WP/s	2
Description	The definition of the WUP methodology served as the basis of the project, providing a structured and replicable approach to design urban health programmes aimed at tackling EP. Grounded in the social-ecological model, this methodology provides a comprehensive framework that enables pilot cities to adapt the WUP framework to their specific local context, ensuring its relevance and effectiveness in diverse urban environments. By providing pilot and other cities with this tailored methodology, the WELLBASED project will enable local governments and organisations to design targeted interventions to alleviate EP and improve the health and well-being of their affected populations. This adaptable methodology not only underpins the achievement of the project's objectives but also provides a scalable model for implementation in other cities and regions across Europe.

Key resources	• General framework of the urban programme (D2.2). Report containing a common methodology and the framework for the urban health programmes based on the social ecological model. The report also contains guidelines to adapt the common framework developed to pilot sites (practical guidelines for pilot sites to adapt the concept to their specific contexts • Seven adapted urban programmes (D2.3). Report containing, for each pilot, their concrete urban plans to face EP, pilot-specific indicators to evaluate impact on citizens' health and wellbeing and information on data gathering, use and availability: • Report from the focus group created (D2.4) Report containing, for each pilot, the focus groups that were performed to co-create their interventions. Focus group methodology was common for all pilots; pictures and visual elements were used to make the focus group more suitable for the energy poor target group.
Exploitation ideas	The methodology used to define the WUP has many potentials uses and provides valuable knowledge that can be used in future projects or services: - Create a detailed guidebook on how to design an urban program. - Organize workshops and share case studies with municipalities and other stakeholders participating in EU-level policy discussions to share findings and advocate for policy change. - Provide tailored consultancy. Translating insights from end-user activities into valuable input for municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, general public.
Applicable legal framework	The Key Resources D2.2, D2.3, D2.4, could be shared under the legal framework applicable to results shared under the open science terms as per what foreseen, inter alia, in the GA, the CA and licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) License. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. No materials will be protected by copyright. The above-mentioned Key results, could fall under the category of project outcomes which may be further used and exploited by the beneficiaries and in particular, policy recommendations could further serve other projects as well as be included in service agreements with private and public bodies in the EU and beyond, it would be advisable that the project partners foresee a Joint Ownership Agreement as per what established in the CA under Section 8. This may take the form of copyright under EU law, which ensures that the expression of ideas, such as the specific wording and presentation are protected. In this case, however, the underlying ideas and concepts themselves may not be protected by copyright law. Otherwise, licensing the materials under CC BY-NC-ND license which enables to copy and distribute the material in any medium or format in un-adapted form only, for non-commercial purposes only, and only so long as attribution is given to the creator, in case the beneficiaries would favour an exploitation without profit. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. Consent from data owners will be sought may the non-commercial use of such data should be revised in view of a further commercial exploitation of these Key resources. The framework applicable for

	data protection will remain, *mutatis mutandis*, nonetheless, the one established within the project.

Table 6 KER.2 Methodology for the definition of the WELLBASED Urban Program (WUP)

► KER.3 Pilots implementation kit: how to implement the WUP

KER	Pilots' implementation kit: how to implement the WUP
Lead owner/s	VIC, EMC, ASIDEES, DEM
WP/s	3, 4, 5
Description	This resource is designed to support local teams in translating general framework into practical, site-specific actions to ensure the successful implementation of the programme's objectives in different urban contexts. The implementation kit includes a detailed plan for each pilot site, outlining the necessary adaptations to a general framework and the recruitment strategies tailored to the specific needs of the local population. This ensures that each site can implement the programme effectively, accounting for local conditions and challenges. The kit also provides support for addressing potential obstacles in the recruitment process. It includes a midterm recruitment report, which monitors recruitment progress, identifies challenges, and suggests measures to mitigate any delays. Additionally, the kit includes a structured evaluation framework, which will guide the assessment of pilot site performance. This evaluation framework is complemented by strategies for upscaling and replicating the programme, identifying potential barriers and facilitators to broader application, and outlining a roadmap for extending the programme to additional cities and regions. Thus, the Pilots' Implementation Kit serves not only as a practical tool for the pilots but also as a strategic resource for scaling up the WELLBASED model across Europe, ensuring its sustainability and long-term impact.
Key resources	• Implementation plan for each pilot site (D3.1). Report containing the individual implementation plans in each pilot site including the adaptation of general framework and the recruitment strategy in each pilot site • Midterm recruitment report (D3.2). The report with an overview of recruited subjects by study site, potential recruiting problems and, if applicable, a detailed description of implemented and planned measures to compensate delays in the study subject recruitment. • Final report on the implementation of the urban programme (D3.4). Report with the results of the implementation in the 7 pilot sites (including a recruitment update complementary to D3.2) at the end of the implementation phase. • Pilot sites evaluation framework (D4.1). Plan for WELLBASED pilots' evaluation. • Upscaling and replication strategies (D5.2). Report containing upscaling and replication strategies, identifying barriers and facilitators and defining a roadmap for replication, including a Solutions Catalogue.

Exploitation ideas	The Pilots' Implementation Kit offers several opportunities for practical application and further development to ensure the sustainability and impact of the WUP. These actions are designed to maximise the usefulness of the kit in different contexts and with different stakeholders: **Guiding for effective implementation strategies:** - To create a detailed guidebook or toolkit to guide the organisation of workshops, and exchange of case studies with municipalities and other stakeholders - Guidelines to host webinars and to participate in EU-level policy discussions to share findings and advocate for policy change. **Supporting research and innovation:** - Offering tailored consultancy and technical workshops to address specific implementation challenges faced by stakeholders.
Applicable legal framework	The Key Resources D3.1, D3.2 and D3.4 could be shared under the legal framework applicable to results shared under the open science terms as per what foreseen, inter alia, in the GA, the CA and licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) License. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. No materials will be protected by copyright. The above-mentioned Key results, could fall under the category of project outcomes which may be further used and exploited by the beneficiaries and in particular, policy recommendations could further serve other projects as well as be included in service agreements with private and public bodies in the EU and beyond, it would be advisable that the project partners foresee a Joint Ownership Agreement as per what established in the CA under Section 8. This may take the form of copyright under EU law, which ensures that the expression of ideas, such as the specific wording and presentation are protected. In this case, however, the underlying ideas and concepts themselves may not be protected by copyright law. Otherwise, licensing the materials under CC BY-NC-ND license which enables to copy and distribute the material in any medium or format in un-adapted form only, for non-commercial purposes only, and only so long as attribution is given to the creator, in case the beneficiaries would favour an exploitation without profit. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. Consent from data owners will be sought may the non-commercial use of such data should be revised in view of a further commercial exploitation of these Key resources. The framework applicable for data protection will remain, *mutatis mutandis*, nonetheless, the one established within the project. For the Key Resources D4.1 and D5.2, to ensure that each beneficiary is granted the exploitation of this project results (either directly or indirectly), for (a) using them in further research activities (outside the action); (b) developing, creating or marketing a product or process; (c) creating and providing a service, or (d) using them in standardisation activities, as per the provisions of the GA, this exploitable results can be protected by either a CC BY-SA license which enables to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator, also for commercial use. In any case the remix, adaptation, or build upon the material, must be licensed under identical terms; or notifying the relevant IP offices in the countries of

	exploitation of the ownership of the materials, including the addition of the provision related to the visibility of EU funding as per the GA and the CA In any other case, and in particular when the non-commercial use of the resources would not be the sole purpose, all the provisions for the exploitation of the Key Resources D3.1 – as listed above – will apply.

Table 7 KER.3 Pilots implementation kit: how to implement the WUP

- **KER.4 Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance.**

KER	Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance.
Lead owner/s	VCE, EDM, HEERLEN, OBM, LCC, JDC, VIC, INCLIVA
WP/s	3
Description	WELLBASED has successfully implemented and evaluated pilot interventions in various settings, demonstrating best practices for addressing EP. These pilots provide actionable insights into what works in different contexts, offering replicable models for scaling up and adapting interventions. The knowledge gained on the best practices include innovative approaches to community engagement, such as the regular community meetings: "Berenars Energètics" (València Citizen School Of Right To Energy), trainings for professionals on the detection of EP, EP detection and referral protocol for health professionals, a Municipal Strategy Against EP, Communication Campaign to create awareness on the Right to Energy, Community Health screenings, etc.
Key resources	• Lessons learnt on collaboration between stakeholders within pilots • Lessons learnt on keeping households engaged • Lessons learnt at data protection level; challenges in GDPR compliance

Exploitation ideas	The pilot's implementation activities provided partners with valuable knowledge that can be exploited in future projects or services: **Guide Future Projects and provide consultancy services:** - To engage communities, improve energy efficiency, and implement health-focused interventions, based on the material already developed in D5.5. - To support municipalities and organisations in adopting the proven methodologies from WELLBASED pilots. **Support Stakeholder Collaboration:** - Organising workshops and training sessions to share insights on building and maintaining productive stakeholder networks. - Promoting cross-sector partnerships that integrate energy, health, and social services for holistic solutions to EP. **Enhancing Community Engagement:** - Designing tailored communication strategies to foster trust and participation among target populations. - Creating engagement roadmaps that detail effective approaches for maintaining long-term community involvement. - Sharing case studies and success stories that highlight the impact of sustained engagement on project outcomes. **Informing Policy and Advocacy:** - Participating in policy dialogues and forums to promote the integration of WELLBASED best practices into broader frameworks.
Applicable legal framework	Regarding the Innovative approaches, as part of this result, they could be shared under the legal framework applicable to results shared under the open science terms as per what foreseen, inter alia, in the GA, the CA and licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) License. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. No materials will be protected by copyright. The above-mentioned Key results, could fall under the category of project outcomes which may be further used and exploited by the beneficiaries and in particular, policy recommendations could further serve other projects as well as be included in service agreements with private and public bodies in the EU and beyond, it would be advisable that the project partners foresee a Joint Ownership Agreement as per what established in the CA under Section 8. This may take the form of copyright under EU law, which ensures that the expression of ideas, such as the specific wording and presentation are protected. In this case, however, the underlying ideas and concepts themselves may not be protected by copyright law. Otherwise, licensing the materials under CC BY-NC-ND license which enables to copy and distribute the material in any medium or format in un-adapted form only, for non-commercial purposes only, and only so long as attribution is given to the creator, in case the beneficiaries would favour an exploitation without profit. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. Consent from data owners will be sought may the non-commercial use of such data should be revised in view of a further commercial exploitation of these Key resources. The framework applicable for data protection will remain, *mutatis mutandis*, nonetheless, the one established within the project.

Table 8 KER.4 Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance.

► KER.5 WELLBASED Data for secondary use

KER	WELLBASED Data for secondary use
Lead owner/s	ALL - UNIVLEEDS
WP/s	4
Description	The data collected by the WELLBASED capture mainly information on EP, its determinants and its impact on health. This data serves as a valuable resource for future research, enabling the analysis of determinants and impact of EP and health. By making these data available, WELLBASED contributes to the wider research community and supports evidence-based decision making.
Key resources	Data for secondary use: • Anonymised quantitative data for secondary use in the Zenodo repository. • Qualitative data, after a second layer of pseudo anonymisation, for secondary use in UNIVLEEDS repository secure environment.
Exploitable actions	WELLBASED data provides partners and researchers community with valuable insights that can be used extensively, for example: **Package datasets for research:** - Data-driven insights for urban planning and health policies. **Contributing to Research and Innovation:** - Using the data collected during the project to launch follow-up research studies aimed at e.g. determinants of EP and health and exploring new intervention strategies or refining existing ones. - Partnering with academic institutions to conduct additional studies based on WELLBASED data, exploring the long-term effects of interventions on both health and energy usage patterns.
Applicable legal framework	Quantitative data for secondary use will be stored for public access on the ZENODO platform. The qualitative data will be stored in the UNIVLEEDS (owned by the University of Leeds) repository and will be shared upon request only under a Creative Commons Attribution 4.0 International (CC BY 4.0) License, if not otherwise appropriate. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project.

Table 9 KER.5 WELLBASED Data for secondary use

KER.6 Results on energy poverty and its effects.

KER	Results on EP and its effects
Lead owner/s	EMC, UNILEEDS, KVC, EOG, VIC
WP/s	4
Description	The main results of the WELLBASED project encompass a holistic understanding of the relationship between EP and health, the development of targeted solutions, and the creation of tools to measure and address these challenges. These results highlight the project's interdisciplinary approach, integrating insights from public health, social sciences, and energy studies to deliver impactful and practical outcomes. This KER provides valuable information on the short- and medium-term effects of the programme on specific health and well-being indicators, but also recommendations on the adoption of cost-effective and evidence-based interventions to reduce urban EP, among others.
Key resources	• Intermediate preliminary analysis reports (D4.2). Compilation of the ongoing evaluation results in the pilot sites • Final pilot sites analysis report (D4.3). Report with the compilation of the final evaluation results in the 7 pilot sites • Qualitative evaluation report (D4.5). Report containing the main results emerged during the interviews held to evaluate the intervention
Exploitation ideas	**Sharing Results and Knowledge on Health and Well-Being Effects:** - Publishing academic papers and policy briefs that present the findings on the relationship between EP and health, with recommendations for mitigating the health impacts of energy deprivation. - Organising webinars, conferences, and workshops to share insights on the effects of EP interventions on health outcomes, aimed at healthcare providers, social services, and urban planners. - Engaging in EU-level policy discussions to ensure that the evidence from WELLBASED informs future energy, health, and social policies. **Contributing to Research and Innovation:** - Partnering with academic institutions to conduct additional studies based on WELLBASED data, exploring the long-term effects of interventions on both health and energy usage patterns. **Developing Tools for Measuring EP and its effects:** - Offering advice and materials on the use of these tools to stakeholders, including local authorities, researchers, and social service providers. - Promoting the adoption of these tools by urban health and energy policy makers to monitor progress and outcomes in EP reduction initiatives.
Applicable legal framework	The Key Resources D4.2, D4.3, and D4.5 could be shared under the legal framework applicable to results shared under the open science terms as per what foreseen, inter alia, in the GA, the CA and licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) License. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. No materials will be protected by copyright. The above-mentioned Key results, could fall under the category of project outcomes which may be further used and exploited by the beneficiaries and in particular, policy recommendations could further serve other projects as well as be included in service

	agreements with private and public bodies in the EU and beyond, it would be advisable that the project partners foresee a Joint Ownership Agreement as per what established in the CA under Section 8. This may take the form of copyright under EU law, which ensures that the expression of ideas, such as the specific wording and presentation are protected. In this case, however, the underlying ideas and concepts themselves may not be protected by copyright law. Otherwise, licensing the materials under CC BY-NC-ND license which enables to copy and distribute the material in any medium or format in un-adapted form only, for non-commercial purposes only, and only so long as attribution is given to the creator, in case the beneficiaries would favour an exploitation without profit. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. Consent from data owners will be sought may the non-commercial use of such data should be revised in view of a further commercial exploitation of these Key resources. The framework applicable for data protection will remain, *mutatis mutandis*, nonetheless, the one established within the project.

