RE-DWELL
MSCA-ITN

Exploitation plan /
Potential inputs for policy feedback

Deliverables 5.16, 5.17 / 5.19

Lead Beneficiary: University of Reading (UREAD)
Date: September 30, 2024
Submission date: January 20, 2025
Version: 2
Dissemination level: Public

www.re-dwell.eu

RE-DWELL

Deliverables 5.16, 5.17/ 5.19. Exploitation plan / Potential inputs for policy feedback

Version 1

Authors:

Stephen Gage (UREAD)

Lorraine Farrelly (University of York)

Version	Date	Authors
0.1	16.07.2024	Stephen Gage (UREAD), Lorraine Farrelly (University of York)
0.2	26.09.2024	Leandro Madrazo (La Salle-URL)
0.3	25.11.2024	Stephen Gage (UREAD), Lorraine Farrelly (University of York)
0.4	27.11.2024	Stephen Gage (UREAD)
1.0	29.11.2024	Leandro Madrazo (La Salle-URL)
2.0	20.01.2025	Stephen Gage (UREAD)

Table of contents

Executive summary

This report outlines the work undertaken to identify the outputs generated throughout the project, both at the individual and collective levels. It also examines the dissemination of these outputs and their potential for exploitation by various stakeholders and actors involved in addressing the challenges of affordable and sustainable housing. The work has been conducted in two stages. The first exploitation plan was to provide materials and guideline to disseminate and exploit research findings (Deliverable 5.16). The second report for the exploitation plan was to further consider these materials and guidelines (Deliverable 5.17). The key messages of the project as a whole are further considered in the potential outputs for policy feedback, taking the form of a summary of policy recommendations (Deliverable 5.19).

The work in this report refers to the work undertaken by the early-stage researchers (ESRs) when they prepared their individual impact plans for their research and communication plans to demonstrate how they would respond to this in their own research. The exploitation report for the whole RE-DWELL project has taken all the ESRs' individual proposals and added to this information. All members of the research project have been included in surveys and questionnaires: the ESRs, the supervisors and the partners and other stakeholders. This is to ensure that all voices and views are included.

This information informed an in-person workshop that was run during the Barcelona conference in May 2024. The workshop comprised a series of structured discussions to consider:

- Areas for collective impact and consideration of territories of impact: intellectually, geographically, culturally.
- Publicity and promotion: the possibilities to promote the work of the project.

Involving the ESRs, the academic supervisors and the partners in this process was intended to facilitate a broad discussion and consider the range of networks, groups and working partnerships of the various stakeholders of the project. The ultimate purpose is to impact interdisciplinary disciplines and sectors involved in the provision of affordable and sustainable housing by considering all connections of members of the RE-DWELL network.

1. Introduction

This exploitation plan summarises the work undertaken by RE-DWELL early-stage researchers (ESRs), supervisors and partner organisations to propose how the original research stemming from their activity in the project can be leveraged to inform and foster activities nationally and internationally aimed at facilitating affordable and accessible housing.

RE-DWELL is an inter/transdisciplinary research project that cuts across a range of disciplines. The topics of the ESR's research relate to the 3 research key areas: Design, Planning, and Building; Community Participation; and Policy and Financing. These relate to specific topics including architecture and design, finance and economy, sociology and community engagement.

For research work to have impact, it needs to be disseminated across various groups. The potential beneficiaries of RE-DWELL's research are both experts and non-experts, including housing professionals, community groups and housing users, developers and constructors, as well as policymakers and investors. The research has been conducted across multiple regions of the EU, where the ESRs are based, providing an opportunity for widespread, location-specific dissemination.

The overarching goal of this transdisciplinary research on affordable and sustainable housing has been to generate societal impact. To achieve this, the stakeholders of the RE-DWELL project have the potential to utilise their networks and the connections established over the past three years to disseminate the project's original research and findings, thus broadening its reach and influence.

To develop the exploitation plan in a structured way and with maximum input from all project participants, the following series of steps/timeline was adopted:

1. Collect and collate individual impact plans (March – April 2024)

2. Collating the individual research to propose themes and impact for the whole RE-DWELL project (April – May 2024)

3. Exploitation Workshop at Barcelona Conference (17 May 2024)

4. Project Exploitation & Communication Plan (June – September 2024)

2. Structure of the report

The exploitation plan of the individual and collective outputs of the network activities (Deliverables 5.16 and 5.17 "Exploitation plan") are included in Sections 3 to 7:

– Section 3 of this report describes the individual ESR reports and the impact of their individual research to date.

– Section 4 describes the RE-DWELL workshop in Barcelona, how the members of the RE-DWELL project participated and the information and ideas generated from that workshop.

– Section 5 provides an overview of the responses from partner organisations to a survey assessing how their participation in the project has influenced their operational and strategic practices, both currently and in the future.

– Section 6 considers areas for collective future exploitation considering project level initiatives, long term initiatives and a communications plan to propose how the work of the project can be communicated through various channels.

– Section 7 comments on Post Occupancy Evaluation and Social Value.

Deliverable 5.19, "Potential inputs for policy feedback," focuses on how Post Occupancy Evaluations (POE) of projects included in ESRs' research can identify best practices in affordability and sustainability to guide future housing developments (Section 7) and derive potential policy feedback inputs (Section 8).

The annexes include the anticipated impact plans for ESRs (Annex 1) and supervisors (Annex 2), as well as the survey submitted to partner organisations (Annex 3).

3. Individual ESR impacts

This section will summarise the impact of individual ESR research as developed over the project. During the [Transferable Skills 3, "Communication and dissemination; Engagement and impact"](#) (TS3), conducted from March to October 2023, ESRs were introduced to impact plans, and each ESR produced a draft plan which was included in the report of the course. In March 2024, ESRs were asked to further reflect and update their impact plan as part of the preparations for the exploitation workshop at the Barcelona conference in May 2024.

3.1.   TS3 impact workshop summary

The purpose of the module 3 of the Transferrable Skills course (TS3) was to provide ESRs with the basic skills to carry out effective communication and dissemination of their research work in different contexts (community, professional, research) and to engage with different stakeholders. This work helped to set the foundation for the project's engagement with non-academic audiences (see TS3 report in Deliverable 2.8). The course covered two parts which were guided by the UK Research Development Framework[1]:

- Communication and Dissemination: Communication methods, communication media, publication.

- Engagement and Impact: Teaching, public engagement, enterprise, policy, society and culture, global citizenship.

The sessions were supported by experts from the University of Reading, including: Caroline Knowles, an expert in communication of research, methods and techniques to communicate effectively; Dr Calum Kirk, the university's impact development manager; and Dr Gloria Vargas, a researcher and architect with expertise in Post-Occupancy Evaluation. As deliverables, ESRs produced a Draft Impact Plan and Communication Plan for their individual research (see Table 1 and Table 2).

Table 1. Communication plan template

Page 1	**Title**: Make it as simple and direct as possible. Don't try and be too clever. Summary: Up to 150 words (max). This needs to capture the main ideas of your Brief in a clear and direct way and catch the reader's attention. **Picture**: A good clear photo with a pithy caption relevant to your message. **Overview**: Up to 200 words, that will draw the reader into the subject, raising some key questions that will make your reader want to turn the page Key Points or Facts and Figures box
Pages 2 – 3	**Communication Plan**: Total of up to 800 words developing the main evidence/arguments Include figures, charts or diagrams if appropriate to help make your Brief more eye-catching and appealing (but make sure they are clear and easy for non- specialists to read/use). Or use one or two text boxes giving examples or a case study (100-150 words each).
Page 4	**Policy implications**: Up to 300 words wrapping up your Brief and tackling the "so what?" question. Make recommendations for practical actions that could be taken. **References and further reading**: Up to 4 key references giving a broad representation of research on the topic and links to key information sources. This could be a mixture of your own most relevant paper and other sources. **Acknowledgements and credits**: Keep it short, e.g. This Policy Brief was written by xx, based on a longer research paper 'Title'. Don't forget to include acknowledgement of your funder and research partners if appropriate (you can send the Brief to them to help disseminate). Date (month and year) and your Contact details, including website for further info.

---

[1] https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework

Table 2. Impact plan template

1. Describe your research in no more than three sentences.
2. Identify specific beneficiaries/external stakeholders/partners who may be interested in your research:
3. What real world problems are these beneficiaries/external stakeholders/partners facing that your research could help to solve?
4. Identify how your research contributes towards impact. What will change look like?
5. What potential avenues of engaged research would be appropriate for your research?

Both these tasks provided a vital foundation for thinking about the project-level impact, communication and exploitation of the research. As these have been discussed in the TS3 report, the individual impact plans from this module are not included in this report.

Table 2. Impact plan template

1. Describe your research in no more than three sentences.

3.2.   Planning exploitation timeline

Following on from the individual impact and communications planning in autumn 2023, in January 2024 planning began for understanding project-level exploitation. The was further developed with input from Stefan Smith (research lead at the School of the Built Environment) and Lisa Lazareck-Asunta (Head of Impact Team & Senior Impact Development Manager) from the University of Reading.

It was decided each ESR would revisit and further update their impact plan. These would then be collated and larger themes of exploitation identified. These would be discussed at a workshop, which would take place at the Barcelona Conference (see Section 4). The following timeline was outlined and implemented:

1. Collect and collate individual impact plans (March – April 2024)

2. Collating the individual research to propose themes and impact for the whole RE-DWELL project (April – May 2024)

3. Exploitation Workshop at Barcelona Conference (17 May 2024)

4. Project Exploitation & Communication Plan (June – September 2024)

3.3.   ESR impact survey

An updated version of the TS3 impact plan template was sent to ESRs in March 2024 (Table 3). This reflected discussions with the impact experts at University of Reading, and took into account the more advanced stage of the individual ESR research at this point. The goal was to be as detailed and specific as possible in the responses.

Table 3. ESR impact survey

1. What Problem were you trying to solve?
2. What were your research outcomes?
3. What would success look like for this area/problem/research?
4. What has your research impact already been (workshops undertaken, etc)?
5. What are your next steps for exploiting this research (potential partners, what form it would take, what further costs/funding might be needed to make it happen)?

3.4.   Summary of ESR impact

Responses were received by all 15 ESRs. These are included in full below in Annex 1.

Based on the responses, the following is a summary of key impact achievements and future plans of individual ESR research.