Table 10 KER.6 Results on EP and its effects.

► KER.7 Research on new financial models for EP

KER	Research on new financial models for EP
Leader/s	MUTK, KVC, TNO
WP/s	5
Description	WELLBASED has made significant contributions to the understanding of alternative financial models aimed at addressing EP. Through comprehensive research and analysis, the project has examined existing financial instruments and explored new and alternative models for funding interventions that tackle EP, and the role of community-driven initiatives in mitigating EP. These studies provide a solid evidence base and open avenues for further exploration in related fields.
Key resources	• Existing and alternative financing models (D5.1). Report containing an analysis of the existing and alternative ways/instruments of funding EP interventions
Exploitation ideas	**Creating training programmes** for local governments and communities to better understand alternative financial tools and mechanisms, enabling them to take an active role in funding and implementing EP solutions: - Offering consultancy services to support municipalities, organisations or entities in the adoption of feasibility studies on SIB applied to social challenges. **Informing Policy Decisions:** - The research findings can guide the development of policies that promote the use of innovative financing models for EP. **Creating a Knowledge Base for Future Research:** - Establishing research collaborations with academic and policy institutions to refine and test new financial models in real-world settings.

Applicable legal framework	To ensure that each beneficiary is granted the exploitation of the project result in the Key Resource D5.1 (either directly or indirectly), for (a) using them in further research activities (outside the action); (b) developing, creating or marketing a product or process; (c) creating and providing a service, or (d) using them in standardisation activities, as per the provisions of the GA, this Exploitable result can be protected by either a CC BY-SA license which enables to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator, also for commercial use. In any case the remix, adaptation, or build upon the material, must be licensed under identical terms; or notifying the relevant IP offices in the countries of exploitation of the ownership of the materials, including the addition of the provision related to the visibility of EU funding as per the GA and the CA. The above-mentioned Key result, could fall under the category of project outcomes which may be further used and exploited by the beneficiaries also for commercial use, for instance, it could be included in service agreements with private and public bodies in the EU and beyond, it would be advisable that the project partners foresee a Joint Ownership Agreement as per what established in the CA under Section 8. This may take the form of copyright under EU law, which ensures that the expression of ideas, such as the specific wording and presentation are protected. In this case, however, the underlying ideas and concepts themselves may not be protected by copyright law. Otherwise, licensing the materials under CC BY-NC-ND license which enables to copy and distribute the material in any medium or format in un-adapted form only, for non-commercial purposes only, and only so long as attribution is given to the creator, in case the beneficiaries would favour an exploitation without profit. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project. Consent from data owners will be sought may the non-commercial use of such data should be revised in view of a further commercial exploitation of these Key resources. The framework applicable for data protection will remain, *mutatis mutandis*, nonetheless, the one established within the project.

Table 11 KER.7 Research on new financial models for EP

► KER.8 Research Skills Development

KER	Research skills development
Leader/s	VIC, EMC, KVC, VCE, DEM, HEERLEN, OBM, LCC, JDC
WP/s	2,3,4,5
Description	The research capacity building component of the WELLBASED project has been essential in developing the skills of project partners to carry out rigorous research, especially in the context of vulnerable groups and EP. Through a combination of qualitative and quantitative methods including pilot testing, WELLBASED partners have developed a broad set of research skills that can be applied to future initiatives. These skills include among others approaches to conducting qualitative interviews with vulnerable populations, systematic data collection methods tested in real-world pilot settings, as well as the identification of key challenges and successes throughout the project lifecycle. In addition, innovative methods such as hackathons were explored and carried out as a platform for external consultation on the project's main theme.

Key resources	Key research skills acquired include: • Expertise in conducting qualitative interviews with vulnerable groups, providing a framework for engaging with vulnerable populations in a meaningful and ethical way. • Approaches to systematic data collection, based on findings and methods tested in pilot projects. Evaluating impact of interventions. • Knowledge of challenges and successes, enabling future researchers and practitioners to avoid common pitfalls and build on effective strategies. • Knowledge and recommendations for carrying out evidence-based cost-effectiveness analysis. • Knowledge on the development of hackathons, ideas on how to structure collaborative problem-solving events, for example to address EP and health-related or other social challenges.
Exploitation ideas	The research skills development has many potential future uses and provides valuable knowledge that can be used in future projects o services. **Enhancing Future Research Methodologies:** - Integrating lessons learned in ongoing training programs for researchers on qualitative interviewing techniques and engaging vulnerable groups in ethical and impactful research. - Integrating lessons learned in ongoing training programs for systematic data collection, building on the tested methods used in the WELLBASED pilots to improve data reliability and consistency in future studies. - Publishing/ Integrating lessons learned in ongoing training programs best practice guides on integrating mixed methods, such as qualitative and quantitative approaches, into research focused on social inclusion, EP, and health. **Facilitating the Replicability of Research Models:** - Providing advisory services to entities looking to replicate the WELLBASED methodology in other regions or projects. - Integrating lessons learned in ongoing training programs for researchers to train new researchers and practitioners on how to implement the research strategies tested during WELLBASED, enabling them to achieve comparable results in other settings. **Contributing to Policy Development and Advocacy:** - Organising policy forums and expert panels to discuss the implications of WELLBASED research skills for future social, health, and energy policies.

Applicable legal framework	To ensure that each beneficiary is granted the exploitation of this project results, and these Key Resources, (either directly or indirectly), for (a) using them in further research activities (outside the action); (b) developing, creating or marketing a product or process; (c) creating and providing a service, or (d) using them in standardisation activities, as per the provisions of the GA, this Exploitable result can be protected by either a CC BY-SA license which enables to distribute, remix, adapt, and build upon the material in any medium or format, so long as attribution is given to the creator, also for commercial use. In any case the remix, adaptation, or build upon the material, must be licensed under identical terms; or notifying the relevant IP offices in the countries of exploitation of the ownership of the materials, including the addition of the provision related to the visibility of EU funding as per the GA and the CA. Any personal data which may need to be treated according to the GDPR will be processed under the same framework established in the WELLBASED project.

Table 12 KER.8 Research Skills Development

4.2 Individual exploitation plans for the project partners

The elaboration of exploitation plans involves guiding partners to develop their own overall strategies detailing how they will use the project results, either jointly or independently. The plans are essential for maximising the impact and return on investment of the project results, fostering innovation and ensuring that each partner benefits from its participation in the project.

The individual exploitation plans presented in this section are tailored to each partner's unique objectives and capabilities, and their detailed approaches to integrating the project results into their respective operations or business models.

4.2.1 VIC Exploitation Plan

Exploitable Key Result	Exploitation goals	Target group	Main exploitation routes
KER 1 - Policy recommendations	To inform policy makers and support the decision-making about EP and health in the Valencian context.	Advocacy groups and policymakers from the energy, health, housing and related sectors. Researchers and local practitioners from similar EU projects on urban health.	Inform health and energy policy makers at local, national and EU level about important issues to consider when implementing an urban EP programme and its impact on health. Dissemination and promotion to other EU projects, local practitioners, researchers and EU policy makers in the field of EP and health. Use the policy recommendations to guide future research and innovation projects that the VIC may undertake.
KER 2 -Methodology for the definition of the WELLBASED Urban Program (WUP)	To provide a comprehensive framework that enables pilot cities to adapt the WUP framework to their specific local context, enabling Spanish local governments and organisations to design targeted interventions to alleviate EP and improve the health and well-being of their affected populations.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators.	Organize workshops and share case studies with municipalities and other stakeholders. Participate in EU-level policy discussions to share findings and advocate for policy change. Replication of the WUP in other projects.
KER 3 - Pilots' implementation kit: how to implement the WUP	To transfer knowledge on large-scale pilot implementation in vulnerable areas in Spain for urban health research. To promote evidence-based decision-making through data insights. To lead in developing holistic approaches for urban challenges. To strengthen community participation in energy and health initiatives. To enable replication of successful interventions across Europe.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders to guide effective implementation strategies. Participate in EU-level policy discussions to share findings and advocate for policy change. Replication of the WELLBASED WUP implementation in other projects in which VIC may take part.

KER 4 - Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance.	To transfer knowledge on large-scale pilot experiences in vulnerable areas of Spain for urban health research. To underline the importance of a multi-disciplinary in energy and health initiatives. To strengthen community engagement in energy and health initiatives. To enable replication of successful interventions across Europe.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders to address specific implementation challenges (share lessons learned about GDPR compliance, households' engagement, etc). Participate in EU-level policy dialogues and forums to promote the integration of WELLBASED best practices into broader frameworks. Promote the creation of cross-sector partnerships that integrate energy, health, and social services for holistic solutions to EP. Disseminate the results of the project among the Valencian institutions involved in the implementation of the project, as well as with the City Council.
KER 6 - Results on EP and its effects	To deliver high quality evidence on the experience of EP in six European cities, with a specific focus on the links between EP and health, and on the ways in which people respond to interventions.	International research community; EU, national, regional and local governments and organisations working on EP	Participate in EU-level policy discussions to ensure that the evidence from WELLBASED informs future energy, health, and social policies. Disseminating results to the academic community working on EP through academic publications. Organize workshops, and share case studies with municipalities and other stakeholders Use of the knowledge to deepen the subject or for future research projects acquired by the VIC.
KER 8 - Research skills development	To transfer the lessons learnt from the project into ongoing and new projects or similar initiatives to improve research skills.	International research community, academic institutions, international nonprofit organizations, EU-funded project consortia	Organise policy forums and expert panels to discuss the implications of WELLBASED research skills for future social, health, and energy policies. Incorporate lessons in other projects in which VIC may take part. Use the knowledge gained from running a hackathon to learn how to structure collaborative problem-solving events to address societal challenges in other projects or initiatives.

Table 13 VIC Exploitation Plan

4.2.2 VCE Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 4 - Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance.	To transfer knowledge on large-scale pilot experiences in vulnerable areas of Spain for urban health research. To underline the importance of a multi-disciplinary in energy and health initiatives. To strengthen community engagement in energy and health initiatives. To enable replication of successful interventions across Europe.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders to address specific implementation challenges (share lessons learned about GDPR compliance, households' engagement, etc). Promote the creation of cross-sector partnerships that integrate energy, health, and social services for holistic solutions to EP. Create engagement roadmaps that detail effective approaches for maintaining long-term community involvement Disseminate the results of the project among the Valencian institutions involved in the implementation of the project, as well as with the cities with which the City Council has direct contact and are open to development in the field of social, health and environmental issues.
KER 8 - Research skills development	To transfer the lessons learnt from the project into ongoing and new projects or similar initiatives to improve research skills.	International research community, academic institutions, international nonprofit organizations, EU-funded project consortia	Incorporate lessons learned into ongoing programmes for the research community on engaging vulnerable groups in ethical and impactful research. Organising policy forums and expert panels to discuss the implications of WELLBASED research skills for future social, health, and energy policies. Use the knowledge gained from running a hackathon to learn how to structure collaborative problem-solving events to address societal challenges in other projects or initiatives.

Table 14 VCE Exploitation Plan

4.2.3 INCLIVA Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 4 - Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance.	To transfer knowledge on large-scale pilot experiences in vulnerable areas of Spain for urban health research. To underline the importance of a multi-disciplinary in energy and health initiatives. To strengthen community engagement in energy and health initiatives. To enable replication of successful interventions across Europe.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders to address specific implementation challenges (share lessons learned about GDPR compliance, data collection). Disseminate the results of the project among the Valencian institutions involved in the implementation of the project, as well as with the City Council.

Table 15 INCLIVA Exploitation Plan

4.2.4 KVC Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 1 - Policy recommendations	To inform policy makers and support the decision-making about EP and health in the Valencian context.	Advocacy groups and policymakers from the energy, health, housing and related sectors. Researchers and local practitioners from similar EU projects on urban health.	Participate in specific national and international conferences to disseminate them among policy and decision makers. Use the policy recommendations in other projects in where KVC may take part. Reinforce the technical skills of the KVC team and profile for new consultancy services or research projects.
KER 6 - Results on EP and its effects	To deliver high quality evidence on the experience of EP in six European cities, with a specific focus on the links between	Research community, public administration, healthcare and social care entities and practitioners CSOs	Disseminating results to the academic community working on EP through academic publications.

	EP and health, and on the ways in which people respond to interventions.		Use of the knowledge to deepen the subject or for future research projects where KVC may take part.
KER 7 - Research on new financial models for EP	To foster the know-how and to research into the SIBs potential	Public administrations, private entities: financial bodies, insurance companies, etc. Risk investors, healthcare and social care entities	Participate on workshops and events focusing on new funding models for social challenges, promoting knowledge exchange between interested actors or informing policy decisions. Strengthen the technical competencies and profile of the KVC team for new consultancy services on SIBs or the establishment of new research collaborations.
KER 8 - Research skills development	To integrate the lessons learnt from the project into ongoing and new projects or initiatives to improve research skills.	International research community, academic institutions, international nonprofit organizations, EU-funded project consortia	Incorporate lessons learned on the integration of mixed methods, such as qualitative and quantitative approaches, or techniques to engage vulnerable populations in research focusing on social inclusion, EP and health in future projects involving KVC. Incorporate the lessons learned from organising a hackathon into consultancy services or other projects in which KVC is involved. Incorporate lessons learned on how to carry out a cost-effectiveness analysis into consultancy services or other projects in which KVC may take part. Provide advisory services to entities looking to replicate the WELLBASED methodology in other regions or projects. Reinforce the technical skills and profile of the KVC team for new consultancy services or the establishment of new research collaborations.