Stakeholders identified across the ESR research include:

- Housing associations
- Private developers
- Local councils/municipalities
- Neighbourhood organisations
- Policy-makers, lobbyists
- National governments
- Public health bodies
- Land registry bodies
- Third sector organisations, European-wide housing networks
- Designers (architects, engineers, sustainability experts)
- Contractors, materials suppliers
- Academics, educators
- Residents living in social housing and cohousing
- Activists, citizens

Broadly, these fall into the categories of housing providers, government and policy makers, activist groups, designers, educators, and the general public.

Looking at impact initiatives, the following activities have already taken place in the course of the researchers' activity during the project:

- Seminars and presentations to architects, academics, product developers, construction companies, government agencies
- Focus groups with partner organisations
- Policy whitepapers
- External conference presentations
- Live projects, direct engagement with partners
- Journal articles and academic publications
- Lectures at academic institutions
- Social media promotion

Delving into more specific examples, each ESR has considered their research in relation to its specific context and where the best opportunities are to achieve impact. Though some of the impact has been aimed at academic audiences (journal articles, lectures), the primary focus has been in engaging non-academic audiences.

Workshops and focus group sessions with industry partners and other relevant non-academic stakeholders have been implemented extensively (see [Deliverable 4.7 "A toolbox to support transdisciplinary knowledge construction"](#)) . Some of these sessions have been part of the primary research, often towards the end of the data collection process, to test out findings and proposals. Other sessions have been organised after the primary data collection phase to spread awareness of the research and further test key findings. Many of the ESRs are planning to develop these links further through more formal partnerships in the future.

These activities run across the different research themes. For example, Annette Davis (ESR1) has run interdisciplinary workshops with research participants to test out her proposed framework for circular construction methods, and hopes to run more workshops in the future for interested organisations. Saskia Furman (ESR2) has run focus groups to test her research into resident engagement in housing retrofit and hopes to develop a Knowledge Transfer Partnership (KTP) proposal with a UK housing association to further promote the research. Andreas Panagidis (ESR8) has run workshops to address more engaged citizen participation in neighbourhood planning practices and Zoe Tzika (ESR10) has run workshops with stakeholders around community-led housing in Barcelona. Alex Fernández (ESR12) has run partner events with interviewees on his work into social housing organisations' access to capital and models of financing. Carolina Martín (ESR14) has already presented her framework for mass customised industrial construction for multi-family housing to architects, product developers and construction companies. Leonardo Ricaurte (ESR15) has run a validation workshop with Clarion Housing at the end of his primary research phase about the implementation of his proposed capabilities approach to social value in social housing. Collectively, these workshops not only raise awareness of the research, but expose the researchers to questions surrounding the practical implementation of their ideas.

Policy whitepapers are another important way to promote impact, and several ESRs have already undertaken work in this area. Tijn Croon (ESR11) has published several policy whitepapers around his work on energy poverty, social reinvestment and carbon pricing in

energy policy. He contributed to the State of Housing report by Housing Europe, and has presented at the Dutch Central Bank and Dutch ministries. Recently, a paper he collaborated on in *Energy Policy* was referenced during a Dutch parliamentary committee session, and the Dutch statistics agency is looking into incorporating the paper's methodological improvements in 2025's energy poverty monitor.

This is likely to be an area for further promoting the work after many of the ESRs have completed their PhDs. Furman, for example, discusses policy change recommendations following her work into retrofit methods and resident engagement. Mahmoud Alsaeed (ESR5) also aims to write a policy whitepaper on the UK regulatory landscape surrounding sustainable housing provision. Panagidis hopes to explore policy briefs for urban planners regarding neighbourhood planning engagement practices, while Tzika plans to do the same regarding the implementation of community-led cooperative housing practices.

Direct Engagement practices, including industry conferences, sharing of information with relevant authorities and organisations, or working directly with organisations, are also being implemented. Notably, Anna Martin (ESR7) has successfully carried out a pilot project to renovate an old school building with trauma-informed design principles, bringing together academic and non-academic partners in the process, and hopes to complete similar projects going forward. Lucia Chaloin (ESR3) is working directly with existing collaborative housing projects to address problems and implement ideas about collaborative housing practices. Aya Elghandour (ESR4) has started to disseminate her Life Cycle Costing framework for housing providers at industry conferences, and plans to share it further with public health departments and planning authorities. Marko Horvat (ESR6) is hoping to engage with local authorities, developers, and public forums to promote his research into policy-making approaches fit for local contexts to increase affordable housing provision. Androniki Pappa (ESR13) aims to work with community organisations and practitioners to promote urban commons as an urban planning typology, with a focus on Lisbon & Barcelona, including engagement with local governments as well.

Community engagement is also important to Panagidis, who aims to run training workshops for community stakeholders and housing associations, and Tzika, who proposes capacity-building workshops/training programmes for community stakeholders surrounding cooperative housing. Ricaurte has presented at industry conferences, including the International Social Housing Festival 2022, Euhonet, Housing Diversity Network 2023 conference, and run workshops with Clarion Housing and the Quality of Life Foundation. Carolina Martín hopes to work directly with designers, construction providers and housing cooperatives to promote and disseminate her industrialised construction framework.

Social media dissemination is another method being used, including many creative applications. Elghandour, for example, mentions writing a story for children and creating YouTube videos. Alsaeed is creating a library of case studies for design practitioners and writing accessible blog posts for community stakeholders, and also hopes to develop AI tools based on his proposed sustainable housing framework. Effrosyni Roussou (ERS9) is hoping to engage the local press and non-academic magazines such as e-flux and the Funambulist regarding her research into more engaged architectural education practices. Fernández is planning to create podcasts.

3.5.   IPR Issues

IPR training was included in the TS1 course (see report in [Deliverable 2.6](#)). Among the learning outcomes of the module for ESRs were knowledge of IPR policies and procedures, including a workshop and lecture run by Karim Hadjri.

Per the project work programme, the Consortium Agreement will specify IPR arrangements related to joint discoveries achieved with the involvement of various partners/ESRs, in accordance with the "Guide to Intellectual Property Rights in Horizon 2020". To date, no specific IPR issues arising from specific ESR results have been flagged.

4. Barcelona exploitation workshop

The Barcelona RE-DWELL conference included a session dedicated to the exploitation plan. This workshop took place on 17 May 2024, from 14:00 to 16:00, at La Salle Campus Barcelona.

4.1. Survey to supervisors

In conjunction with the ESR impact survey (see Section 3.3), and in preparation for the Barcelona workshop, all supervisors were sent an online survey about project impact to complete before the conference. The survey consisted of four questions:

1. Identify how RE-DWELL research contributes towards impact- what are the potential areas for impact in your discipline research / teaching context.

2. Identify specific beneficiaries/external stakeholders/networks who may be interested in the RE-DWELL research.

3. Are there any regional, local or international areas of policy that the work of the RE-DWELL project could inform and influence.

4. Are there any changes to your teaching or research practice in response to RE-DWELL project activities.

Responses were received from 9 supervisors (see Annex 2).

A survey was also distributed to Partner Organisations and received 9 responses (see Section 5, Annex 3)

4.2. Emergent collective themes

Based on the supervisor and ESR responses, the following shared themes of project impact were identified:

- Creating new frameworks and tools to bring together different partners, transdisciplinarity (industry, policy, design, academia, etc).

- Expanding definition and measure of sustainability within housing, especially with a social focus.

- Innovative housing provision practices.

- Innovative construction practices related to social housing affordability.

- Community engagement in many forms.

- Neighbourhood scale (including urban commons).

In addition, the following network/partner suggestions were generated from the responses:

- Housing policymakers, urban planners (national and local)

- Housing associations, other providers

- Designers

- Developers, investors

- Construction management

- Architecture schools

- Specific suggestions:
    - [Housing Europe](#)
    - [European Federation for Living (EFL)](#)
    - [MOBA Housing SCE (Central/SE Europe](#)
    - [Association of European Schools of Planning (AESOP) networks, Young Academics of AESOP](#)
    - [Ministerio de Vivienda y Agenda Urbana España](#)
    - [Observatorio del Hábitat y Segregación Urbana de la Comunidad Valenciana](#)
    - [L'Observatori Metropolità de l'Habitatge de Barcelona (O-HB)](#)
    - [European Association for Architectural Education (EAAE)](#)
    - [Association of Collegiate Schools of Architecture (ACSA)](#)

4.3.   Results from the workshop

This interactive session on the RE-DWELL exploitation plan workshop session is outlined below:

RE-DWELL Barcelona Conference
Exploitation Session: Developing A Project Exploitation Plan
Friday 17 May, 14:00-16:30 Congress Hall
Facilitators: Lorraine Farrelly, Leonardo Ricaurte, Stephen Gage [remote] (University of Reading)

This interactive session on the RE-DWELL exploitation plan was a moment to reflect on the current and future impact of the project collectively, beyond the individual contributions of ESRs. This contributed to the project exploitation plan, tasked with 'developing strategies and implement communication campaigns specifically directed to exploit the research findings in the non-academic sectors (administration, industry, community).'

The objective was to discuss common research themes and avenues for collective impact, as well as opportunities for publicity and promotion. After a brief introductory presentation, small groups discussed specific themes, with ideas recorded using an interactive Miro board. This was followed by a feedback session with the whole group. For efficient use of time, the groups remained the same from the Friday morning framework session.

Here is the [Miro board](#).

The session was conducted as follows.

1. Introductory presentation (15 minutes)
Lorraine Farrelly introduced the aims and objectives of the session as well as common themes of exploitation, informed by the ESR and supervisor responses to the impact questionnaire that was sent out ahead of time. This introduction set out categories for further discussion in small groups.

2. Areas for collective impact (30 minutes discussion; 15 minutes feedback to group)

Collaborative discussion between ESRs, supervisors and partners. Groups considered territories of impact: intellectually, geographically, culturally. If anyone had not filled out the online form, there was also the opportunity to do so at this point.

Form for academic supervisors.

Form for partner organisations.

The questions were:

–   How has the RE-DWELL project or activities impacted on your organisation?

–   Identify specific beneficiaries/external stakeholders/partners who may be interested in the RE-DWELL research?

–   What are the outcomes of the benefit of this project on your business or organisation activities?

–   Are there any changes to your practice or business activities in response to RE-DWELL project activities?

–   What are possible dissemination activities or outputs for the research of the RE-DWELL project in your networks?

–   Potential for informing policy or white papers - what are the possibilities and how can this be further developed and by who and when?

3. Publicity and Promotion (30 minutes discussion; 15 minutes feedback to group)

The following prompts were outlined to direct the discussion:

–   What are the possibilities to promote the work of the project?

–   In various networks

–   Within partner organisations

–   Policy white paper?

–   What can happen before the end of the research project, and what can happen after the project has been completed?

–   After completion, what are avenues for further collaboration?

4. Group Discussion (45 minutes)

After the individual discussions, a more general discussed recapped key ideas from each of the 6 groups and led to further discussion about the collective impact and promotion of the project. This included discussion about how to incorporate the framework into exploitation plans. Someone from each group was nominated note taker to record the group discussion in Miro.

Outputs and further actions

The Miro board has served as a record of the session and all the ideas collected and discussed. This has formed a key document for the development of the project exploitation plan. The individual responses from ESRs, supervisors and partners to the online forms have also served as an important record.

Based on the discussions and outputs at the workshop, Lorraine Farrelly and Stephen Gage have prepared:

- – Draft report for comment by all on implementation plan of research for RE-DWELL project

- – Draft plan for communication and dissemination of RE-DWELL project

- – Draft guidance on post-occupancy evaluation including measuring and mapping of social value

This included further discussions over summer 2024 with the supervisors and partners to further refine the impact and publicity strategies, leading to this final report.

Group composition

Six groups were chosen to ensure a balance of ESRs, supervisors, and partner organisations between the groups (Figures 1-3). In practice, several people were not able to join the session.

Figures 1-3. Group collaboration at the Barcelona conference (photos by Lorraine Farrelly).

4.4. Miro board

The interactive Miro board was used to record discussions during the exploitation workshop. Out of 6 intended groups, 4 groups participated (Figures 4-7).

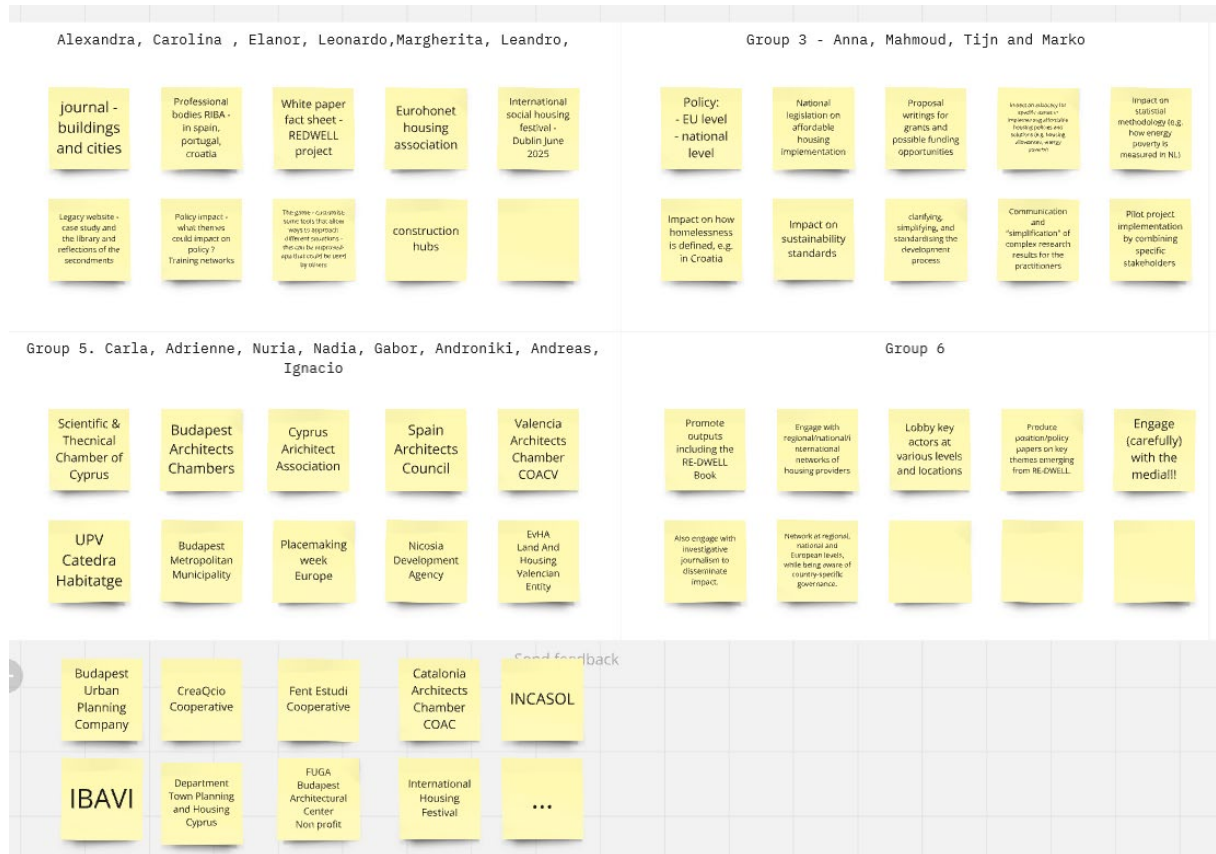These images are records of the comments from the workshops.

Figure 4. Miro board discussions from exploitation sessions.
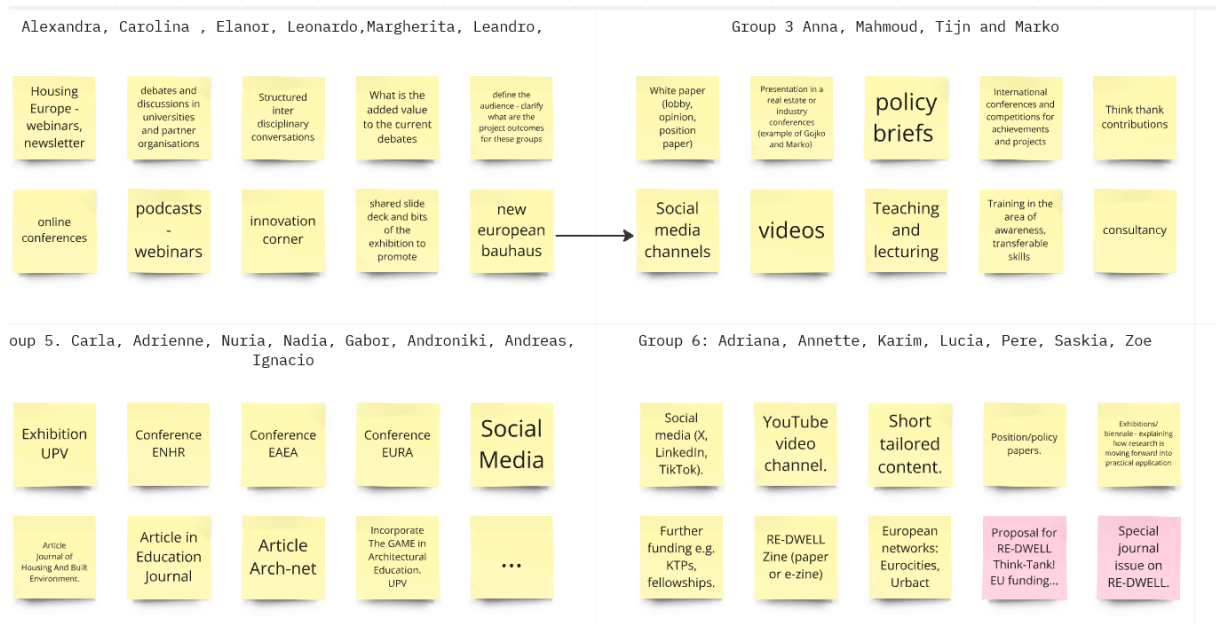
Figure 5. Ideas for collective impact.

Figure 6. Publicity and promotion possibilities.

Alexandra, Carolina , Elanor, Leonardo,Margherita, Leandro,

use of language that is for particular groups	focus groups	toolkit· may be more useful idea than framework	delft European housing	is there funding to support dissemination
make the game available on a website for everyone to use past the project	Create a legacy website / knowledge base	advocacy for the project		

Group 3 Anna, Mahmoud, Tijn and Marko

Consultancy/training/seminars	Framework have different usability at different levels and stakeholders	Opens new chanels of communication	Focus is on the process and interaction	It is a good starting point for start-ups

Group 5. Carla, Adrienne, Nuria, Nadia, Gabor, Androniki, Andreas, Ignacio

Inform future academic research	Simplify for non academic-participants	Co-creation tool	Training students in architeture schools	Consultantive tool with experts in practice

Group 6: Adriana, Annette, Karim, Lucia, Pere, Saskia, Zoe

Common understanding of the challenges.	Contextualise issues and actors.	Co-creation tool.	Accessible demo video of the game with instructions.	Sustainability of the RE-DWELL website.
Simplify definition and meaning of transdisciplinarity. lay language.	Online version of the game.			

Figure 7. Incorporating the 'framework' into exploitation plans.

5. Partner organisations

In January 2025, the partner organisations were asked again to respond to the impact survey. Responses were received from 9 organisations, with their comments summarised here (see Annex 3 for full responses). The overall results point to both the significant impact already achieved as a result of the RE-DWELL collaboration with these organisations, as well as concrete areas for future impact.

Reflecting on the impact of the project already within their organisations, multiple partners commented on the success of secondments in enriching the type and quality of research within their organisations. Examples include new links with academia, greater interdisciplinarity, and enriched understanding of housing models. In Croatia, the ESRs contributed directly to CERANEO's involvement in homeless service providers, helping develop a neglected policy area. At Clarion Housing in the UK, the ESRs made major contributions to the recent submission of Homes England Next Generation initiative (https://nextgeneration-initiative.co.uk/).

Reflecting on what other external stakeholders would benefit from the research of the RE-DWELL network collectively, responses largely mirrored those of supervisors and ESRs described previously. Responses underscored the importance of paradigm shifts in housing policy and how RE-DWELL's research helps support all organisations advocating for change. More specific suggestions include the NHF, National Housing Federation (https://www.housing.org.uk/) research forum and RUSH, Research Users in Social Housing (https://rsnonline.org.uk/).