Table 16 KVC Exploitation Plan

4.2.5 EMC Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 3 - Pilots' implementation kit:	To transfer knowledge on large-scale pilot implementation in vulnerable areas in Spain for urban health research.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project	Offer tailored consultancy and technical workshops to address specific implementation challenges faced by stakeholders.

how to implement the WUP	To promote evidence-based decision-making through data insights. To lead in developing holistic approaches for urban challenges. To strengthen community participation in energy and health initiatives. To enable replication of successful interventions across Europe.	consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Participate in EU-level policy discussions to share findings and advocate for policy change. Replication of the WELLBASED WUP implementation in other projects in which EMC may take part.
KER 6 - Results on EP and its effects	To deliver high quality evidence on the experience of EP in six European cities, with a specific focus on the links between EP and health, and on the ways in which people respond to interventions.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, general public.	Participating in EU-level policy discussions to ensure that the evidence from WELLBASED informs future energy, health, and social policies. Publishing academic papers and policy briefs that present the findings on the relationship between EP and health, with recommendations for mitigating the health impacts of energy deprivation. Joining with academic institutions to conduct additional studies based on WELLBASED data, exploring the long-term effects of interventions on both health and energy usage patterns.
KER 8 - Research skills development	To integrate the lessons learnt from the project into ongoing and new projects or initiatives to improve research skills.	International research community, academic institutions, international nonprofit organizations, EU-funded project consortia	Offer advice and materials on the use of the tools for measuring EP and its effects to stakeholders, including local authorities, researchers, and social service providers. Promote the adoption of the use of the tools for measuring EP and its effects by urban health and energy policy makers to monitor progress and outcomes in EP reduction initiatives. Integrate lessons learned on how to carry out a cost-effectiveness analysis in other projects in which EMC may take part. Integrate lessons learned in ongoing training programs for systematic data collection, building on the tested methods used in the WELLBASED pilots to improve data reliability and consistency in future studies.

			Integrate lessons learned in ongoing training programs best practice guides on integrating mixed methods, such as qualitative and quantitative approaches, into research focused on social inclusion, EP, and health. Integrate lessons learned in ongoing training programs for researchers to train new researchers and practitioners on how to implement the research strategies tested during WELLBASED, enabling them to achieve comparable results in other settings.

Table 17 EMC Exploitation Plan

4.2.6 EDM Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 4 - Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance.	To transfer knowledge on large-scale pilot experiences in vulnerable areas of Turkey for urban health research. To underline the importance of a multi-disciplinary in energy and health initiatives. To strengthen community engagement in energy and health initiatives. To enable replication of successful interventions across Europe.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders to address specific implementation challenges (share lessons learned about GDPR compliance, households' engagement, etc). Promote the creation of cross-sector partnerships that integrate energy, health, and social services for holistic solutions to EP. Create engagement roadmaps that detail effective approaches for maintaining long-term community involvement Disseminate the results of the project among the Turkish institutions involved in the implementation of the project, as well as with the cities with which the City Council has direct contact and are open to development in the field of social, health and environmental issues.
KER 8 - Research skills development	To transfer the lessons learnt from the project into ongoing and new projects or similar initiatives to improve research skills.	International research community, academic institutions, international nonprofit organizations, EU-funded project consortia	Incorporate lessons learned into ongoing programmes for the research community on engaging vulnerable groups in ethical and impactful research.

			Organising policy forums and expert panels to discuss the implications of WELLBASED research skills for future social, health, and energy policies. Use the knowledge gained from running a hackathon to learn how to structure collaborative problem-solving events to address societal challenges in other projects or initiatives.

Table 18 EDM Exploitation Plan

4.2.7 DEM Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 3 - Pilots' implementation kit: how to implement the WUP	To transfer knowledge on large-scale pilot implementation in vulnerable areas for urban health research. To promote evidence-based decision-making through data insights. To lead in developing holistic approaches for urban challenges. To strengthen community participation in energy and health initiatives. To enable replication of successful interventions across Europe.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders to guide effective implementation strategies. Participate in EU-level policy discussions to share findings and advocate for policy change. Replication of the WELLBASED WUP implementation in other projects in which DEM may take part.

Table 19 DEM Exploitation Plan

4.2.8 UNIVLEEDS Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 5 - Data for secondary use	Making the qualitative data available to other researchers interested in the lived experience of EP (through Research Data Leeds)	International research community	Data sharing through Research Data Leeds.
KER 6 - Results on EP and its effects	To deliver high quality evidence on the experience of EP in six European cities, with a specific focus on the links between EP and health, and on the ways in which people respond to interventions.	International research community; EU, national, regional and local governments and organisations working on EP.	Disseminate results to the academic community working on EP through academic publications. Disseminate results through UNIVLEEDS links with policymaker and practitioner networks. Organize workshops, and share case studies with municipalities and other stakeholders Joining with academic institutions to conduct additional studies based on WELLBASED data, exploring the long-term effects of interventions on both health and energy usage patterns.
KER 8 - Research skills development	To integrate the lessons learnt from the project into ongoing and new projects or initiatives to improve research skills. Writing up a data collection and analysis method for a paper.	International research community, academic institutions, international nonprofit organizations, EU-funded project consortia	Disseminate results to the academic community working on EP through an academic publication. Organise policy forums and expert panels to discuss the implications of WELLBASED research skills for future social, health, and energy policies. Incorporate lessons learned into future projects which UNIVLEEDS may take part.

Table 20 UNIVLEEDS Exploitation Plan

4.2.9 TNO Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 2 - Methodology for the definition of the WELLBASED Urban Program (WUP)	To show how co-creation can be adopted with people experiencing EP	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, general public	Create a detailed guidebook or toolkit, organize workshops, and share case studies with municipalities and other stakeholders. Provide tailored consultancy. Participating in EU-level policy discussions to share findings and advocate for policy change. Replication in other projects.
KER 7 - Research on new financial models for EP	To foster the know-how and to research into the UFM potential	Public administrations, private entities: financial bodies, insurance companies, etc. Risk investors, healthcare and social care entities	Participate on workshops and events focusing on new funding models for social challenges, promoting knowledge exchange between interested actors or informing policy decisions. Strengthen the technical competencies and profile of the TNO team for new consultancy services on UFM or the establishment of new research collaborations.

Table 21 TNO Exploitation Plan

4.2.10 ENC Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 1 - Policy recommendations	To reach a wider group of local, territorial and national stakeholders and inform them about policy recommendations related with EP and health in the EU context.	Advocacy groups and policymakers from the energy, health, housing and related sectors. Researchers and similar EU projects on urban health.	Dissemination in relevant conferences and events with local, regional and national policy makers. Embed parts of the WELLBASED policy recommendations into 2025 EU policy work and sensitising our members during the Annual Forum. Use the policy recommendations in future research projects in which ENC may take part.

Table 22 ENC Exploitation Plan

4.2.11 EOG Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 6 - Results on EP and its effects	To deliver high quality evidence on the experience of EP in six European cities, with a specific focus on the links between EP and health, and on the ways in which people respond to interventions.	Municipalities, smart city agencies, health institutions, academic institutions, international associations of health professionals, EU-funded project consortia, housing associations, ESCO, technology developers, smart city initiatives	Participate in EU-level policy discussions to ensure that the evidence from WELLBASED informs future energy, health, and social policies. Organize workshops, and share case studies with stakeholders Publishing academic papers and policy briefs that present the findings on the relationship between EP and health in elderly people. Joining with academic institutions to conduct additional studies based on WELLBASED data, exploring the long-term effects of interventions on both health and energy usage patterns.
KER 8 - Research skills development	To make the MPI (and the entire set of indicators) available for other researchers willing to replicate the experimentation in other cities / areas. To underline the importance of a multi-disciplinarity.	Smart city agencies, health institutions, academic institutions, international associations / networks of health professionals, ESCO, technology developers, smart city initiatives, multi-dimensional approach in dealing with such a complex issue like EP and its impact in Health. To think about a new “professional profile” (European Skills/Competences, Qualifications and Occupations - ESCO) linked to EP reduction.	Create interdisciplinary networks. Get involved and set up a WELLBASED follow up project by considering funding other than research (ie: Erasmus Plus for professional profile development).

Table 23 EOG Exploitation Plan

4.2.12 ZDA Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 4 - Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance	To transfer knowledge on large-scale pilot implementation in vulnerable areas in Turkey for urban health research. To strengthen community participation in energy and health initiatives. To underline the importance of a multi-disciplinary.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders. Participate in EU-level policy discussions to share findings and advocate for policy change. Promote the creation of interdisciplinary networks (social services, health, energy…)

Table 24 ZDA Exploitation Plan

4.2.13 MUTK Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 1 - Policy recommendations	To reach a wider group of local, territorial and national stakeholders and inform them about policy recommendations	Policy stakeholders in a broad sense, urban, regional and national policy stakeholders.	Reach out to the domestic policy stakeholders via MUTK's network and MUT members, sharing the policy recommendations, providing one-on-one consultancy if required and promoting the recommendations at MUTK events. Share policy recommendations with the MUTK contact list, which brings together policy relevant stakeholders from relevant European Interregs and similar projects.
KER 6 - Results on EP and its effects	Educating the public and the stakeholders on the health impacts of EP.	Policy stakeholders, administrations, health sector, building sector, municipalities and NGOs	Sharing the knowledge at events, conferences and workshops with the relevant stakeholders. Use of the knowledge to deepen the subject or for future research projects acquired by the MUTK.

KER 7 - Research on new financial models for EP	To foster the know-how and to research into the new financial models	Public administrations, private entities: financial bodies, insurance companies, etc. Risk investors, healthcare and social care entities	Participating on workshops and events focusing on new funding models for social challenges, promoting knowledge exchange between interested actors or informing policy decisions. Strengthen the technical skills and profile of the MUTH team for the establishment of new research collaborations.

Table 25 MUTK Exploitation Plan

4.2.14 OBM Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 4 - Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance	To transfer knowledge on large-scale pilot experiences in vulnerable areas of Hungary for urban health research. To underline the importance of a multi-disciplinary in energy and health initiatives. To strengthen community engagement in energy and health initiatives. To enable replication of successful interventions across Europe.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders to address specific implementation challenges (share lessons learned about GDPR compliance, households' engagement, etc). Participate in EU-level policy dialogues and forums to promote the integration of WELLBASED best practices into broader frameworks Promote the creation of cross-sector partnerships that integrate energy, health, and social services for holistic solutions to EP. Disseminate the results of the project among the Hungarian institutions involved in the implementation of the project, as well as with the cities with which the City Council has direct contact and are open to development in the field of social, health and environmental issues.
KER 8 - Research skills development	To transfer the lessons learnt from the project into ongoing and new projects or similar initiatives to improve research skills.	International research community, academic institutions, international nonprofit organizations, EU-funded project consortia	Incorporate lessons learned into ongoing programmes for the research community on engaging vulnerable groups in ethical and impactful research. Organising policy forums and expert panels to discuss the implications of WELLBASED research skills for future social, health, and energy policies.

			Use the knowledge gained from running a hackathon to learn how to structure collaborative problem-solving events to address societal challenges in other projects or initiatives.

Table 26 OBM Exploitation Plan

4.2.15 ASIDEES Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 3 - Pilots' implementation kit: how to implement the WUP	To transfer knowledge on large-scale pilot implementation in vulnerable areas for urban health research. To promote evidence-based decision-making through data insights. To lead in developing holistic approaches for urban challenges. To strengthen community participation in energy and health initiatives. To enable replication of successful interventions across Europe.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Offer tailored consultancy and technical workshops to address specific implementation challenges faced by stakeholders. Participate in EU-level policy discussions to share findings and advocate for policy change. Replication of the WELLBASED WUP implementation in other projects in which ASIDEES may take part.

Table 27 ASIDEES Exploitation Plan

4.2.17 JPOIC Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 4 - Innovative approaches to community	To transfer knowledge on large-scale pilot experiences in vulnerable areas of Latvia for urban health research.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded	Organise workshops and share case studies with municipalities and other stakeholders to address specific implementation challenges

engagement, stakeholder collaboration and challenges in GDPR compliance	To underline the importance of a multi-disciplinary in energy and health initiatives. To strengthen community engagement in energy and health initiatives. To enable replication of successful interventions across Europe.	project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	(share lessons learned about GDPR compliance, households' engagement, etc). Promote the creation of cross-sector partnerships that integrate energy, health, and social services for holistic solutions to EP. Create engagement roadmaps that detail effective approaches for maintaining long-term community involvement Disseminate the results of the project among the Latvian institutions involved in the implementation of the project, as well as with the cities with which the City Council has direct contact and are open to development in the field of social, health and environmental issues.
KER 8 - Research skills development	To transfer the lessons learnt from the project into ongoing and new projects or similar initiatives to improve research skills.	Municipal companies and external companies they work with, social services, institutions and services working with similar projects	Incorporate lessons learned into ongoing programmes for the research community on engaging vulnerable groups in ethical and impactful research. Organising policy forums and expert panels to discuss the implications of WELLBASED research skills for future social, health, and energy policies. Use the knowledge gained from running a hackathon to learn how to structure collaborative problem-solving events to address societal challenges in other projects or initiatives.

Table 28 JPOIC Exploitation Plan

4.2.18 HEERLEN Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 4 - Innovative approaches to community engagement, stakeholder collaboration and	To transfer knowledge on large-scale pilot experiences in vulnerable areas of Netherlands for urban health research. To underline the importance of a multi-disciplinary in energy and health initiatives.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders to address specific implementation challenges (share lessons learned about GDPR compliance, households' engagement, etc). Promote the creation of cross-sector partnerships that integrate energy, health, and social services for holistic solutions to EP.

challenges in GDPR compliance	To strengthen community engagement in energy and health initiatives. To enable replication of successful interventions across Europe.		Create engagement roadmaps that detail effective approaches for maintaining long-term community involvement Disseminate the results of the project among the Heerlen institutions involved in the implementation of the project (GP, hospital, GGD-ZL etc), as well as with the cities with which the City Council has direct contact and are open to development in the field of social, health and environmental issues.
KER 8 - Research skills development	To transfer the lessons learnt from the project into ongoing and new projects or similar initiatives to improve research skills.	Municipal companies and external companies they work with, social services, institutions and services working with similar projects	Incorporate lessons learned into ongoing programmes for the research community on engaging vulnerable groups in ethical and impactful research. Organising policy forums and expert panels to discuss the implications of WELLBASED research skills for future social, health, and energy policies. Use the knowledge gained from running a hackathon to learn how to structure collaborative problem-solving events to address societal challenges in other projects or initiatives.