Discussing outcomes and changes to practice, a range of responses continued to comment positively on the impact of the project. For example, *"The workshop run summer 2024 at Clarion by our ESR to reflect on what our next steps for Social Value measurement could be, was facilitated in an exemplary way and is helping us shape our next steps and thinking on Social Value. Colleagues who rarely engage with research, or have time and opportunity to reflect on their day-to-day operational activities, have welcomed the ESR's engaged curiosity and valued their input into key tasks - such as helping shape our Fuel Poverty Strategy."*

Others commented on how the project has encouraged more research-driven approaches within organisations and greater acceptance of interdisciplinary approaches, including the added value of partnering with academia. New links with government programmes were also noted as a direct outcome by partner Incasòl: *"Currently, there is a new programme of subsidies and finance mechanisms being developed from the Catalan Government to promote development of social housing on rental by private developers and housing managers. The experience on which Re-Dwell ESR research got involved is giving insight to the new government plan."*

Finally, reflecting on potential future outputs and impact, partner organisations were enthusiastic about promoting the research within their own organisations and networks through social media, events and workshops, and sharing of reports and online resources. Specific examples include Clarion's planned presentation of RE-DWELL findings at the RUSH meeting in April 2025, MRI's ambitions to publish results of the Croatia-Hungary study, and plans to share reports with regional governments in Catalonia, including the Department of Housing, Catalan Housing Agency, and Incasòl. Organisations were also enthusiastic about the potential for white papers to directly inform policy, including some who note this has already happened. Others note the importance of fostering closer links with housing organisations to involve decision-makers, as current cooperation is sometimes lacking, such as Housing Europe (https://www.housingeurope.eu/), Feantsa, (European Federation of National Organisations

Working with the Homeless, https://www.feantsa.org/), European Investment Bank (https://www.eib.org), Council of Europe Bank (https://coebank.org).

6. Areas for future collective exploitation

Based on the results of the exploitation workshop, this section will explore the collective exploitation possibilities of the project moving forward, including near- and long-term initiatives, as well as a project communications plan.

The discussions at the workshop have suggested:

1. **Areas for collective impact for RE-DWELL project**

   - Podcasts, webinars

   - Debates and discussions

   - Dissemination through social media channels, teaching and lecturing, journals and specialist publication

   - Promotion of outputs including the RE-DWELL publication

   - Lobby key actors in various locations

   - Many organisations across Europe were suggested, [Eurhonet](#) housing association, professional bodies across Europe

   - There were a set of possible conferences listed, including [International Social Housing Festival](#), June 2025

   - Incorporate the RE-DWELL toolbox to support transdisciplinary collaboration into architecture education

   - Policy related to housing in various European contexts

   - Create opportunities for structured discussions and debates with various groups, professional bodies, housing associations, developers investors

   Actions

   For the RE-DWELL team to identify a list of potential events, conferences to disseminate the work of the project that can be accessed by the RE-DWELL group.

   To list government agencies and contacts where RE-DWELL outcomes could inform policy.

2. **Areas for publicity and promotion**
   - Conferences:
     - [European Network for Housing Research (ENHR)](#)
     - [European Association for Architectural Education (EAAE)](#)
     - [European Urban Research Association (EURA](#))
   - Articles in specialist publications
   - Proposal for RE-DWELL think tank- special journal issue RE-DWELL
   - Further funding for follow on to continue the work of RE-DWELL, fellowships, knowledge transfer
   - Exhibition to describe how research is moving forwards

<u>Actions</u>

To consider opportunities for further associated funding.

To identify relevant publications for a special RE-DWELL edition.

6.1. Current project-level impact initiatives

Many of the other deliverables in WP4 "Transdisciplinary A&S housing research framework" and WP5 "Dissemination, communication and Exploitation" are closely linked with project-level exploitation. These include:

- Social media and website, including online vocabulary (Deliverable 4.4), case library (Deliverable 4.5), regular newsletters and continuous updates about the project (Deliverables 5.1 – 5.12).

- Scientific publications, as summarised in the three compendium reports (Deliverables 5.13, 5.14 and 5.15).

- The forthcoming book publication (Deliverable 5.18).

- Developing a transdisciplinary learning and research environment (Deliverables 4.1, 4.2, 4.3, and 4.6).

- A toolbox to support transdisciplinary knowledge construction (Deliverable 4.7).

All of these outputs have the potential to reach non-academic audiences, especially those related to the project website, which is easily accessible. Scientific publications, while focused on an academic audience, also have potential relevance to industry and government partners, especially if promoted and disseminated with these audiences in mind.

6.2. Near-term initiatives

Based on the series of exploitation initiatives described in Sections 3 and 4, the following are proposed as near-term strategies for exploitation:

1. For the RE-DWELL team to identify a list of potential events, conferences to disseminate the work of the project that can be accessed by the RE-DWELL group.

2. To identify further funded research projects to take forwards outcomes of the RE-DWELL research.

3. The publication of a book that will disseminate the work of the RE-DWELL project across disciplines and geographic areas (D5.18).

6.3. Long-term initiatives

Based on the series of exploitation initiatives described in Sections 3 and 4 and the near-term strategies in Section 6.2, the following are proposed as long-term strategies for exploitation:

1. Continuing the website and the networks and community of RE-DWELL to continue to have impact in various networks on sustainable and affordable housing.

2. To use the website to have a dynamic set of information of best practice examples of sustainable an affordable housing.

3. To organize annual forum to discuss progress and impact on policy and regional national development of sustainable and affordable housing.

6.4. Communications plan

This project communications plan will help to reach a range of non-academic audiences, thereby helping to exploit the project's collective impact effectively. The communication plan for the project includes the following:

- **Objectives:**
  - o To disseminate the research findings of the project to inter- and cross-disciplinary audiences in both expert and non-expert groups to ensure that the research findings can be communicated to a range of interested groups and organisations.
- **Key Audiences:**
  - o These will comprise of non-experts including homeowners, community groups and residents groups.
  - o Also experts in a range of professional fields: property developers and investors, professionals associated with planning and building design and policy makers, key decision makers and investors in housing development.
  - o Also academics and students studying housing across a range of disciplines, architects, planners, social scientists and environmental designers.
- **Key Messages:**
  - o To identify from all the ESRs' final theses future issues and key messages that can inform future development of sustainable affordable housing (See Section 8).
- **Key Channels:**
  - o These will include:
  - o Using the RE-DWELL partners to use their networks to disseminate the key messages.
  - o Using the social media channels already established to promote the work of the RE-DWELL project.
  - o To use professional and academic networks.
  - o To engage regionally and nationally across RE-DWELL partners, academics and ESRs and identify channels to promote the work of the RE-DWELL project.

The communications plan for the RE-DWELL project has some key priorities as taken from the actions identified from various workshop discussions. The RE-DWELL team includes all the ESRs, the Academic supervisors, and the partners. Many of the ESRs are still completing their individual PhDs. The work of communicating the collective results will necessarily carry on beyond the official life of the project.

Action 1

For the RE-DWELL Team to agree a list of key messages that can be communicated as outcomes from the collective research of the RE-DWELL project. The policy recommendations at the end of this document (Section 8) can serve as a starting point for this.

Action 2

For the RE-DWELL team to identify a list of potential events, conferences to disseminate the work and key messages of the project that can be accessed by the RE-DWELL group.

Action 3

For the RE-DWELL team to list government agencies and contacts where RE-DWELL outcomes could inform policy and propose who will contact these agencies and follow up on these discussions.

Action 4

To consider opportunities for further associated funding; all members of the RE-DWELL team to consider possibilities for academic and commercial funding, and as appropriate, other funding opportunities including cross and interdisciplinary possibilities.

Action 5

For the RE-DWELL team to identify relevant publications for a special RE-DWELL edition on affordable and sustainable housing.

6.5.   Summary overview of actions

The most challenging action will be to consider how to find further funding, the project has identified further research ideas and potential that have come from the discussions and collaborations with the ESRs and partner organisations. A follow up discussion group to identify possible funding streams is needed to capitalise on the work and activities of the RE-DWELL research and to discuss local and international possibilities for further collaborative research.

Another challenging action is to find connections to policy makers to inform regional, national and international policy related to housing. There are shared themes that have been identified across the research work of the project that could have international impact related to themes such as energy use, community engagement, retrofit, and post-occupancy evaluation. The partner organisations have been very helpful to use their professional networks to disseminate the work of the project. A strategic approach to make relevant connections to policy makers and agencies regionally is important so the work of the project as a whole can be communicated to relevant authorities and individuals.

Key messages are being developed by the RE-DWELL team to summarise impact for the RE-DWELL project as a whole and there are ongoing conversations about possibilities for collaborative interdisciplinary publications between ESRs, supervisors and partner institutions.

There have also been conversations about follow up events and ESRs have been involved in various activities following on from their individual research that is promoting the work of the RE-DWELL projec

7. Guidance on Post-Occupancy Evaluation and social value

As part of the consideration of impact and exploitation of the RE-DWELL project, analysis of existing housing case studies can provide further information about best practice of projects in terms of affordability and sustainability. Post Occupancy Evaluation (POE) of projects that ESRs have included in their individual research can provide useful examples to inform future projects and development in the housing sector. This will further inform the exploitation of the work of the project and could provide a useful database of project examples.

POE is a process of gathering data and information about a building and its performance after it has been built by the building's users and others involved in the buildings management. The intention is that this provides useful information for the building industry and can provide useful data and feedback to ensure that future buildings can be more efficient and effective in terms of a range of issues including user satisfaction, sustainability. There are various guides and tools that can assist in this process including the RIBA Post evaluation tool.

For the purposes of the RE-DWELL project, POE can provide useful information on social and affordable housing and feedback from users to inform future projects.

There was a presentation at the Reading summer conference on POE from POE expert Dr Gloria Vargas to explain this process to ESRs so they can consider how to use POE on case studies and projects that they have considered as part of their research (see report, Deliverable 2.8).

Social value requires organisation and public services to consider how they give wider social benefits to the community. Countries have legislation, such as the social value act UK 2012 that require investment in social value that demonstrate people focussed decision making.

There are various tool kits and resources that can be used to understand best practice around social value. For the RE-DWELL project, the housing projects and schemes that are part of ESR research have elements of social value that have informed the success of the projects for the users. Several of the ESR research projects have been specifically dealing with social value and how it related to affordable and sustainable housing.

There are many useful resources to measure social value including the Social Value Portal and Social Value UK.

The RIBA has a social value toolkit that was developed with the University of Reading that offers guidance and support to evaluate social value:

8. Potential inputs for policy feedback

This section, comprising Deliverable 5.19 "Potential inputs for policy feedback", considers the collective policy recommendations of the project. Each ESR was asked to provide a short summary statement of recommendations. Responses were received from 14 of the 15 ESRs. These statements are also included as a further reflection of the collective research impacts of the project.

8.1.   Policy recommendations

The following are the collective research results and recommendations for housing policy coming from across the ESR research of the RE-DWELL project, organised thematically. Many of the recommendations reflect general principles that are applicable across Europe, while others are more specific to individual contexts.

1. **Housing Policy Frameworks & Models**

   - **Affordability** policies need to be redefined beyond financial metrics to include housing quality measures, especially those that impact health such as cold, damp, mould and poor air quality.

   - **Post-occupancy evaluation** (POE) must be integrated as a core practice of social housing provision, including national guidelines to promote POE and government funding incentives for social housing providers to incorporate POE.

   - Existing **social value** measuring frameworks should be revised to balance financial KPIs with qualitative resident-centred metrics, a shift which will foster more resilient communities and better align management practices with residents' needs.

   - In the UK, a unified and simplified framework for sustainable social housing must align with the 2050 vision through clear, enforceable measures. The framework must promote development practices that balance ecological protection with housing demands and foster a cohesive approach to sustainability.

   - Financial incentives, such as subsidies, tax alleviation, and funding for public/private partnerships, should be used on a national and European-wide basis to promote the widespread adoption of **hybrid collaborative housing practices**. These initiatives would make these models, which promote affordability, community engagement and sustainability, more competitive with speculative developments.

   - **Cooperative housing,** such as that allowed by Catalonia's grant-of-use laws, can address the deficiencies of market-led housing provision by focusing on housing as a community-centred non-speculative asset that can positively promote greater social inclusion alongside greater affordability and sustainability.

   - **Financing models** for social housing need to be changed to allow for lower rents and a longer payback period for return on investment compared to the private sector. A new approach to help solve these financial challenges would be to set up an independent national revolving housing fund to implement investment on the supply side and modernising the housing allowance programme on the demand side.

2. **Citizen participation**

   - **Citizen participation** should form a meaningful contribution to the development of sustainable neighbourhood development, including affordable housing.

   - Dominant cultural norms and institutional stalemates influence the decision-making ability of non-expert stakeholders, including a lack of institutional trust and widespread clientelism/favouritism in urban governance. Government policy for the development of **sustainable neighbourhoods** needs to be restructured to take these factors into account and promote greater citizen participation.

   - European cities should establish municipal frameworks for **public-commons** collaborations where community-led transformations are the driver of transforming

derelict urban spaces into neighbourhood commons co-managed by active citizens and local authorities.

- Municipalities should ensure transparent governance, equitable resource allocation, and prioritise the inclusion of marginalised groups. These procedures could be integrated into existing EU frameworks on sustainable local development to achieve an EU-wide mandate.

- Open and participatory management practices in social housing estates must actively involve residents in decision-making to foster sustainable community engagement and long-term social value.

- Social housing retrofit must incorporate residents' expertise alongside the current emphasis in technical improvements; to achieve this, policy must establish requirements for resident engagement throughout project stages, measured through social and environmental metrics.

3. **Housing construction frameworks**

- Whole-lifecycle approaches to social housing should integrate **industrialised construction** and **circular economy** principles to promote sustainability and affordability.

- Policies should incentivise long-term stewardship and material reuse, and financial subsidies to social housing providers should help offset the upfront costs of circular industrialised construction.

- **Procurement reforms** are needed to foster risk-sharing, innovation and cost efficiency, while other reforms such as mandatory Life Cycle Assessments, material passports, and disassembly planning will enable responsible material reuse and carbon reduction.

- Social housing **retrofit** is crucial to achieving climate neutrality, and to be successful must incorporate passive architectural design, complementary technology, and resident expertise.

- Policies should be reformed to require passive design solutions alongside active technologies and require funding applications to demonstrate hybrid decision-making combining resident and technical expertise.

- A comprehensive framework should be developed to support **resilient and flexible housing** design, production and assembly. This should incentivise collaboration, promote long-term thinking, and establish metrics to evaluate housing flexibility and resilience while streamlining participatory customisation processes.

- To promote **mass customisation** strategies, including open layouts and adaptable designs, economic incentives should be introduced for developers and industrialised construction companies. The use of building layer analysis should also be encouraged to optimise lifespan-specific decisions, thereby enhancing environmental and economic sustainability.

- Cost-saving measures during design and construction of social housing often compromise long-term quality, and therefore policies should provide financial incentives to affordable housing providers and local supply chains to promote **health-focused quality standards**.

4. **Energy policy**

- European policies surrounding energy efficiency of social housing need clearer reporting standards, equitable access to green finance, and a balance between environmental goals and affordability.

- Perceived fairness influences the societal acceptance of energy and climate policies, and therefore **justice** must be a key principle in the energy transition away from fossil fuels, including within housing provision.

- **Energy poverty** is a social risk, and therefore must be integrated into contemporary welfare frameworks. Both quantitative and qualitative methods can be used to achieve this at multiple levels.

- Making the Renovation Wave an equitable process will require the consideration of energy poverty in housing by social housing providers, municipal governments, and larger national and EU-wide organisations.

- In the Dutch context, a green-imputed rent tax would reduce inequities between renters and homeowners while promoting energy-efficient renovations.

5. **Education policy**

- A collaborative framework is needed between schools of architecture and local governments to institutionalise live studio methodologies in architecture curricula. Such partnerships would fortify the importance of contextual knowledge and real-world projects in architectural education while fostering innovative, democratic, and sustainable approaches to public projects.

- Education reforms needed to equip design and construction practitioners with the skills needed to drive circular and industrialised transformation of the housing stock.

8.2. ESR policy statements

Each ESR was asked to produce a statement of key recommendations from their research, and the responses received are included here. One ESR did not respond.

ESR1 Annette Davis:

My research advocates for a whole-lifecycle approach to housing, integrating industrialised construction (IC) and circular economy principles to promote sustainability and affordability. Policy should support housing ownership models that incentivise long-term stewardship and material reuse, addressing speculative land practices. Financial incentives, such as subsidies for social and affordable housing providers, can help offset the upfront costs of circular IC. Procurement reforms are vital to foster risk-sharing, innovation, and cost efficiency. Digitalisation of the construction industry, along with mandatory Life Cycle Assessments, material passports, and disassembly planning, will enable responsible material reuse and carbon reduction. Finally, education reforms are essential to equip practitioners with the skills needed to drive the circular and industrialised transformation of housing stock.

ESR2 Saskia Furman:

Social housing retrofit is crucial for achieving the EU and UK's commitment to climate neutrality by 2050, while improving residents' quality of life. European social housing retrofit policy emphasises technical improvements to reach performance targets, underutilising residents' expertise and leading to performance gaps. Research across multiple European cases shows successful retrofit requires three integrated elements: passive architectural design, complementary technology, and resident expertise. With large-scale social housing retrofit

accelerating through EU and national funding programs, policy changes are urgently needed to ensure effective outcomes. Policy recommendations: require funding applications to demonstrate hybrid decision-making processes combining resident and technical expertise; extend funding timeframes and criteria beyond technical performance targets; establish requirements for resident engagement throughout project stages, measured through social and environmental metrics; and require retrofit strategies to integrate passive design solutions alongside active technologies. These changes would increase retrofit sustainability while protecting communities at-risk of vulnerability.

ESR3 Lucia Chaloin:

In Europe, since the 2000s, hybrid forms of housing production and management have emerged between public and private entities, involving different levels of integration of residents, now grouped under the umbrella term "collaborative housing". These initiatives aim to combine and advance affordability and sustainability objectives and enhance social interactions in local communities. National and European political support would be needed to scale up such virtuous experiments and make them competitive with speculative and unaffordable developments. Such support could include subsidies, tax alleviations, facilities for sustainability experiments, and incentives for new partnerships between public and private stakeholders in housing developments.

ESR4 Aya Elghandour:

Poor housing quality in England costs the NHS £1.4billion annually. It harms residents' finances and health through excess cold, dampness, mould, and poor air quality, particularly burdening low-income families and thus cannot be considered affordable. Policies should redefine affordability beyond financial metrics of rent-to-income ratios to include housing quality measures that impact health. Redefining affordability in this way can alleviate financial and health burdens on low-income families.

Additionally, cost-saving measures during design and construction often compromise long-term housing quality. Examples include excluding indoor environmental quality experts, relying on minimal building regulations that lack health evidence, reducing installation tests, avoiding durable materials, and excluding constant ventilation and energy-saving technologies due to cost, efficiency doubts, and a limited reliable supply chain. Policies should provide financial incentives to affordable housing providers and local supply chains while investing in evidence-based research to promote health-focused quality standards.

ESR5 Mahmoud Alsaeed:

Over the last two decades, UK sustainable social housing policies have been criticised for fragmentation and ambiguity. This is evident in the 2050 vision, the 2023 rollback of energy performance certificate requirements, the 2024 pledge to release greenbelts for development, and the recent plan to revise the National Planning Policy Framework. In response to these changes, this PhD advocates for a unified and simplified framework for sustainable social housing, aligning sustainable housing policies with the 2050 vision through clear, enforceable measures. Additionally, it emphasises the importance of promoting development practices that balance ecological protection with housing demands, addressing policy gaps, and fostering a cohesive approach to environmental sustainability in social housing.

ESR6 Marko Horvat:

A particular challenge for housing affordability in post-socialist countries is to implement a sustainable financing model. There is a growing need for a financial model that simultaneously allows for lower rents for tenants and for a payment system that allows for the return on investment through rents, even if the payback period is much longer than in the private sector. One approach would be to set up an independent national revolving housing fund to implement such investment activities from the supply side, or to modernise the housing allowance programme for low-income households as a demand side measure.

ERS8 Andreas Panagidis:

My research as a PhD candidate is rooted in the context of Southern Europe and more specifically in Cyprus where I investigate the potential of citizen participation in sustainable neighbourhood development and affordable housing. In this investigation, housing and supporting social infrastructure are approached from the perspective of collaborative governance. I have identified dominant cultural norms and institutional stalemates which influence the potential of participation and decision-making ability of non-expert stakeholders. Namely, a lack of social and institutional trust as well as widespread clientelism and favouritism in urban governance are especially important factors. The relationship between civil society and governments needs to be restructured when formulating policy for citizen participation in sustainable neighbourhood development.