Table 29 HEERLEN Exploitation Plan

4.2.19 LCC Exploitation Plan

Exploitable Key result	Exploitation goals	Target sector	Main exploitation routes
KER 4 - Innovative approaches to community engagement, stakeholder collaboration and challenges in GDPR compliance	To transfer knowledge on large-scale pilot experiences in vulnerable areas of United kingdom for urban health research. To underline the importance of a multi-disciplinary in energy and health initiatives. To strengthen community engagement in energy and health initiatives.	Municipalities, smart city agencies, academic institutions, international nonprofit organizations, EU-funded project consortia, housing associations, technology developers, smart city initiatives, grassroots facilitators, public.	Organise workshops and share case studies with municipalities and other stakeholders to address specific implementation challenges (share lessons learned about GDPR compliance, households' engagement, etc). Promote the creation of cross-sector partnerships that integrate energy, health, and social services for holistic solutions to EP. Create engagement roadmaps that detail effective approaches for maintaining long-term community involvement

	To enable replication of successful interventions across Europe.		Disseminate the results of the project among the UK institutions involved in the implementation of the project, as well as with the cities with which the City Council has direct contact and are open to development in the field of social, health and environmental issues.
KER 8 - Research skills development	To transfer the lessons learnt from the project into ongoing and new projects or similar initiatives to improve research skills.	Municipal companies and external companies they work with, social services, institutions and services working with similar projects	Incorporate lessons learned into ongoing programmes for the research community on engaging vulnerable groups in ethical and impactful research. Organising policy forums and expert panels to discuss the implications of WELLBASED research skills for future social, health, and energy policies. Use the knowledge gained from running a hackathon to learn how to structure collaborative problem-solving events to address societal challenges in other projects or initiatives.

Table 30 LCC Exploitation Plan

5. Results from the Hackathons

The WELLBASED project adopted an open innovation approach, which has played a key role in the identification of innovative ideas focused on addressing EP and health challenges, involving local communities and stakeholders in the process. The results of each of the 6 hackathons are summarised in Table.31, and, in the Annex B section:

Pilot City	Date	Participants	General information	Results
Valencia	26th and 30th April 2024	38 participants divided in 10 teams.	**Topic: Mitigating energy poverty in summer and its impact on health.** During the first day the challenge was presented and the teams had time to work on their solution, on the second day the teams were able to present their solution, the jury deliberated, and the awards and certificates were given	Annex A Valencia Hackathon – Innovative ideas
Edirne	13rd July 2024	19 participants divided in 3 teams.	**Topic: Improving the general living conditions of households and settlements experiencing EP in Edirne in terms of environmental, social and economic aspects.** At the beginning of the event, the subject and methodology of the Hackathon was explained and then the team's starting to work on their innovative ideas. Finally, the teams were able to present their solution, the jury deliberated.	Annex A. Edirne Hackathon – Innovative ideas
Heerlen	28th June 2024	18 participants divided in 3 teams.	**Topic: The Whole Heerlen Saves Challenge.** The day was divided into two parts, using Design Thinking to guide them through. In the first part, participants received all necessary information and gathered as many ideas as possible for the problems. In the second part, three ideas were further developed using the NOW, HOW, and WOW methods and presented with a pitch. Each idea had unique aspects, such as immediate feasibility, broad thinking beyond just sustainability, or empowering homeowners.	Annex A. Heerlen Hackathon – Innovative ideas
Leeds	25th September 2024	18 participants divided in 4 teams.	**Topic. How can we support people to improve the energy efficiency of their homes in ways that do not negatively impact the climate?**	Annex A. Leeds Hackathon – Innovative ideas

			During the first morning, the teams were encouraged to think about the challenge, review the data, and bring their own experiences and knowledge to the table. The challenge was deliberately broad and less focused to allow the teams to be creative and wide ranging in their thinking – because each team had members from different backgrounds, it meant that they brought their own experiences into the discussion. Teams were able to present their solution, the jury deliberated.	
Obuda	20th June 2024	25 participants divided in 5 teams.	**Topic: Together for Healthy Homes.** In the first half of the event, professional presentations were given by experts to shed light on the topic of the event from several points of view, to raise the most important questions, to inspire. After the presentations, the 5 teams developed their solution proposals during a workshop with professional help. Finally, the teams shared their results in 15-minute presentations.	Annex A. Oubda Hackathon – Innovative ideas
Jelgava	22nd November 2023	28 participants divided in 5 teams.	**Topic: Promotion of environmentally friendly housing improvement in Jelgava State City Municipality.** The first part included presentations and best practices by experts in the field, as well as a moderated discussion between participants and experts. The second part was devoted to a method based on the principles of design thinking. The design thinking approach to co-creation implies a special focus on the user experience of a problem or service as a basis for creating, evaluating and realizing potential solutions.	Annex A. Jelgava Hackathon – Innovative ideas

Table 31 Results of the WELLBASED Hackathons

Through the implementation of the hackathons in six different cities several ideas and reflections emerged, both from the perspective of the event organisation and from the perspective of the challenges that need to be addressed to effectively implement the proposed innovative solutions. The following highlights only some of the ideas that were concluded at the different events.

From the point of view of the hackathons' organization:

- Awarding prizes for winning hackathon ideas in the context of European projects can pose challenges in terms of eligibility of costs. It is therefore important to anticipate these issues and to find appropriate alternatives for their effective implementation.
- The collaboration between different entities, including universities and public entities, proved highly successful and played a crucial role in fostering the development of innovative ideas with strong potential.

From the implementation of the innovative solutions:

- The education of young people in the field of energy transition is essential to ensure a future workforce with the necessary skills and to facilitate the adoption of new policies.
- The residents' interest in building refurbishment projects remains low, largely due to a lack of clear information about the benefits of such initiatives. This problem is particularly pronounced in communities with a high proportion of older people, lower levels of technical literacy and limited awareness of the structural condition of their buildings. Consequently, the digital gap and difficulties in effectively communicating initiatives to citizens are significant challenges that require more effective dissemination and engagement strategies.
- The importance of developing robust follow-up plans to ensure the continuity of initiatives and to assess their long-term impact.

In sum, the hackathons conducted in the WELLBASED context have generated promising solutions (Annex A) and highlighted the importance of accessible, participatory and sustainable strategies to address EP. However, to make the most of these initiatives and scale them up, further efforts are needed in terms of implementation, citizen participation and the establishment of effective monitoring and support mechanisms for adopting them. Fostering collaboration between communities, policy makers, businesses and other stakeholders could also create a supportive ecosystem for the implementation of these solutions. Besides, public-private partnerships could play a crucial role in providing technical expertise, financial investment and policy guidance to help overcome barriers to market entry.

6. Conclusions

The WELLBASED project has developed a comprehensive exploitation strategy to maximise the impact of its results and ensure long-term sustainability. With the identification of the KERs that can be replicated and adapted, the project is adding value to its exploitation strategy so that these evidence-based results for tackling EP and its associated health impacts can be used to address wider societal challenges in the future. Therefore, D6.3 has identified 8 different KERs.

The project's **policy recommendations (KER 1)** offer practical guidance aimed at policymakers, advocacy groups, researchers and similar EU projects in implementing effective and sustainable interventions that reduce health negative effects and enhance the overall quality of life of people suffering from EP.

Furthermore, **the methodology for the definition of the WUP (KER 2)** will enable local governments to design targeted interventions to alleviate EP and improve the health and well-being of their affected populations, while **the pilots implementation kit (KER 3)** includes a detailed plan for each city, outlining the necessary adaptations to the general framework and the recruitment strategies tailored to the specific needs of the local population. These two KERs will ensure that each site is able to implement the WELLBASED Urban Programme effectively, considering local conditions and challenges.

From a data and analysis perspective, WELLBASED provides valuable **results on EP and its effects (KER 6)**, including evidence-based recommendations for the adoption of cost-effective interventions to alleviate urban EP, and has also made significant contributions to the **understanding of alternative financing models (KER 7)** for tackling this phenomenon. In addition, the availability of **open data for re-use (KER 5)** provides an invaluable resource for future studies, enabling further analysis of the determinants and health impacts of EP.

Finally, the project has generated extensive knowledge on **innovative approaches to community engagement, stakeholder collaboration and GDPR compliance challenges (KER 4)** from the implementation of the pilot projects, including key lessons learned, while **strengthening the research skills (KER 8)** of the partners throughout their participation in the project activities.

In conclusion, the project results provide a solid basis for the development of new initiatives, actions and future research in the field of EP and its effects. A key aspect of the exploitation strategy was the dynamic exchange of ideas, which fostered a collaborative approach. This enriched the project's outcomes by integrating diverse perspectives and expertise, ultimately shaping the definition of KERs and informing each partner's individual exploitation plan.

In this respect, all partners have made considerable efforts to define their own roadmaps, including concrete actions to be implemented after the project ends. However, certain challenges arose in developing the exploitation strategy, including the following:

1. **Timing constraints**. The task associated with this deliverable (Task 6.4) started at Month 40 (M40), which placed the development of the exploitation strategy very close to the end of the project. Additional time would have been highly beneficial considering that this task also included the execution of six hackathons, which required KVC to prepare and organise all the associated work in advance to ensure compliance with MS13.

2. **Project nature.** As a research project, most partners initially had limited experience in developing exploitation plans. Consequently, there was no broad initial vision of potential exploitation routes beyond the dissemination of results. This required additional effort from all partners involved to define more concrete and structured exploitation actions.

Future Steps:

Beyond the scope of the project, there is significant potential to extend its impact by implementing the individual exploitation plans outlined in this deliverable. Each partner has already established a clear roadmap (section 4.2) to guide their next steps. Although no additional budget will be available after M48, integrating exploitation activities into their future organisational activities would be highly beneficial for the partners.

Furthermore, if two or more partners wish to pursue joint exploitation initiatives according to the KERs and exploitation ideas described (section 4.1), they must follow the guidelines set out in Section 8.2 joint ownership of the CA and article 26.2 of the GA.

On the other hand, the innovative ideas that emerge from the hackathons (Annex A) offer valuable opportunities for further development in collaboration with local stakeholders. Partners could explore the potential for exploitation by designing tailored strategies to refine, test and scale up these solutions to ensure their feasibility in real-world settings. By outlining clear implementation steps, identifying funding opportunities and engaging key partners, these initiatives could also help bridge the gap between conceptual innovation and practical application.

7. References

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8. Annexes

A. RESULTS OF THE HACKATHONS

Valencia Hackathon

TEAM 1	AJJ
PROJECT DETAILS	
Name of the solution	Cooling pump with solar panels
Description	District heating for the building with PV panes.
Objectives	To cool the household with sustainable energy
Technologies used	Heat pumps & PV panels
Achieved Results	Decrease the inner temperature of the households. Improve the comfort of the household and reduce the health effects cause by high temperatures. Reduced production of non-renewable energy.
GENERATED SOLUTIONS	
Description	Use of solar panels to provide energy for heat pumps that sucks hot air from the households which can be used for water heating or further purposes. RES installation in buildings to be shared among all the flats as a centralised cooling/heating system.
Possible Practical Applications	In buildings as energy communities.
Potential Impact	Cooling the building with renewable energy. Improve the comfort of households.
Implementation Feasibility	Technologically the solution is feasible the challenging part is to get the fundings and involucrate vulnerable households.
PROJECT EVALUATION	
Originality	Not much as the technology already exist
Viability	No
Social Impact	Overall satisfaction Increased productivity

	Mental health improvement
Relevance to Hackathon themes	Doesn't address how to involve vulnerable households
EVALUATOR FEEDBACK	
Comments and Feedback	
Strengths	Sustainability, feasibility
Areas for improvement	Doesn't address how to involve vulnerable households, big investment
Business Model Canvas Elements	Partially developed

Table 32 Valencia Hackathon – Innovative ideas - TEAM 1

TEAM 2	**Nordics**
PROJECT DETAILS	
Name of the solution	HeatHelp
Description	Website/app
Objectives	Improve the comfort at home Reduce the consumption at home through customize advice
Technologies used	App/website
Achieved Results	Improve comfort at home Improve knowledge on how to be more efficient at home and save money
GENERATED SOLUTIONS	
Description	Website/app which visualizes collected data and communicates in a multimodal way to reach all target users in their preferred way. Data driven community approach for a long-term, low-cost summer kit, benefitting both paying and non-paying customers
Possible Practical Applications	
Potential Impact	Reducing the temperature and humidity lessens the risk of negative health impacts Especially important for people in risk groups like respiratory and cardiovascular diseases etc. Reducing mental stress by simplifying access to information and tools for all user groups Increase mental health by reducing heat without excluding sunlight
Implementation Feasibility	Low-cost solution
PROJECT EVALUATION	

Originality	The mix of the summer energy kit and the App that tells customize solutions to be more efficient and be prepared for extreme weather conditions is original
Viability	Yes
Social Impact	Improved overall wellbeing of the society Free or low-cost long-term help for the community
Relevance to Hackathon themes	Address the problem of improving the comfort at home, save money and include vulnerable households
EVALUATOR FEEDBACK	
Comments and Feedback	
Strengths	Originality, feasibility
Areas for improvement	Accessibility for energy vulnerable. Price of kit not well estimated
Business Model Canvas Elements	Well developed

Table 33 Valencia Hackathon – Innovative ideas - TEAM 2

TEAM 3	**TikTokens**
PROJECT DETAILS	
Name of the solution	Energy Tokens
Description	Tokens reward system for efficient behaviours.
Objectives	Reduce energy consumption, savings. Increase the knowledge of the users.
Technologies used	Existing technology
Achieved Results	Mental health improves by social gatherings. More money left for cooling/cooking. Physical health improves by health checkups/knowledge about illnesses.
GENERATED SOLUTIONS	
Description	Tokens as part of a reward system with a home monitoring APP, with benefits for efficient behaviours and meetings with different topics related to EP
Possible Practical Applications	
Potential Impact	Improve the knowledge of energy efficiency of the users. Reduce the energy bills and get tokens to be used somewhere else.