ESR9 Effrosyni Roussou:

Establishing a collaborative framework between architecture schools and local governments is crucial to institutionalize live studio methodologies and provide students with real-world public space project opportunities. The aim is to foster hands-on experience across all stages—from conception to construction—while enabling interaction with stakeholders and professionals across disciplines. Such partnerships establish an active, mutual learning link between academia and local government bodies. On one hand, this fortifies the importance of contextual knowledge in architectural education; on the other, it fosters innovative, democratic, and socio-environmentally attuned approaches to the conceptualization, development, and implementation of public projects.

ESR10 Zoe Tzika:

My PhD research explores how housing cooperatives under the grant-of-use in Catalonia, address deficiencies in the current housing system by offering community-driven solutions to reclaim the collective right to housing. By focusing on affordability, sustainability, and social inclusion, these cooperatives challenge speculative market dynamics and showcase the potential of collective housing models to create decent and equitable housing options. The research situates these initiatives within broader social housing agendas, emphasising the social function of housing as a non-speculative, community-centred asset. Furthermore, the findings highlight how such cooperatives can foster supportive communities, and positively impact the broader neighbourhood. It is crucial to advance policies that recognise and support these functions, situating them as integral to the realisation of the right to housing.

ESR11 Tijn Croon:

The importance of justice in the energy transition, highlighted by movements like the yellow jackets, underscores how perceived fairness influences societal acceptance of energy and climate policies. My PhD research seeks to position energy poverty as a newly emergent social risk and argues for its integration within contemporary welfare frameworks. By employing quantitative and qualitative methods, I demonstrate how entities at multiple housing

governance levels –from the EU's Social Climate Fund to fiscal responses to the energy crisis, and from municipal 'fix teams' to interventions by social housing providers– can collectively support a just transition, ultimately ensuring that the Renovation Wave is achieved in an equitable way.

ESR12 Alex Fernández:

Alex's work explores the intersection of housing affordability, energy efficiency, and social equity. For Dutch housing, it recommends a green-imputed rent tax to reduce inequities between renters and homeowners while promoting energy-efficient renovations. In Europe, it highlights the contradictions in ESG financing for social housing decarbonization, advocating for clearer reporting standards, equitable access to green finance, and policies that balance environmental goals with affordability. These findings inform integrated strategies to advance sustainable, inclusive housing policies across diverse contexts.

ESR13 Androniki Pappa:

European cities should establish municipal frameworks for public-commons collaborations in urban regeneration, facilitating community-led transformation of inactive, underused, or derelict urban spaces into neighbourhood commons, co-managed by active citizens and supported by municipal institutions. This approach promotes inclusive civic engagement, addresses spatial inequalities, and empowers communities to take ownership of their urban environments through the creation of community-led social infrastructure. Municipalities should ensure transparent governance, equitable resource allocation, and prioritize the inclusion of marginalized groups. To achieve an EU-wide mandate, this policy could be integrated into existing EU frameworks on sustainable local development to ensure funding, cross-city collaboration, and scalability.

ESR14 Carolina Martín:

Policy recommendations for implementing mass customization in affordable and sustainable housing should address the risks of obsolete housing typologies while fostering sustainable, user-centric solutions through the following measures:

-Develop a comprehensive framework to support resilient and flexible housing design, production, and assembly by incentivising collaboration among stakeholders and promoting long-term thinking.

-Introduce economic incentives for developers and industrialised construction companies to adopt mass customization strategies, integrating open layouts and adaptable designs.

-Encourage the use of building layer analysis to optimize lifespan-specific decisions, enhancing environmental and economic sustainability.

-Establish metrics to evaluate housing flexibility and resilience while streamlining participatory customisation processes.

ESR15 Leonardo Ricaurte:

My PhD research focuses on bridging the gap in social value assessment practises within housing associations in the UK and the Netherlands and explores the impact of top-down policy on grassroots dynamics at the housing estate scale. In particular, the work highlights the urgent need to integrate Post-Occupancy Evaluation (POE) as a core practise, addressing an existing policy gap. The findings underscore that design or top-down procurement alone are not sufficient to meet the complex needs of housing estates; rather, open and participatory

management practices (that actively involve residents in decision-making) are essential to fostering sustainable community engagement and long-term social value.

Key recommendations from this study include (1) national guidelines to promote POE, (2) incentivising social housing providers to incorporate POE through government funding, and (3) revising social value measurement methodologies to balance financial KPIs with qualitative resident-centred metrics such as residents' capabilities. Addressing these points could help housing associations better align their management practises with residents' needs, ultimately fostering more resilient communities.

Annex 1 – ESR impact plans

In March 2024, ESRs were asked to update their impact plans according to their latest research and dissemination activities. Responses were received from all 15 ESRs, included below. The length and formatting of the plans varied considerably between the ESRs; some continued the format from the TS3 impact plans, while others followed the revised format asked for. Some have been reformatted here for greater consistency.

ESR1 Annette Davis:

> **The problem:** Integrating design for disassembly principles with industrialised construction practices:
>
> Although there are multiple challenges preventing the adoption industrialised construction in housing, there is an increase in research and application of such an approach. While this trend is positive, the focus is on the building assembly. Future disassembly either during the use phase for building adaptations and maintenance or end of life phase is often neglected. There is a severe lack of long-term vision and consideration for the whole life cycle of buildings and their constituent parts. This requires systems to be in place across multiple stakeholders to facilitate the safe dismantling of building parts to enable reuse or upcycling, without damaging components or connecting parts.
>
> **Relevant stakeholders:** The following three key stakeholder groups were identified within the research. Some examples of problems experienced by each group have been provided, although these overlap and are shared between stakeholders:
>
> - Housing providers: Local councils, land registry bodies, housing associations, private developers
>   - Political pressure to integrate circular economy principles into housing developments.
>   - Circular construction is more expensive.
>   - Lack of understanding and social acceptance from residents.
> - Designers: Architects, structural/civil engineers, services engineers, sustainability experts
>   - Lack of understanding in circular design principles and practical application.
>   - Resistance to change from industry.
>   - Complying with building regulation.
> - Contractors: Off-site house builders, suppliers, demolition contractors
>   - Demolition is business as usual.
>   - High set-up costs for off-site contractor factories.
>   - Supply chain issues and lack of second-hand/reuse market.
>
> **Research impact:** Research impact will be achieved through the outputs, which are an interdisciplinary framework and guidelines covering the "dos and don'ts" of circular construction primarily aimed at the three stakeholder groups, identified as housing providers, designers, and contractors. Further impact will be achieved through the interdisciplinary workshops, which are the last stage of development and validation with former interviewee participants. It is hoped this will not only stimulate fruitful discussions around the realisation of circular housing but improve the likelihood the participants will go on to use the framework and guidelines within their organisations.

Exploiting the research further: Opportunities to exploit the research and increase changes of adoption could include:

- Workshops with interested organisations and companies.
- Publication of articles.
- Dissemination on social media (e.g. LinkedIn).
- ERC grant or post-doc to take the research further.

ESR2 Saskia Furman:

The problem: Social housing retrofit focuses on upgrading buildings to higher standards, while Deep Energy Retrofit (DER) prioritizes achieving energy performance targets to support the green transition. There is growing consensus that residents possess valuable expertise that should be leveraged to design retrofit strategies that enhance both environmental and social sustainability. Additionally, social housing residents often place greater importance on the non-energy benefits of retrofits than on energy efficiency alone. However, the integration of residents as active stakeholders in decision-making remains limited, often leaving them as passive recipients of information. This disconnect can result in performance gaps and undermine resident empowerment.

High levels of resident influence in retrofit plans require a long-term view: time spent earlier in the project reduces time delays, the performance gap, support ageing-in-place, and improve wellbeing. However, funding commitments often come with strict requirements, such as spending deadlines (SHDF), energy performance outcomes (SHDF, NGF), or are received after completion (NGF), all of which can de-incentivise time spent properly integrating resident engagement.

Research outcomes: The research shows that retrofit should contain three key components to achieve holistic sustainable outcomes that balance social, environmental, and economic factors: (1) architects who value habitability and passive design strategies; (2) retrofit technologies to complement passive design; and (3) resident stakeholders to bring situated knowledge. Hybrid decision-making can facilitate retrofit with these three key components. Hybrid decision-making should integrate residents early and throughout each stage of the retrofit process: before retrofit design, during retrofit design, during retrofit construction, and after retrofit completion.

What would success look like for this area/problem/research?
These findings have the potential to significantly shape and transform retrofit practice. By emphasising evidence from practical retrofit examples and expert stakeholders, it becomes feasible to illustrate the positive impact of enhanced social sustainability—improved mental and physical wellbeing of residents—on energy efficiency and long-term economic viability. Such insights can effectively influence policies and practices concerning the involvement of residents in retrofit decision-making processes, resulting in high-quality retrofit and holistic sustainability, tailored to diverse communities living in social housing.

Policy changes:
(1) Reduce the emphasis on performance targeted DER in favour of increasing passive retrofit solutions, (2) amend funding obligations to encourage time spent engaging residents before construction, (3) create a policy obligation to engage residents in retrofit decision-making supported by guidelines.

Practice:
Suggestions of good practice incorporating resident engagement in retrofit.

Perception:
Cultivate trust between building owner and resident, often at odds with one another.

What your research impact has already been?
Three articles have been written and await peer review:

- Literature review: to discover the context of social housing, affordable housing, and housing hyper-commodification. This should help define the problem and can be used to ensure the correct policies are used to target social housing retrofit.
- Systematic literature review: to discover what social housing retrofit with resident engagement has already occurred, to learn lessons to bring forward for building owners and architects.
- Thematic analysis: the results of interviews with high-level stakeholders to identify barriers and drivers of social housing retrofit and suggest good practices to further develop and apply to case studies.

A focus group with residents, architects, and third sector building owner is being developed to test retrofit methods to see what does and does not work.

Next steps for exploiting this research: I am developing Knowledge Transfer Partnership for two years with a UK Housing Association (HA). A proposal will need to convince the HA to sponsor my proposal and jointly write an application to the government alongside a UK University.

ESR3 Lucia Chaloin:

The problem: In the context of the vertiginous rise of housing prices in European cities and increasing socio-economic vulnerabilities, the interest in alternative and innovative forms of housing production related to more sustainable ways of life, is gaining momentum across wider parts of societies. However, this trend operates within the dominant framework of a pragmatic approach to solving social problems, based on the involvement of individuals, groups and organisations from the private, civic and third sector in relation with established actors of social welfare, such as local authorities and social housing organisations. The research addresses the question of how these forms of collaborative housing operate in Southern European cities and how they transform, or not institutional arrangements.

Relevant stakeholders: Public administrations in City councils, third sector organisations, private developers and citizens interested in collaboration and sharing. For example, public administrations of cities involved in European networks to foster collaborative housing (e.g. NETCO), public housing providers, associations and civil society networks of cohousing, informal groups of residents living or willing to live in shared forms of housing.

Real-world problem to solve: Social systems are increasingly developing reflexivity strategies to navigate the complexities of their environments. For example, certain local administrations are fostering social innovation in housing provision embracing more collaborative forms that integrate beneficiaries' participation. Citizens and local organisations are demonstrating an increasing desire to participate in self-determination and governance of housing projects and welfare provision, while feeling inadequate with respect to existing codes, standard procedures and protocols.

Impact: Social systems are increasingly developing reflexivity strategies to navigate the complexities of their environments. For example, certain local administrations are

fostering social innovation in housing provision embracing more collaborative forms that integrate beneficiaries' participation. Citizens and local organisations are demonstrating an increasing desire to participate in self-determination and governance of housing projects and welfare provision, while feeling inadequate with respect to existing codes, standard procedures and protocols.

Engaged research: Working in collaborative partnerships with stakeholders interested in fostering collaborative housing, with an ethnographic approach aimed at involving the less heard voices in the development of a project. Simultaneously, conducting an action-research activity in ongoing collaborative housing projects to address daily problems while adopting a process-oriented approach to enhance efficient collaborative interactions.

ESR 4 Aya Elghandour:

The problem: If the house poses a risk to the household's health, it cannot be regarded as affordable only based on financial metrics such as rent to income.

When building affordable dwellings, reducing quality might be prioritized to save construction costs; however, these savings might lead to future suffering from poor quality.

Poor housing quality in England currently costs the NHS £1.4 billion annually. Excess cold and falls on stairs are the two most expensive hazards, costing the NHS £857 million and £218 million, respectively.

The question is how housing providers can create dwellings that are affordable for them to build and manage and affordable for the household's health and financial well-being to live in.

Relevant stakeholders:

- Housing providers.
- The Public health sector.
- Households.

What does change look like because of your work?

- The Life Cycle Costing framework I propose enables housing providers to structure dwelling information and assess long-term costs impacting both themselves and the end-users. This framework considers all elements that affect a dwelling's performance, which influences the household's health and financial well-being, aiding their decision-making process. It allows for an understanding of trade-offs and potential health outcomes.
- The outcomes of my case study analysis would provide solid evidence regarding the upfront and ongoing costs associated with ensuring the goal of homes is both affordable and health-oriented. The evidence could advocate for the necessity within the industry and market to expand the availability of essential equipment and materials to achieve this goal in the UK. This includes ensuring access not just for purchasing but also for maintenance, highlighting the importance of a reliable supply chain.
- The change is the realization of financially viable housing for providers to construct, maintain, and conducive to residents' health and financial welfare. This approach has the potential to significantly lessen the burden on the National Health Service (NHS) by promoting healthier living environments.

What is your next step to achieving impact?

- Develop the framework.
- Conducting the case study analysis to have values for Life Cycle Costs for a traditional house (business as usual) compared to a dwelling designed and constructed to be affordable and healthy.

What is your next step in your communications plan?

- Housing providers: present my results in industry-relevant conferences.
- The public health sector: collaborate with environmental health departments and planning authorities to share awareness of the healthy housing route.
- Households: Write a story for kids about dampness and mold so that they know the importance of ventilation and can determine whether their house is healthy. Summarize in a YouTube video what makes a house a contributor to health and financial wellbeing.
- Academia: Publish journal articles in open-access journals and present my research at conferences.

ESR5 Mahmoud Alsaeed:

The problem: The absence of a cohesive policy, theory, and practice framework for the parameters of sustainable social housing is a constant challenge in contemporary academic discourse and housing projects. Consequently, this study attempts to address the lack of a precise and generally recognised approach for the development of sustainable social housing provisions. This goes beyond mere conceptualisation to include practical implementation strategies, policy recommendations and theoretical articulation of what constitutes the perception of sustainable housing provisions. Furthermore, the research addresses the complexity and fragmentation of sustainable housing policy and practice, particularly in the UK context.

Relevant stakeholders: The proposed framework will be developed with the aim of serving multiple stakeholders, including (1) housing providers, particularly housing associations, (2) practitioners involved in the provision of housing, such as architects and sustainability designers, and (3) policy-makers. Whilst policy-makers may not be the main beneficiaries of the framework, however in its capacity as a clarifying tool has significant potential to support such beneficiaries in the further development of local and national regulations for sustainable social housing.

There are two types of challenges associated with the identified stakeholders. These challenges include methodological and organisational challenges.

Real world problems: Pursuing sustainable social housing poses several methodological challenges for housing providers and associations. Despite serious efforts to create a pragmatic framework, these organisations often encounter obstacles that hinder progress. One such obstacle is the lack of accurate and up-to-date data on the housing stock. The lack of such data, which is essential for making informed decisions for future development, leads to a climate of uncertainty and impairs the effectiveness of interventions. Furthermore, implementing sustainable concepts requires specialised building systems, the procurement of which depends on the availability of a sustainable supply chain. However, the ability to build such a supply chain is often seen as unattainable by the private sector, leading to a lack of investment. Another challenge lies in the level of cooperation between housing providers. The prevailing development model places great emphasis on local visions and targets, preventing the development of a cohesive, nationwide partnership between providers to share resources and exchange expertise. Given these challenges, the proposed

framework is a standardised tool to help providers overcome barriers, promote resource sharing and facilitate collaboration with local and national authorities.

Organisational challenges related to practice and policy-makers: At the national level, participants described the government's goals and visions as unrealistic in terms of time to achieve them.

What will change look like? This research contributes to impact by clarifying, simplifying, and standardising the development process of sustainable housing provision. This will be achieved by establishing clear guidelines for the provision of sustainable housing at a national level and providing clear guidance for planners, developers, and providers at an organisational level. Change will translate into improved understanding and implementation of sustainable social housing policies and practises among housing providers and practitioners. It will also support compliance with best practice in the development of sustainable social housing and enable a rapid response to housing demand without compromising development capacity while improving environmental conditions.

Dissemination activities: This study has actively engaged with a national and international audience through participation in conferences, competitions, and journal publications. Notable conference participation includes presentations at the Housing Studies Association annual conference 2023, where housing challenges were explored and mapped. An analysis of UK sustainability policy was also presented at the Pennsylvania Housing Research Centre conference in 2024. In addition, the fundamental sustainability framework to be presented at the RE-DWELL conference in May 2024 underlines the study's commitment to academic dialogue and progress.

Easy-to-understand and accessible blog posts were written for community stakeholders. These posts cover topics such as perceptions of sustainability, research methods and the role of research in promoting housing development. To meet practitioners' needs, emphasis has been placed on compiling a comprehensive library of case studies that showcase exemplary practice in housing, social housing, and sustainable development. One notable case study is the Deben Fields project, written in collaboration with the project architects and sustainability designers, which provides valuable insights for practitioners.

Project exploitation: Two different interpretations of exploitation are described in this document. At the national level, exploitation is defined, following the framework outlined by the UK Research and Innovation agency, as the strategic use of project results – their impact – for broad objectives, encompassing both societal change and commercial endeavour. The European Commission, on the other hand, defines exploitation as "the use of results in the further development, creation, marketing or improvement of a product or process or in the provision of a service in the context of standardisation activities or policy development." This includes commercial, societal, political and knowledge dissemination objectives, including the provision of policy recommendations through collaboration with policy stakeholders or facilitating the uptake of results by other institutions.

Potential exploitation pathways

Given the focus of this study on developing a framework in sustainable social housing that aligns with the national imperative to transition to zero carbon housing. This should also contribute to the global discourse on housing sustainability, there are numerous opportunities for further exploitation:

- Developing a policy white paper that aims to address shortcomings in the UK's existing regulatory landscape, particularly in relation to the complexities of delivering sustainable housing and advocating for an overhaul of the national sustainability and housing policy framework.
- Producing a comprehensive guide for practitioners that provides clear, actionable strategies for the housing development process, facilitating the efficient and effective implementation of sustainable housing practises.
- Investigate the potential for the development of artificial intelligence tools based on the framework that are capable of simulating compliance with sustainability and housing regulations. Such tools would not only optimise the use of resources but also streamline project timelines, ultimately improving the sustainability of housing projects and reducing the costs associated with its development.

ESR6 Marko Horvat:

The problem: What were the main policy developments in selected countries after its modernisation? What is the proper framework for analysing successful policies to create more affordable and sustainable housing provision? What are the policy recommendations for the national and local (capital) contexts?

Relevant stakeholders:

- Academia
- Policy makers and practitioners (local and national politicians)
- Media
- CSOs
- Home seekers/ Market

Real-world problems:

- Academia – understanding transdisciplinary approach, housing policy comparison framework, impact outside academia
- Policy makers and practitioners (local and national politicians) – low capacity, knowledge and experience, public pressure, low budget
- Media – nothing to write about, not interested, no public arena or agency
- CSOs – overload with responsibility, all eggs in one basket (e.g. if CSO stopped providing homeless service, there would be an even greater problem)
- Home seekers/ Market – unsustainable prices, chaos and lack of housing options, immigration

Impact:

Clarify what kind of research approach works (or does not work) and how to best use secondary data in comparative housing

How to approach policy making that is useful and impactful, fit for local context, to increase affordable housing offer

Help in creating advocacy and public arena for discussion on housing issues

Engaged research:

You are likely already doing some, but are there others that would enhance the impact of your work?

Discussion with local authorities on local housing needs, on their existing efforts and bottlenecks in creating better housing condition for the residents.

Discussing housing prices with developers – how much is a nett m2 before selling. "if housing does not cost appreciably more than new construction, then it is hard to understand why policies oriented toward housing supply would be the right response to this problem. Hence, we focus on the gap between housing costs and construction costs".