	Increase the knowledge of the participants trough social gatherings.
Implementation Feasibility	
PROJECT EVALUATION	
Originality	Mix of tokens reward system, energy efficiency tips and social gatherings
Viability	
Social Impact	Job creation Meetings for information in climate shelters Community feeling by tackling the problem together
Relevance to Hackathon themes	Energy efficiency, reduce consumption, tokens reward to use somewhere else, improve comfort at home, reduce mental stress
EVALUATOR FEEDBACK	
Comments and Feedback	
Strengths	Originality, support to public system, community approach
Areas for improvement	Accessibility by energy poor, users' engagement in the app and the meetings
Business Model Canvas Elements	Partially developed

Table 34 Valencia Hackathon – Innovative ideas - TEAM 3

TEAM 4	**Germans and Dutchies**
PROJECT DETAILS	
Name of the solution	ValEnergy
Description	Synergy of technology and housing data Window location, blueprints, etc. Real-time automated consultancy on ventilation
Objectives	Optimizing housing ventilation to decrease energy expenditure through modern technologies
Technologies used	App, sensors, open data
Achieved Results	Improve energy efficiency behavioural change. Reduce energy consumption and the bills, credit on activities in the city. Improve comfort at home.
GENERATED SOLUTIONS	

Description	
Possible Practical Applications	
Potential Impact	Improve energy efficiency through ventilation, reduce energy consumption and the bills and improve comfort at home.
Implementation Feasibility	
PROJECT EVALUATION	
Originality	Ventilation app
Viability	
Social Impact	Community development enhancement.
Relevance to Hackathon themes	Improve comfort at home, free for vulnerable households.
EVALUATOR FEEDBACK	
Comments and Feedback	Award to the best solution
Strengths	Originality, Addresses ventilation issue which is a health problem
Areas for improvement	Technical feasibility, access from energy poor, community approach
Business Model Canvas Elements	Well-developed

Table 35 Valencia Hackathon – Innovative ideas - TEAM 4

TEAM 5	**Ecolution**
PROJECT DETAILS	
Name of the solution	SolarShade
Description	Recycling of thermal blankets for use in reflective blinds
Objectives	Reduce waste reutilizing thermal blankets of marathons. Reflects inner temperature.
Technologies used	Thermal blankets and blinds.
Achieved Results	Heat-related illness prevention. Reduction of waste in landfills. Promotes equality.
GENERATED SOLUTIONS	
Description	Use thermal blankets on blinds to reflect the sun and reduce the inner temperature.

Possible Practical Applications	In households with tilted blinds.
Potential Impact	Improve comfort at home. Reduce waste.
Implementation Feasibility	
PROJECT EVALUATION	
Originality	Circular economy
Viability	
Social Impact	
Relevance to Hackathon themes	Solution for vulnerable households with sustainable impact.
EVALUATOR FEEDBACK	
Comments and Feedback	Award to the solution most environmentally friendly
Strengths	Originality, sustainability and reduction of waste, adaptation to local context
Areas for improvement	Technical feasibility, chain of stakeholders involved
Business Model Canvas Elements	Partially developed

Table 36 Valencia Hackathon – Innovative ideas - TEAM 5

TEAM 6	**Oceanside**
PROJECT DETAILS	
Name of the solution	Solarmesh Green Garden
Description	Climate shelter with PV installations
Objectives	Use unused parks as shelters where people can go during the days of high temperatures. Generate renewable energy for local business.
Technologies used	PV installation. Shelter structure. Garden.
Achieved Results	Re-naturalised the area, reduce the temperature, improve air quality, generate renewable energy, achieve community cohesion.
GENERATED SOLUTIONS	

Description	Re-naturalisation of a park to be used as a shelter with renewable energy production where people can gather in different events and activities and be comfortable.
Possible Practical Applications	
Potential Impact	Reduce temperature. Generate local community. Produce renewable energy.
Implementation Feasibility	
PROJECT EVALUATION	
Originality	Is original the cost/revenue stream; use the generated electricity as a revenue to maintain the park
Viability	Yes, if funded by the municipality
Social Impact	Community cohesion: space for events and activities. Reduced EP. Educational properties.
Relevance to Hackathon themes	Vulnerable households can benefit during the warmest hours of the solution.
EVALUATOR FEEDBACK	
Comments and Feedback	
Strenghts	Sustainability, community approach, neighbourhood improvement
Areas for improvement	Technical and social feasibility
Business Model Canvas Elements	Partially developed

Table 37 Valencia Hackathon – Innovative ideas - TEAM 6

TEAM 7	**Heatwave Heroes**
PROJECT DETAILS	
Name of the solution	Climate Shelters
Description	Climate shelter
Objectives	Vulnerable households to benefit from the shelter and its activities during warm season
Technologies used	
Achieved Results	Less health illnesses related with excessive heat, Mental health improvement, Avoiding peak heat hours.

	Reduction in the domestic energy consumption, Emission reduction because the majority of the energy in the university in summer is produced with PV. Inclusiveness, Reduction of isolation, Education on energy consumption and health, network of volunteers, Fight marginality, Collect information for study.
GENERATED SOLUTIONS	
Description	Climate shelter as a social solution on university campus during summer months.
Possible Practical Applications	
Potential Impact	
Implementation Feasibility	
PROJECT EVALUATION	
Originality	Use the spaces of the campus during less crowded months. Offer activities and workshops for the vulnerable households.
Viability	
Social Impact	
Relevance to Hackathon themes	
EVALUATOR FEEDBACK	
Comments and Feedback	
Strenghts	Addresses the need, support of Energy Office, low use of resources
Areas for improvement	Compatibility with university schedules, engagement of energy poor
Business Model Canvas Elements	Partially addressed

Table 38 Valencia Hackathon – Innovative ideas - TEAM 7

TEAM 8	**Truthchasers**
PROJECT DETAILS	
Name of the solution	Communities Micro-loans
Description	Building Energy Communities through Micro-loans
Objectives	Empowerment of each member of the community by becoming prosumers Development a sense of belonging to a community and inclusiveness Enhancing educational opportunities

Technologies used	Renewable energy
Achieved Results	Reduces CO2 emissions and the temperature as energy is generated by RES Health improving
GENERATED SOLUTIONS	
Description	Build energy communities with renewable energies where vulnerable households can participate and connect with other people from their neighbourhood using microloans to afford the upfront cost
Possible Practical Applications	
Potential Impact	Building community Economic opportunities & Decreasing inequality
Implementation Feasibility	
PROJECT EVALUATION	
Originality	The financing system is innovative
Viability	Difficulty to get the loans and to involve vulnerable households in the community
Social Impact	Generate belonging to a community, reduce energy expenditure
Relevance to Hackathon themes	Addresses EP; reducing the energy expenditure, improving the energy efficiency, improving the comfort at home
EVALUATOR FEEDBACK	
Comments and Feedback	
Strenghts	Originality, community approach, sustainability
Areas for improvement	Energy poor engagement
Business Model Canvas Elements	Partially developed

Table 39 Valencia Hackathon – Innovative ideas - TEAM 8

TEAM 9	**Sopaipilla**
PROJECT DETAILS	
Name of the solution	REFUGI VERD
Description	Climate shelter on Nazaret with multiple benefits in the neighbourhood
Objectives	Create a space to protect the citizens from heat waves with natural solutions and an agroecological garden to improve the diets of the users

Technologies used	Natural solutions, RES
Achieved Results	A green space with renewable energy where people can go during heat waves. Create social belonging through cooperation participatory processes, reduce stress and health issues caused by the exposure to hight temperatures.
GENERATED SOLUTIONS	
Description	Climate shelter in a neighbourhood with high rates of vulnerable households, using RES and re-naturalization of the space. Creating a space of education
Possible Practical Applications	
Potential Impact	
Implementation Feasibility	
PROJECT EVALUATION	
Originality	
Viability	
Social Impact	
Relevance to Hackathon themes	
EVALUATOR FEEDBACK	
Comments and Feedback	Award to the solution with most health (physical and mental) impact
Strenghts	Addresses the need, with environmental and mental health benefits, community approach, feasible and appropriate in the line of what is being done
Areas for improvement	Big public investment, compatibility with energy offices schedules
Business Model Canvas Elements	Partially developed

Table 40 Valencia Hackathon – Innovative ideas - TEAM 9

TEAM 10	**The Energy Social Club**
PROJECT DETAILS	
Name of the solution	Energy Social Club
Description	Energy related workshops.
Objectives	Create sense of community, participate in workshops as trainers/trainees, integrate unemployed/retired people. Increase the knowledge of efficiency
Technologies used	

Achieved Results	Sense of belonging Improve knowledge of energy efficiency
GENERATED SOLUTIONS	
Description	Tailored workshops, gatherings and classes about energy efficiency and comfort at home
Possible Practical Applications	
Potential Impact	Effect of spreading information about sustainable solutions throughout the society. Provide a social setting for unemployed or socially vulnerable.
Implementation Feasibility	
PROJECT EVALUATION	
Originality	Not much.
Viability	Yes.
Social Impact	Re-insertion.
Relevance to Hackathon themes	Yes
EVALUATOR FEEDBACK	
Comments and Feedback	
Strengths	Addresses the need, cost-efficient
Areas for improvement	Originality, people's engagement
Business Model Canvas Elements	Partially developed

Table 41 Valencia Hackathon – Innovative ideas - TEAM 10

Edirne Hackathon

TEAM 1	**HOBRE EDIRNE**
PROJECT DETAILS	
Name of the solution	Social and spatial transformation project to eliminate energy shortage in Çavuşbey Neighborhood Papazoğlu Area
Description	Effective and efficient use of energy

Objectives	Elimination of EP and social injustice in Edirne
Technologies used	Alternative energy sources, photovoltaic solar panels, heat pumps
Achieved Results	Eliminating EP and social injustice and improving the quality of life in Edirne
GENERATED SOLUTIONS	
Description	Planning the spatial and social transformation of the existing area with a holistic planning approach, including housing and social facilities
Possible Practical Applications	It is a method currently used. Although it is not frequently applied in Edirne, the general trend in the world is in this direction.
Potential Impact	Very high
Implementation Feasibility	It can be applied in all neighborhoods experiencing EP.
PROJECT EVALUATION	
Originality	Although it is not a new application, it will be the first application of this scale in Edirne.
Viability	Yes
Social Impact	High
Relevance to Hackathon themes	The solution fits the theme.
EVALUATOR FEEDBACK	
Comments and Feedback	The project is challenging in terms of implementation.
Strengths	Includes a social transformation proposal to reduce EP
Areas for improvement	The project needs to be developed from a social perspective.
Business Model Canvas Elements	Most sections are filled.
BUSINESS MODEL CANVAS ELEMENTS	
Customer Segment	Households and settlements experiencing EP
Distribution Streams	Face-to-face meetings Announcements Information meetings
Revenue Streams	Governments and Funds
Key Resources	Related Ministries, municipalities, governorships, funding Institutions

Key Activities	Housing of the region (Municipality- Governorship) Preparation of specifications Projecting Construction works Preparation of management plan
Key Partnerships	Related ministries, municipalities, governorships, funding institutions, TMMOB, city council, relevant NGOs
Cost Structure	Expropriation cost Construction cost Operating cost

Table 42 Edirne Hackathon – Innovative ideas - TEAM 1

TEAM 2	**GÜNEBAKANLAR**
PROJECT DETAILS	
Name of the solution	Cooperative and Awareness Raising with the Use of Renewable Energy Resources
Description	Facilitating access to cheap and fast renewable energy
Objectives	Preventing injustice and improving conditions by providing easy access to the required energy
Technologies used	Solar panels, wind turbines, batteries
Achieved Results	Reducing EP, increasing public awareness, improving quality of life
GENERATED SOLUTIONS	
Description	Providing awareness training, improving spatial physical conditions, establishing an energyproduction cooperative, improving general living conditions in this context and expanding the use of environmentally friendly renewable energy sources.
Possible Practical Applications	Improving the currently applied methods and disseminating them in Edirne
Potential Impact	High
Implementation Feasibility	The solution fits the theme
PROJECT EVALUATION	
Originality	Establishing a new system by developing andimplementing existing systems
Viability	Yes
Social Impact	High

Relevance to Hackathon themes	Yes
EVALUATOR FEEDBACK	
Comments and Feedback	It stands out as the most social model among theteams' proposals.
Strengths	It has high scalability.
Areas for improvement	It can be improved in terms of strategic planning.
Business Model Canvas Elements	Most sections are filled. It appears that efforts are being made to make the proposal ready for the market.
BUSINESS MODEL CANVAS ELEMENTS	
Customer Segment	Households in Edirne
Distribution Streams	Field studies, announcements, social media
Revenue Streams	Funds
Key Resources	Financial funds, project funds, municipal grantsupports, etc.
Key Activities	Problem/need analysis Purchasing operations Training and conferences Improving conditions and establishing the cooperative
Key Partnerships	R&D – Energy, environment and urban development agencies, Local governments, companies,municipalities, governorships, NGOs
Cost Structure	N/A

Table 43 Edirne Hackathon – Innovative ideas - TEAM 2

TEAM 3	**MATIRICIE**
PROJECT DETAILS	
Name of the solution	E-support
Description	Platform for e-support about reduce to EPin Edirne
Objectives	Reduce to EP and improve to municipalityservices
Technologies used	Internet
Achieved Results	Energy saving and sustainable living, social andeconomic recovery, improvement of social solidarity,

GENERATED SOLUTIONS	
Description	Earn points by applying for daily works shared by Edirne Municipality on the platform and spend them on energy purchases or products donated by philanthropists
Possible Practical Applications	Mobile phone, laptop, computer, internet cafe
Potential Impact	High
Implementation Feasibility	Website background was prepared as software
PROJECT EVALUATION	
Originality	Yes
Viability	Yes
Social Impact	High
Relevance to Hackathon themes	Yes
EVALUATOR FEEDBACK	
Comments and Feedback	An original product has been proposed.
Strengths	A market-ready product has been proposed.
Areas for improvement	Data privacy and dissemination channels can be improved.
Business Model Canvas Elements	Most sections are filled. It appears that efforts are being made to make the proposal ready for themarket.
BUSINESS MODEL CANVAS ELEMENTS	
Customer Segment	Roma people in Edirne
Value Proposition	Providing social, environmental and economic wellbeing
Distribution Streams	Social media, municipality
Revenue Streams	Funds, municipality
Key Resources	Web site, software check
Key Activities	Creating a profile Submitting job postings suitable for the person via the website Earning points by applying to the postings and completing the task Spending points on the “Virtual Market”
Key Partnerships	Municipality & Matiricie
Cost Structure	Technical cost and working days of team for the platform

Table 44 Edirne Hackathon – Innovative ideas - TEAM 3

Heerlen Hackathon

TEAM 1	
PROJECT DETAILS	
Name of the Solution	The Power of Heerlen.
Goal	Combine the region's potential and challenges to help residents not only make their homes sustainable but also strengthen regional employment.
How	- Simplify regulations for self-sustainability - develop training opportunities for youth in energy transition - strengthen the regional economy by actively matching supply and demand.
Technologies Used	Policy instruments, matchmaking, deregulation.
Achieved Results	A coherent plan to enable homeowners with low energy labels to make their homes sustainable while providing youth with job opportunities in the region.
GENERATED SOLUTIONS	
Description	Homeowners struggle to make their homes sustainable due to a lack of knowledge and funds. The municipality can simplify the process for homeowners to receive subsidies and provide professional assistance where needed. The lack of professionals is addressed by developing relevant training programs in Heerlen.
Practical Applications	Lower the threshold for homeowners to make their homes sustainable and create training/work placements for students in energy transition.
Potential Impact	The proposal could accelerate the sustainability of the private housing stock through local embedding and accessibility.
Feasibility	A comprehensive approach from the municipality is needed, facilitating homeowners with simplified regulations and providing implementation capacity through relevant training programs.
EVALUATION OF THE PROJECT	
Originality	This proposal takes a broader view, combining various challenges and turning them into opportunities.
Viability	Realistic
Societal Impact	Significant.
Relevance to Hackathon Themes	Highly relevant.
EVALUIST FEEDBACK	
Evaluator's Feedback	This is a long-term project that cannot be solely addressed within the sustainability program. It also aims to strengthen Heerlen's economy and create future opportunities for youth.

strengths	This goes further than just making things more sustainable. This is also about strengthening the economy in Heerlen and creating opportunities for our young people in the future.
Points of improvement	Not named.

Table 45 Heerlen Hackathon – Innovative ideas - TEAM 1

TEAM 2	
PROJECT DETAILS	
Name of the Solution	Guaranteed Savings.
Goal	Provide practical tools and instruments for residents and establish a guarantee fund to assure homeowners that their investments will yield positive results.
How	• Visit residents and listen to their questions and wishes. • Offer a do-it-yourself package to homeowners to make themselves more sustainable. • Set up a guarantee fund that provides certainty to home owners that their investment in sustainability will yield a positive result.
Technologies Used	Policy, financial, and social instruments.
Achieved Results	A timeline with measures leading to a stronger invitation and assurance for homeowners to make their homes sustainable.
GENERATED SOLUTIONS	
Description	Homeowners with low property values and low energy labels face high costs, uncertainty about investment returns, and a lack of knowledge about support options. The team devised practical solutions and a safety net providing assurance.
Practical Applications	Lower the threshold for homeowners to make their homes sustainable by offering practical tools.
Potential Impact	If Heerlen can realize the guarantee fund, it would significantly help lower-valued property owners to become sustainable.
Feasibility	Further study is needed, especially regarding the guarantee fund's feasibility for a specific target group.
EVALUATION OF THE PROJECT	
Originality	The team ventures beyond the typical restrained governmental role and addresses residents' concerns and barriers to contributing to the energy transition.
Viability	Needs further investigation.
Societal Impact	If viable, quite impactful.
Relevance to Hackathon Themes	Highly relevant.
EVALUIST FEEDBACK	
Points of improvement	Do people have enough knowledge to insulate themselves? Should this not be left to professionals? The focus is on directing as much funding as possible to homeowners for sustainability rather than the process itself.

strengths	The focus is on directing as much funding as possible to homeowners for sustainability rather than the process itself.
Points of improvement	Not named.

Table 46 Heerlen Hackathon – Innovative ideas - TEAM 2

TEAM 3	
PROJECT DETAILS	
Name of the Solution	In the Neighborhood
Goal	The team aims to reach out to homeowners and enable them to make their homes sustainable, using positive examples to encourage wider adoption.
How	• Empowering homeowners to contribute to the energy transition • provide tailored support • showcase good examples • offer a single point of contact in the neighborhood.
Technologies Used	Policy instruments, deregulation, social instruments, communication tools.
Achieved Results	The proposed approach prioritizes homeowners' needs and enables them to meet upcoming regulations.
GENERATED SOLUTIONS	
Description	Homeowners generally want to make their homes sustainable but lack confidence or urgency. By approaching them, discussing their needs, and making the task manageable, they can be guided to take the right steps. Municipal resources will be used for tailored support, and positive examples will encourage broader adoption. The municipality and other stakeholders commit to a long-term vision to help homeowners.
Practical Applications	Lower the threshold for homeowners to make their homes sustainable and encourage neighbours to help each other.
Potential Impact	A small initiative can grow significantly. Care and attention are essential for the municipality's tools to be effective.
Feasibility	Highly feasible and aligns with proven existing methods, leveraging stakeholder involvement and connecting interests.
EVALUATION OF THE PROJECT	
Originality	While not the most original, it breaks ingrained patterns by engaging with homeowners directly.
Viability	Realistic.
Societal Impact	Significant.
Relevance to Hackathon Themes	Highly relevant.
EVALUIST FEEDBACK	
Evaluator's Feedback	None noted.

strengths	This can be addressed immediately within the Sustainability program.
Points of improvement	Who should we involve as stakeholders in this?

Table 47 Heerlen Hackathon – Innovative ideas - TEAM 3

Leeds Hackathon

TEAM 1	
PROJECT DETAILS	
Name	Burn the Rich
Goal	Key aim: do **a street-by-street blanket retrofitting** starting with areas of greatest need.
How	This will be facilitated by funding streams, pay it forward opportunities that mean it is community-minded and sustainable. It will draw on a range of measures to enable people to understand how they will benefit, what will happen and make it easier for them to be 'retrofitted'. Finally, they will be able to see the benefits of installation by comparing data on energy bill costs and usage after retrofit. Street by street installation of insulation and solar PV in areas of greatest need.
Winning category	Most innovative idea

Table 48 Leeds Hackathon – Innovative ideas - TEAM 1

TEAM 2	
PROJECT DETAILS	
Name	Using Hyper Localised Load Management To Improve Indoor Air Quality at Low Cost
Goal	What if we could "flip" the concept of Load Management? • Work with NPG to define a Load Managed Area • Use working Smart Meters to allow a flexible switch • Rather than using that switch to exclusively control storage heating, use it to offer a localised lower rate when demand is low • This makes the offering agnostic - Any energy supplier can participate • Doesn't rely on individual tariffs or meters • Ultimately, gives the opportunity to offer cheaper energy and therefore improved indoor air quality, automatically at low or no cost

How	**Where** • Low income households • Low rise areas with electric heating (some problems with smart meters in high rise buildings) **How** • Support from council to provide electric air quality technology e.g. through grant funding • Build trust with tenants (particularly around fears of using indoor sensors or unknown technology) • Provide advice and manuals for using the new system, new appliances and indoor air quality sensors
Winning category	Best idea that could easily be implemented at scale

Table 49 Leeds Hackathon – Innovative ideas - TEAM 2

TEAM 3	
PROJECT DETAILS	
Name	CHEERs (Crowd-Sourced Energy Efficiency Records)
Goal	• A digital interactive platform that provides energy efficiency support for private sector tenants. CHEERs allows users to create a long-term record of their home, providing a guide on how to complete a simple energy efficiency survey, log issues, what their legal rights are and how to access help and advice. The platform will also allow users to create records of issues using images and notes. • Instructions will be provided on how to apply for a smart meter and to agree to share data for machine learning-led data analytics that will identify peaks in consumption and potential interventions. Tenants can also sign up for internal environmental sensors that will provide a context for the data analytics.
How	PEOPLE – This gives the users real-time data on energy consumption helping users to adjust behaviours and maximize expenditure. PLACES – This platform is web-linked to Leeds based Green Doctors who monitor volume of reports per postcodes. This organization is funded to provide small scale warm home interventions, such as draught-proofing. POLICY – A 50% threshold of postcodes within a geographical area will trigger an alert to Selective Licensing team in housing. This would be instrumental in initiating a conversation about scaling up Selective Licensing.
Winning category	Overall best idea

Table 50 Leeds Hackathon – Innovative ideas - TEAM 3

TEAM 4	
PROJECT DETAILS	
Name	The Energy Health System
Goal	The core aim of this service are:

	• Make a KWh go further for consumers • Consume to your needs • Increase awareness of what support is available • Simple - we do it all for you. • Reduce NHS expenditure through preventative intervention • Improve the 'energy health' of the most medically vulnerable • Contribute to the general improvement of energy efficiency ratings in existing housing stock • Leverage NHS trust to maximise take up
How	The Energy Health Service is a platform integrated with the NHS, government and independent providers for use by health professionals, carers, landlords, relatives or care receivers: • Energy efficiency and benefits assessments to be carried out at home visits for people accessing home care • Using inputs generate available improvement measures via direct integrations (API services) with providers • Choose your measures (self-serve or with support) and track and follow their installation/deployment/award • See your "energy health" record at a glance
Winning category	Idea that creates the greatest social impact

Table 51 Leeds Hackathon – Innovative ideas - TEAM 4

Obuda Hackathon

TEAM 1 – Póznamókusok	
PROJECT DETAILS	
Name of the solution	Making a Housing Estate Livable with Building's Electricty Soulitons
Description	A complex building electrical solution aimed at improving the air quality of residential buildings in housing estates
Objectives	Making apartments more livable, improving air quality in apartments with district heating and renewable energy solutions
Technologies used	Heat-recovery air mixing system combined with district heating, light-transmitting solar panel integrated into the window, use of flexible solar panels as parasols, use of DHW tank

Achieved Results	Air cleaning; heat recovery; renewable energy production; control of air pressure and air quality; reducing the temperature of apartments and reducing the use of non-renewable energy
GENERATED SOLUTIONS	
Description	A complex building electrical solution for residential buildings with the construction of a heat-recovery air mixing system combined with district heating, the use of transparent solar panels built into the window glass, the use of flexible solar panels as shading, and the use of heat-recovery DHW. The central element of the system is the fan. A self-regulating, heat-recovery mechanical ventilation system ensures constant air exchange in the interior. It blows fresh air into dry rooms and exhausts used air from wet rooms, which enables automated heat recovery ventilation.
Possible Practical Applications	Scheduled implementation of individual apartment building energy efficiency investment with district, capital city, state or EU support. ESCO type financing.
Potential Impact	Cooling and cleaning the air in buildings by combining district heat and renewable energy. Healthier, more affordable and more comfortable apartments.
Implementation Feasibility	Technologically, the solution is feasible, the challenge is obtaining the funds and involving vulnerable households.
PROJECT EVALUATION	
Originality	The use of a central air mixing system combined with district heating is unique for multi-apartment buildings. The other solutions use already existing technology, their uniqueness lies in their complexity.
Viability	Partly
Social Impact	Improving health Increasing comfort More affordable apartments
Relevance to Hackathon themes	The cooling of buildings contributes to the reduction of the heat island effect in housing estates. Improving air quality makes a significant contribution to creating healthier living conditions and improving the quality of life.
EVALUATOR FEEDBACK	
Comments and Feedback	The solution is purely technology-oriented, lacking social and economic elements
Strenghts	Improving the quality of life, more comfortable living conditions, sustainability
Areas for improvement	Financing; making it available to lower income households
BUSINESS MODEL CANVAS ELEMENTS	
Customer Segment	Residential, household
Value Proposition	Protecting air quality, shading, renewable energy production
Distribution Channels	Not determined
Revenue Streams	Not determined

Key Resources	Households' own financial resources, municipal or state support, bank loans
Key Activities	Building electrical and building mechanical developments
Key Partnerships	Municipality and residential communities
Cost Structure	Not determined

Table 52 Obuda Hackathon – Innovative ideas - TEAM 1

TEAM 2 – Hunergy – INNOVATION AWARD	
PROJECT DETAILS	
Name of the solution	Dual-function heat exchanger building cooling and irrigation system
Description	A sustainable and socially constructive solution to improve the energy consumption of housing estates
Objectives	Making the living environment more livable, promoting its cooling, more sustainable care of the green microenvironment
Technologies used	Bipolar wind-catching cooling tower on the roof of buildings, dual-function cooling and irrigation system, combining air exchange and heat-polluted water with an irrigation system
Achieved Results	The cooling and air exchange of the building by the cooler air flowing into the wind-catcher cooling tower, thus improving the air quality, reducing the temperature of the apartments, extracting irrigation water, thereby utilizing all the elements of the system.
GENERATED SOLUTIONS	
Description	Construction of a double-functional cooling and irrigation system, using ancient technology, with the retrofitting of a wind-catching cooling tower on top of the buildings. Utilization of the drinking water system and used greywater, combining heat-polluted water with the irrigation system. Building shading with modular facade shading plates by extending balconies and roofs, installing facade hanging gardens, collecting rainwater on the roofs of buildings, watering with rainwater. Passive energy efficiency renovations (facade insulation, door and window replacement).
Possible Practical Applications	Scheduled implementation of individual apartment building energy efficiency investment with district, capital city, state or EU support.
Potential Impact	Making the living environment more livable and promoting its cooling. Cooling and greening of buildings and their immediate surroundings. More sustainable care of the green microenvironment.
Implementation Feasibility	Realistically, the technical solutions can only be partially implemented (e.g. the retrofitting of cooling towers in housing estates is less realistically feasible). The challenge is to obtain funds and involve vulnerable households. The interventions do not result in significant cost savings for the households, but the panel is a significant step forward in terms of the aesthetic appearance, greening, livability and comfort of the living environment.

PROJECT EVALUATION	
Originality	The combined application of the central, dual-function heat exchange building cooling and irrigation system builds on ancient, existing technology, and develops it further with the irrigation system, which carries uniqueness. The other solutions use already existing technology (e.g. facade vertical garden, utilization of central precipitation collection for irrigation, modular shading plates), their uniqueness lies in their contemporary application and complexity.
Viability	Partly
Social Impact	Improving health Increasing comfort Creating jobs
Relevance to Hackathon themes	Cooling buildings and green buildings and their surroundings contribute to reducing the heat island effect in housing estates. Making apartments and their surroundings more livable contributes significantly to the creation of healthier living conditions and to improving the quality of life and well-being.
EVALUATOR FEEDBACK	
Comments and Feedback	The solution is primarily technology-oriented, with social and economic elements
Strenghts	Improving the quality of life, more comfortable living conditions, sustainability
Areas for improvement	Financing; making it available to lower income households
BUSINESS MODEL CANVAS ELEMENTS	
Customer Segment	Residential, household
Value Proposition	Building cooling, shading, greening
Distribution Channels	Not determined
Revenue Streams	Not determined
Key Resources	Households' own financial resources, municipal or state support, bank loans
Key Activities	Architectural, building engineering, building greening developments
Key Partnerships	Municipality and residential communities
Cost Structure	Not determined

Table 53 Obuda Hackathon – Innovative ideas - TEAM 2

TEAM 3 – Öko-Ötös	
PROJECT DETAILS	
Name of the solution	Energy Cycle
Description	Encouraging the creation of energy circles as a result of community development and attitude formation
Objectives	Community forming, connecting residents Increasing energy efficiency A change of attitude in a more sustainable direction Initiating and winning tenders and projects
Technologies used	Community development, attitude formation, installation of cold roofs, green roofs and solar panels on the roof, shading technology solutions (filming)
Achieved Results	Stronger, more cohesive communities, more livable homes as a result of a more informed population. Utilization of renewable energy, energy saving, retention of solar radiation, greening of roofs, improving the livability of apartments.
GENERATED SOLUTIONS	
Description	Green roof: Outstanding energy savings - By keeping the heat inside in the winter and outside in the summer, it reduces the thermal fluctuations of the building. Due to its excellent thermal insulation, it can significantly reduce cooling and heating energy consumption. Retaining solar radiation - using it with ALKOR systems: A flat roof or any roof with a slight slope is not just an empty, "top facade" of the house, it can be used for energy production through its free surface. At the same time, we must also include it in the building's thermal management. This is now possible with materials that cooperate with the insulation or are even used as part of it. Shading technology: Without shades, 75-80 percent of the sunrays enter the interior through the windows in the case of an average door and window; with the use of appropriate shades, a fraction of this, 20-25 percent, filters through. Its function is not only to retain heat, but also to darken it, and – in the versions that can be installed in front of the window or on the window – they also prevent a view into the house.
Possible Practical Applications	Scheduled implementation of individual apartment building energy efficiency investment with district, capital city, state or EU support.
Potential Impact	Making buildings more livable, promoting their greening and cooling. A cohesive residential community.
Implementation Feasibility	Technical solutions are feasible. The challenge is the resources for organizing community development. The interventions do not result in significant cost savings for households, but the greening of residential buildings and their livability and comfort represent substantial progress.
PROJECT EVALUATION	
Originality	Technical solutions are already existing technologies, the uniqueness is in the community-oriented approach.
Viability	Partly
Social Impact	A more cohesive community Increasing environmental awareness

	Increasing comfort
Relevance to Hackathon themes	Renewable energy production, increasing energy savings, green roofs, community development and attitude formation contribute to reducing the heat island effect in housing estates. Making apartments more livable contributes significantly to creating healthier housing conditions and improving the quality of life.
EVALUATOR FEEDBACK	
Comments and Feedback	The solution is primarily socially oriented, with environmental and technical elements
Strenghts	Improving the quality of life, more comfortable living conditions, community building
Areas for improvement	Financing and development of technical solutions
BUSINESS MODEL CANVAS ELEMENTS	
Customer Segment	Residential, household
Value Proposition	Community development, building cooling, shading, green roof
Distribution Channels	Not determined
Revenue Streams	Not determined
Key Resources	Households' own financial resources, municipal or state support, bank loans
Key Activities	Architectural, building engineering, building greening developments
Key Partnerships	Municipality and residential communities
Cost Structure	Not determined

Table 54 Obuda Hackathon – Innovative ideas - TEAM 3

TEAM 4 – Kapy – SOCIAL IMPACT AWARD	
PROJECT DETAILS	
Name of the solution	Architectural solutions shaping the environment
Description	Rethinking the existing housing stock and their environment, with a complex approach, supplemented by interventions for community purposes
Objectives	Addressing the following major issues: • mental • healthcare • technical-architectural • social • environmental • economic In the following target groups: the disadvantaged, young people, energy-poor households.
Technologies used	• Modular and green architectural solutions • Green roof (intensive, extensive) • Green facade • Use of recycled building materials • Development of community functions and spaces • Replacement of paved surfaces • Community-building sessions • Junior card program
Achieved Results	A more livable living environment as a result of an environmentally and socially sensitive living environment, healthier, more cohesive communities, and a more informed population. As a result of greening, energy savings, shading, retention of solar radiation, greening of roofs, improvement of the livability of apartments.
GENERATED SOLUTIONS	

Description	• **Junior card:** for the young population, it can be used for internet subscriptions, gym access, exhibitions, concerts: in exchange for helping with selective waste collection, childcare for the disadvantaged, tutoring in learning, shopping and cleaning for the elderly - municipal or community funding • **Financial spiral management:** community washing, ironing, cleaning, cooking, during which period the expenditure of the affected community can be drastically reduced • **Treatment of mental – social – health problems:** A "community-rest-workspace" system must be created in every building complex. A warming community space for the elderly, an internet space; for children - daycare, playground for all ages. Washing-drying room; communal cooking facilities; workstation and free Wi-Fi; toilet facility - with a water-saving system. • **Community-building sessions:** - nationalities presentations - acting and drama department - senior tournament - right to education for all ages • **Improvement of apartment and living environment:** • Radon test monitor system, for the operation of healthy and air and environment • Construction and cutting of full surface windows and doors (balcony doors) • Installation of mobile balconies for buildings • Use of recycled building material for thermal insulation and facade cladding (creating ventilated layers) • Creation of raised beds on flat roofs and operation of community gardens • Creating shading and sun-sailing streams in traffic areas and connecting drinking fountains to counteract dehydration. (target group: elderly, children) • Use of alternative energy sources with community ownership or financing - strengthening social responsibility (solar parks) • Rethinking the existing buildings and their surroundings: - Green roof (intensive, extensive) - Green facade - Creation of community spaces - Replacement of paved surfaces (reduction of surface parking - creation of underground parking garages)
Possible Practical Applications	Scheduled implementation of individual apartment building energy efficiency investment with district, capital city, state or EU support.
Potential Impact	Making buildings more livable, promoting their greening and cooling. A cohesive residential community.
Implementation Feasibility	Technical solutions are feasible. The challenge is the resources for organizing community development. The interventions do not result in significant cost savings for households, the greening of residential buildings, the design of community spaces and the greening, livability, and comfort of the living environment represent substantial progress.

PROJECT EVALUATION	
Originality	Most of the interventions are already existing, working technological solutions or community programs. An innovative element is the idea of community-relaxation-workspace in each building, as well as the contents of the junior card program. The complexity of the interventions means novelty.
Viability	Partly
Social Impact	More affordable apartments A healthier community Increasing environmental awareness Increasing comfort
Relevance to Hackathon themes	Renewable energy production, increasing energy savings, building greening and reducing paved surfaces, community functions, community building and attitude formation contribute to reducing the heat island effect in housing estates. Making the living environment more livable contributes significantly to creating healthier living conditions and improving the quality of life.
EVALUATOR FEEDBACK	
Comments and Feedback	The solution is complex, with environmental, technical and social elements
Strenghts	Improving the quality of life, more comfortable apartments and a healthier living environment, community building
Areas for improvement	Financing and development of technical solutions
BUSINESS MODEL CANVAS ELEMENTS	
Customer Segment	Residential, household
Value Proposition	Community functions, greening of buildings, shading, use of recycled building materials
Distribution Channels	Community-recreation-workspace system, junior card program
Revenue Streams	High-level renewable energy production, community financing, volunteer network
Key Resources	Households' own financial resources, municipal or state support, bank loans
Key Activities	Building and environmental greening architectural developments, community building activities
Key Partnerships	Municipality and residential communities
Cost Structure	Not determined

Table 55 Obuda Hackathon – Innovative ideas - TEAM 4

TEAM 5 – Dávid Angyalai – SCALABILITY AWARD	
PROJECT DETAILS	
Name of the solution	Comprehensive energy development of panel residential buildings
Description	The complex development of the existing housing stock with an innovative, environmentally conscious approach with small and large-scale technical interventions
Objectives	Addressing the following major issues: • High temperature • Dust and poor air quality • Expensive investments • Living environment that is not close to nature • Rainwater is not utilized locally
Technologies used	Small-scale residential developments: • Window shading • Filming of windows • Planting trees • Use of special mosquito net Local government-led interventions: • Creating a laundry room • Green facade • Creating sunshade • Extensive green roof • Solar panels • Creation of stormwater reservoirs (water retention) Private development: • Subsequent building thermal insulation with structural reinforcement • Use of recycled polystyrene concrete • so-called „green basket" solution: - green wall on a wire mesh - relieved panel (independent structure)

	• generating resources by building on, creating new apartments
Achieved Results	A more livable environment as a result of an environmentally and socially sensitive environment, healthier, more cohesive communities, and a more informed population. As a result of greening, energy savings, shading, retention of solar radiation, greening of roofs, improvement of the livability of apartments.
GENERATED SOLUTIONS	
Description	Small-scale residential developments: • Window shading • Filming of windows • Planting trees • Use of special mosquito net Local government-led interventions: • Creating a laundry room • Green facade • Creating sunshade • Extensive green roof • Solar panels • Creation of stormwater reservoirs (water retention) Private development: • Subsequent building thermal insulation with structural reinforcement • Use of recycled polystyrene concrete • so-called „green basket" solution: - green wall on a wire mesh - relieved panel (independent structure) Generating resources by building on, creating new apartments
Possible Practical Applications	Small-scale, low-cost residential developments (filming, greening); scheduled implementation of large-scale individual apartment building energy efficiency investments with district, capital city, state or EU support. Independent developments.
Potential Impact	Making buildings more livable, promoting their greening and cooling. A cohesive residential community.
Implementation Feasibility	Technical solutions are feasible. The challenge is the resources for organizing community development. The interventions do not result in significant cost savings for households, but the greening of residential buildings and their livability and comfort represent substantial progress.

PROJECT EVALUATION	
Originality	Some of the interventions are already existing, working technological solutions. An innovative element is the complex energy efficiency development of the "green basket" and the use of polystyrene concrete, a recycled building material.
Viability	Partly
Social Impact	More affordable apartments A healthier community Stronger community cohesion Increasing comfort
Relevance to Hackathon themes	Renewable energy production, increasing energy savings, building greening, reducing paved surfaces, and community functions contribute to reducing the heat island effect in housing estates. Making the living environment more livable contributes significantly to creating healthier living conditions and improving the quality of life.
EVALUATOR FEEDBACK	
Comments and Feedback	The solution is complex, with environmental, technical and social elements
Strenghts	Improving the quality of life, more comfortable apartments and a healthier living environment, community building
Areas for improvement	Financing and further thinking about technical solutions
BUSINESS MODEL CANVAS ELEMENTS	
Customer Segment	Residential, household
Value Proposition	Community functions, greening of buildings, shading, use of recycled building materials
Distribution Channels	Not determined
Revenue Streams	High-level renewable energy production, greening of buildings, public spaces
Key Resources	Households' own financial resources, municipal or state support, bank loans
Key Activities	Building and environmental greening architectural developments, community-building activities
Key Partnerships	Municipality and residential communities
Cost Structure	Not determined

Table 56 Obuda Hackathon – Innovative ideas - TEAM 5

Jelgava Hackathon

Group 1.

The problem that the group solves: reduce the amount of utility payments

Description of the idea

In the first group, for the selected user "Ieva Roze", the challenge is to reduce the amount of utility bills, a physically worn-out living environment and the desire to improve living conditions.

Problems	Consequences
Constantly increasing utility payment costs	Increased costs for utilities, "lack of money"
Lack of information about the possibilities and technologies that would ensure improvements in the technical condition of the building	High cost of repairs
Poor quality building management service	Limited possibilities to cover repair and renovation works - "Banks do not support"
Low activity of residents in building management issues	The building is in poor condition
Various interests in the restoration of the housing stock	"The state is not interested in supporting"
Few residents who would like to be involved in planning the renovation of the building	

Table 57 Jelgava Hackathon – Innovative ideas - GROUP 1

Problem

"Residents need clear motivation, because most residents of the house are not sure about the rationality of the investment and the benefit in the future"

Evaluation of solutions

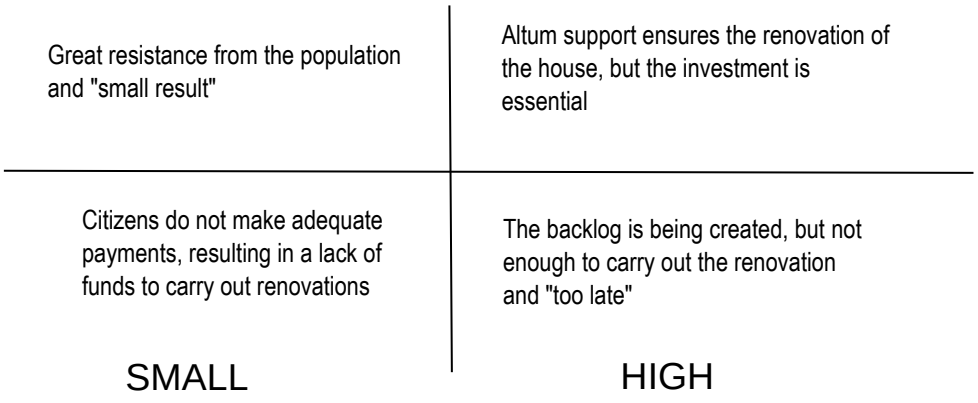

Figure 2 Jelgava Hackathon - GROUP 1 - Evaluation of solutions

Description of the project

"Building Society funding, supplemented by EU funding from a corresponding programme".

Plan for the implementation of steps 5

1. step	2.step	3.step	4.step	5.step
General meeting and choosing a leader	For the majority of the population, the number of votes 50+1	Identifying the performance of the necessary work	Project development from accumulated finances	"Let's go to Altum"!

Table 58 Jelgava Hackathon – Innovative ideas - GROUP 1

Risks

➢ There is a shortage of specialists familiar with the latest technology

➢ "Unstable credit granting situation for building renovation"

Group 2:

Energy efficiency measures

The problem that the group solves: reduce the amount of utility bills and improve ventilation

Description of the idea

In the second group, the selected user "Anna", needs financing in order to be able to renovate the building.

Problems	Consequences
Future cost concerns	Loss of housing
Commitment concerns	Increase in operating costs
Isolation from collective problems and "indifference"	Decline in quality of life
Lack of activity	Decrease in the value of property
Lack of information and funding	
Lack of self-esteem	
Low renovation quality	

Table 59 Jelgava Hackathon – Innovative ideas - GROUP 2

Problem

"A resident (Anna) needs access to finance to be able to renovate the building (own funding won't be enough)."

Evaluation of solutions

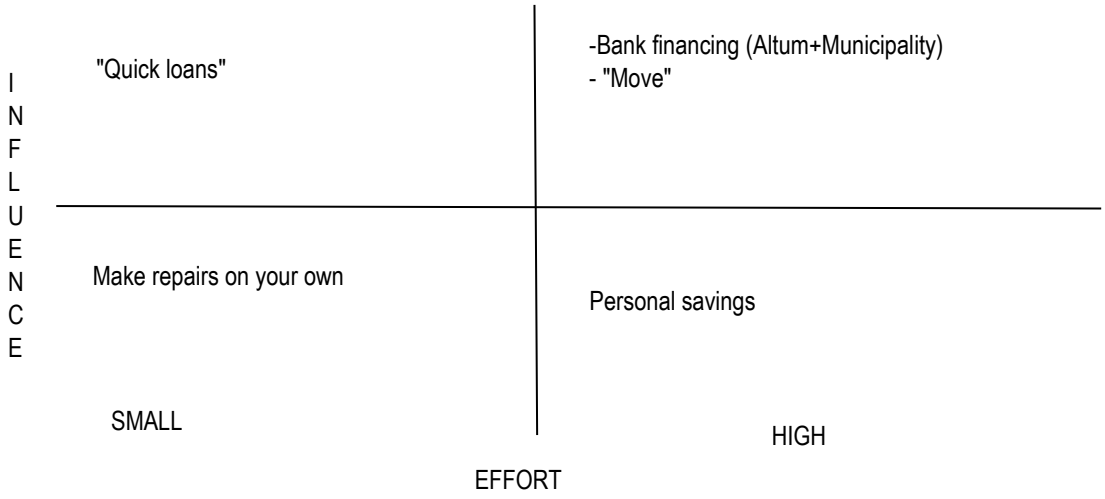

Figure 3 Jelgava Hackathon - GROUP 2 - Evaluation of solutions

Description of the project

Funding of the association, supplemented by EU and national funding

Plan for the implementation of steps 5

1. step	2. step	3. step	4. step	5. step
Meeting with the "elder" of the house to find out the steps of the project and conduct an energy audit	Attracting a project manager	Technical assessment of the building and project	Fundraising	Voting within the association and starting construction work on a positive result

Table 60 Jelgava Hackathon – Innovative ideas - GROUP 2

Required resources

Project manager, association funding for project managers

Risks

➢ Lack of interest and motivation

➢ "Political" risks in cooperation with the municipality

Group 3:

The problem the group is solving: lack of funding for seniors to renovate the building

Description of the idea

In the third group, the selected user "Krūmiņš", the challenge is the lack of funding to finance the renovation of the building.

Problems	Consequences
Building in poor condition	Building renovation lacks perspective
Citizens - pensioners with limited financial resources and the possibility to make financial commitments	The building will lose value
Residents -tenants, without interest in improving the quality of the building	The building is uninhabitable and dangerous to live in
Differences of opinion among the population - difficulties in reaching a quorum for the start of a building renovation project	Unwillingness to improve the visual view of the building
Negative, incomplete information on building renovation options and costs	

Table 61 Jelgava Hackathon – Innovative ideas - GROUP 3

Problem wording

"Resident "Krūmiņš" -senior -lacks the financial means for the implementation of the renovation project"

Evaluation of solutions

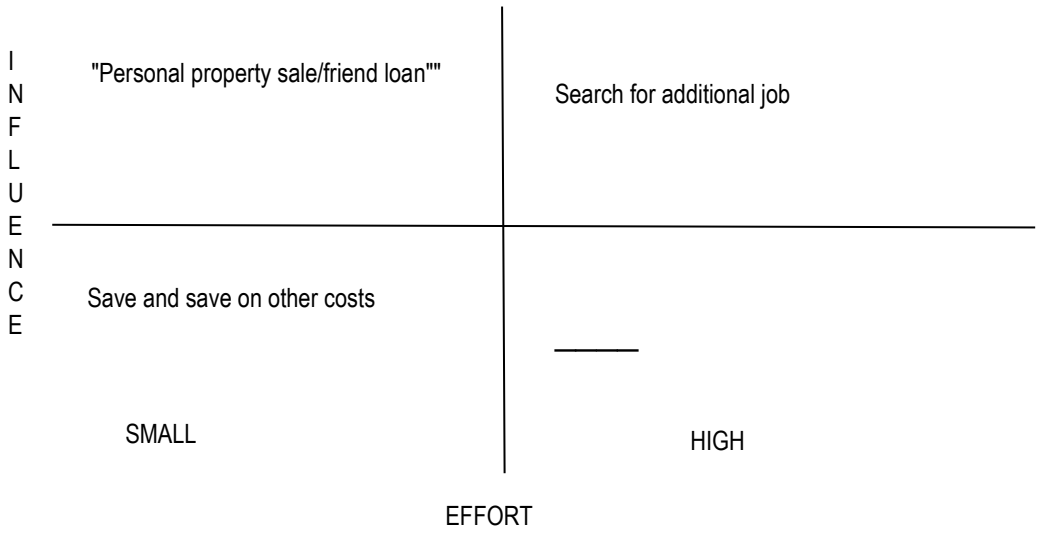

Figure 4 Jelgava Hackathon - GROUP 3 - Evaluation of solutions

Description of the project

Apply for a loan with Altum

Plan for the implementation of steps 5

1. step	2. step	3. step	4. step	5. step
Meeting with the "elder" of the house	Meeting and House Society Vote	Project development	Re-vote on the development of the project and attraction of funding	Start of the renovation project

Table 62 Jelgava Hackathon – Innovative ideas - GROUP 3

Required resources

Funding and human resources

Risks

➢ Age of borrowers (share of seniors in apartment buildings)

Group 4:

The problem the group solves: mistrust among the building society

Description of the idea

In the fourth group, the chosen user "Manager", the challenge is mutual distrust among the building's association/residents.

Problems	Consequences
No decision of the construction board has been taken	Residents are not ready to take the initiative in the process of renovating the building - a sense of joint ownership
Cannot attract financing - the challenges of the solvency of the population	Lack of understanding of part of the renovation process and competence to manage the project
Residents do not trust the building manager -low performance	The building is uninhabitable and dangerous to live in
The project (for the reasons given above) does not qualify for the program	Residents do not have an understanding of the benefits after the renovation of the building
Complicated resource/funding procedure	Residents are not ready to invest in the management of the building - the repayment of the loan "scares"
Low quality of renovation works carried out	
Unpredictable construction costs	

Table 63 Jelgava Hackathon – Innovative ideas - GROUP 4

Problem wording

"Resident Jānis Bērziņš needs to explain what the consequences are if proper housing maintenance is not ensured, because the housing begins to age, degrade and there is a risk of the building falling into an emergency state."

Evaluation of solutions

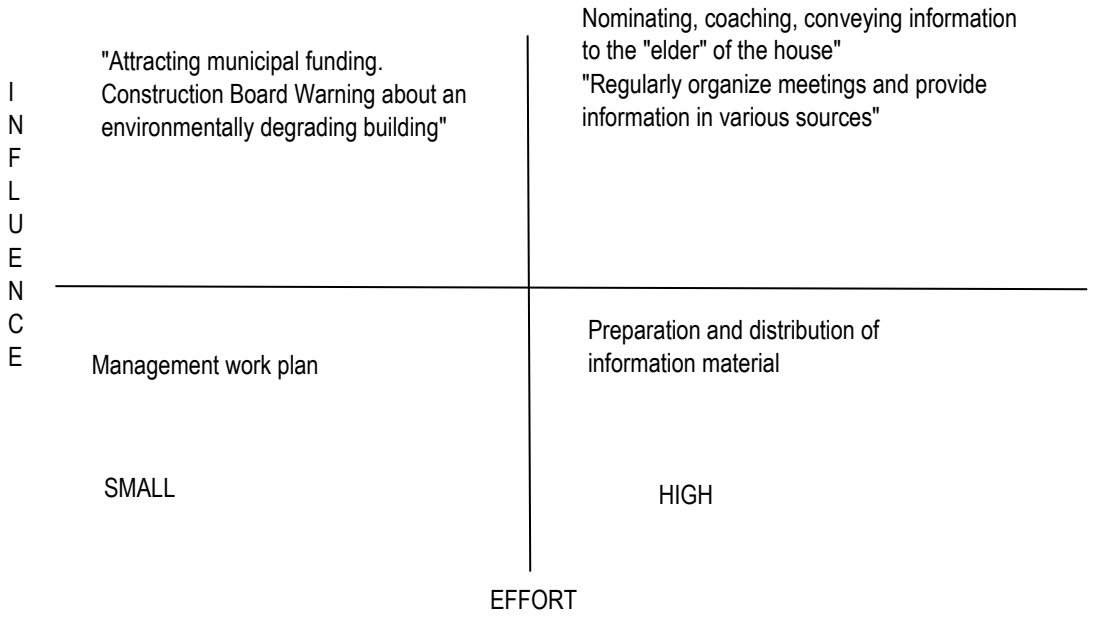

Figure 5 Jelgava Hackathon - GROUP 4 - Evaluation of solutions

Description of the project

To raise the awareness of the owners about their joint property in order to achieve the involvement of residents in the management of the building, in making constructive decisions on the management and proper maintenance of the building, in increasing the life cycle.

Plan for the implementation of steps 5

1. step	2. step	3. step	4. step	5. step
Provision of information. Examples of good practice	Meeting	Application of sanctions, penalties, as well as information on liability. Information about "bonuses"	Decision-making	Renovation of the building, active involvement of residents

Table 64 Jelgava Hackathon – Innovative ideas - GROUP 4

Required resources

Human resources - preparation of information materials

Material resources - chancellery, budget for project manager

Time -budget for the manager

Risks

➢ Indifference on the part of the population

➢ Failure to meet deadlines

➢ Mutual distrust

➢ Negative decisions from the general meeting

➢ Percentage of bad examples (soc.media)

Group 5:

The problem the group solves: mistrust among the building society

Description of the idea

In the fifth group, the selected user "Marta", the challenge is the union/residents' misunderstanding of the need for renovation.

Problems	Consequences
Residents are confused about the renovation goals and this idea is also not supported by the elder of the house	Lack of support from the elder of the house
Lack of awareness among citizens	Lack of information
Insolvency of the population and unwillingness to invest in renovation	Incomplete and incorrect information about the renovation process and objectives
	The house is ageing, residents do not have the opportunity to renovate the building
	Property value falls, utility costs rise

Table 65 Jelgava Hackathon – Innovative ideas - GROUP 5

Problem wording

"Resident Marta Bērziņa needs financing (to ensure the renovation process of the building)"

Evaluation of solutions

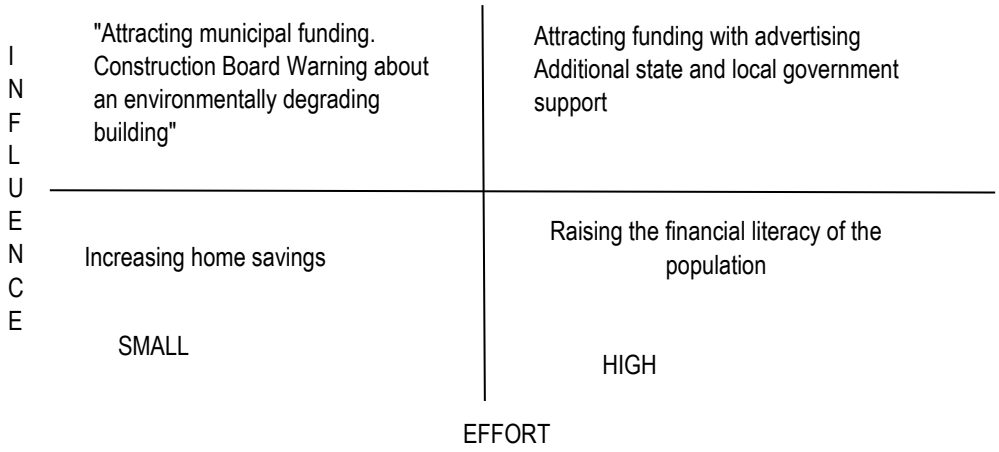

Figure 6 Jelgava Hackathon - GROUP 5 - Evaluation of solutions

Description of the project

"Expanding the principles of public-private partnership (ESCO companies)

* ESCO is a type of business that provides a wide range of services related to the energy sector.

Plan for the implementation of steps 5

1. step	2. step	3. step	4. step	5. step
Outreach activities	Legislative development and public support to facilitate the renovation process	_____	_____	_____

Table 66 Jelgava Hackathon – Innovative ideas - GROUP 5

Required resources

Financial support for the start and implementation of the project

Enterprising people

Public sector support