ESR7 Anna Martin:

The problem: I have 3 connected but quite different topics. First, a comparative study with a juxtapositional approach (Denmark-Hungary). Second, clashing vulnerabilities for the right to affordable housing. Third, housing and healing: the role of trauma-informed design in the supportive housing sector.

Outcomes: A concrete example is a renovation project at a temporary home for families (Pécs-Hungary) guided by trauma informed-design principles (see poster).

It is crucial to initiate real-life projects like this (beside serving academic purposes). Especially that my research aims to inform more equitable and effective policy interventions that address the root causes of housing insecurity and class-based disparities.

Success: To pave the way for future projects.

Impact already undertaken: I got funding for the pilot project. To renovate an old school building with trauma-informed design principles.

It was already a huge success to bring together the knowledge and expertise of academic and non-academic members of our society, particularly those in the housing and care sector, to explore the opportunities and challenges of implementing psychologically informed design principles.

Next steps: will continue to work on trauma-informed design project(s). As I still have 2 years from the doctoral school in Hungary, I have the chance to continue my research too. I will also apply to ESF+ and other EU Funds with the help of academics and non-academics from Denmark, Sweden, Hungary, Austria and the US. (With a strong focus on Social Sustainability and Innovation).

ESR8 Andreas Panagidis:

The problem: The global housing crisis is understood in this research project as an urban governance crisis stemming from inequitable decision-making processes in planning. These processes are entrenched in institutions which have developed over time and cannot change easily. State planning and market development actors hold positions of greater decision-making power in the provision of housing, leading to a widespread and increasing reliance on the speculative private sector to provide housing in the form of homeownership. Largely, power imbalances in sustainable development as a whole have mostly excluded the citizen stakeholders in agenda-setting processes. This problem reframes the housing problem by focusing on aspects of social justice and decision-making practices that impact equitable access to housing, urban social infrastructure and revisit the concept of neighbourhood planning as a collaborative effort.

Relevant stakeholders: Innovative and place-based models for citizen participation may lead to collaborative governance processes and institutional innovation in planning and housing. The Urban Living Lab approach is a recent method gaining attention in

efforts to facilitate experimentation in planning towards the production of the collaborative neighbourhood and socially sustainable housing environments. Due to the scale of my research being determined by the neighbourhood level, and with the methodology of Urban Living Labs driving the processes of investigation, the local municipalities and town planning department are expected to be key partners/beneficiaries.

Real-world problems: The partner organisation Cyprus Land Development Corporation (CLDC) has faced the problem of a lack of political will at the state level in addressing budgeting requirements for affordable housing. From the perspective of housing residents as the stakeholders affected the most, this leads to their marginalisation in almost all aspects of affordable housing governance. In addition, problems of citizen-local authority trust are common at the local scale. This results in antagonistic relationships which often involve disputes for daily problems such as street cleanliness and vandalism of public spaces, implicating not only housing but housing environments in the problems which accumulate from lack of political will. A clear organisational structure which can facilitate the collaboration between local government officials, the CLDC and citizens for the co-production of social infrastructure is lacking at the moment.

Impact: My research aims to address the above gaps by bringing the three types of actors together along with academia in a quadruple helix of collaboration through workshops and discussion groups. Change will translate into improved understanding of socio-economic-environmental problems of neighbourhoods and the required policies and practises among housing providers and local authorities to address them. Changing the governance processes of planning at the neighbourhood level will be a priority in planning and housing reforms in order to enable collaborative governance and foster the co-production of social infrastructure and services that support affordable housing.

Next steps:

The research could be utilised further by:

- Continuing the application of capacity-building workshops or training programs for community stakeholders as well as housing associations to implement research recommendations.
- Policy briefs or reports targeting housing policymakers and urban planners.
- Dissemination through news media, academic articles and social media.

ESR9 Effrosyni Roussou:

The problem: Architectural education seems increasingly inadequate to prepare future practitioners for the challenges of the current realities. However, acupuncture applications of alternative approaches to that of the traditional design studio, often prove insufficient in challenging the deeper ailments within architectural education, which result from architecture's strong connections to capitalism and modernity. The aim of this research is to re-contextualise community-engaged and design-build pedagogies within the broader anti-hegemonic discourse and paradigm of the commons, as a way towards undermining those connections, with a focus in the peripheral regions of the European South.

Relevant stakeholders:

- Educators
- Academics
- EAAE
- ACSA

Real-world problems:

Reforming architectural education so that future graduates can tackle ever-shifting and increasingly volatile realities.

Impact:

Reforming architectural education so that future graduates can tackle ever-shifting and increasingly volatile realities.

Engaged research:

- Talk with former students of design-build activities
- Talk with educators in architecture schools of the European South
- Disseminate activities to local press, or international relevant magazines (not strictly academic, e.g. e-flux, the Funambulist etc).

ESR10 Zoe Tzika:

The problem: The problem addressed is the limited support and recognition of community-led housing models as viable solutions to societal issues, despite their potential benefits. Specifically, the research focuses on the challenges faced by Barcelona's grant-of-use model, which holds promise but encounters obstacles to achieving broader impact.

Outcomes: The research aims to identify barriers and opportunities for the wider adoption of community-led housing models, with a focus on the grant-of-use cooperative housing in Barcelona. It investigates various aspects, including ownership structures, spatial outcomes, forms of living, and management practices within these initiatives.

What would success look like?
- Increased understanding and recognition of the transformative potential of community-led housing models.
- Development of strategies to support and enhance:
  - Community-oriented approach of this type of housing.
  - Participation and collaboration with external entities.
  - Diversity and inclusion of the model.
  - Relationship with the broader neighbourhood.
  - Architectural innovation.
  - Integration of community-led housing more effectively with the public.
  - housing sector.

Impact already undertaken:
- Workshops, seminars, or conferences have been conducted to disseminate preliminary findings and engage stakeholders in discussions about community-led housing.
- Collaborations with local housing cooperatives, NGOs, or government agencies have been initiated to disseminate the insights for the research.

Next steps:
- Potential partners could include:
    - Housing cooperatives, community organisations, and advocacy groups.
    - Urban planning departments and housing authorities.
    - Academic institutions and research centres focusing on housing and urban development.
- The research could take various forms, such as:
    - Policy briefs or reports targeting policymakers and urban planners.
    - Capacity-building workshops or training programs for community stakeholders.
    - Collaborative projects with housing cooperatives to implement research recommendations.
    - Dissemination through blog posts and articles in non-academic media.
- Further costs/funding might be needed for:
    - Data collection and analysis.
    - Organizing workshops, conferences, or outreach events.

ESR11 Tijn Croon:

The problem: A lack of targeted policy instruments to alleviate energy poverty among vulnerable households

Outcomes: My research identified effective local interventions, such as behavioural energy coaching and responsive shallow retrofitting, that could serve as energy crisis measures. We also found (based on interaction effect analysis) that these are more effective if targeted at households experiencing energy poverty. We published a paper in Energy Policy that argues for a nuanced approach to energy poverty indicators, moving beyond simple binary classifications to include measures like the poverty gap. Both these papers utilised microdata from all 17 million Dutch households. Additionally, we conducted six focus groups with housing associations in England, France, and the Netherlands, focusing on targeted energy poverty alleviation strategies. This is particularly relevant because a big proportion of households in energy poverty lives in social housing. Our findings suggest that reforms in housing allocation and prioritising retrofits where they are most needed could be impactful ways of doing this.

What would success look like? Contributing to the conceptual and methodological understanding of energy poverty and the assessment of targeted renovation and alleviation policies

Impact already undertaken: Our research has already made some significant strides, including the publication of an article in a Q1 journal and the submission of other papers currently under peer review. I have presented our findings at approximately ten conferences and published several policy whitepapers, including a collaboration with my secondment partner, EFL. Additionally, I contributed to the State of Housing report by Housing Europe and presented our findings at important Dutch institutions like the Central Bank and various ministries.

Next steps: This autumn, I will continue working on this research at Columbia University in the US, supported by a Fulbright grant. I plan to compare American and European approaches to targeted social reinvestment of carbon pricing revenues and explore mutual learning opportunities. While the grant provides a good start, additional funding would be very beneficial since New York City is filthy expensive.

ESR12 Alex Fernández:

The problem: The decarbonisation of the housing stock poses specific questions for the financing on Social Housing Organisations (SHOs). The introduction of ESG criteria in financial markets aims to improve access to capital for SHOs. However, it is only those larger and more commercialised SHOs that benefit from this type of funding.

Relevant stakeholders:

SHOs, legislators, lobby, research agencies …

Real-world problems:

- SHOs: Accessing capital
- Legislator: Policy design and implementation

What will change look like?

The contributions my research makes to impact (flipped specific problems) are:

- Improved guidelines
- Develop "S" in ESG

Engaged research:

- Partner events with interviewees.
- Podcast episodes.
- Policy briefs.

ESR13 Androniki Pappa:

The problem: Urban commons practices at the neighbourhood scale often in thrall to political agendas:

Urban commons initiatives are almost entirely dependent upon the capabilities and resources of the involved groups and easily vulnerable to regeneration plans and political agendas. Yet, their contribution to the social sustainability of the neighbourhood can provide pathways for mutual benefits between the urbanites and the local authorities.

Limited research on the spatial dimension of urban commons spaces:

Space is widely studied as a key factor for the development of urban commons mainly from sociological, political, geographical perspectives. There is room for architectural /urban design analysis on the role of the physical space in the emergence of sharing and commoning practices and the contribution of the design agents in this regard.

Relevant stakeholders:

- Municipalities and policymakers (e.g. Lisbon Municipality, Barcelona Municipality): inform regulatory frameworks/guidelines that recognise urban commons as drivers of social sustainability and as distinct spatial typology and process.
- Practice | Design professionals: systematise tools and methods to support the collaborative design and management of urban commons at the neighbourhood scale.
- Community groups/organisations working in the social sector: promote networks of urban commons by toolboxes and awareness actions.
- General Public (indirect): placemaking and citizenship

What will change look like?

Neighbourhood commons spaces as an urban planning typology:

Establish, protect and promote urban commons in the neighbourhood as **typological entries** in the urban design and planning, as well as in the sustainability discourse.

Engaged research:
- Working with community organisations/community groups/practitioners.
- Participate in local government consolations/presentations.
- Secondment on municipal bodies.
- Get involved in the production of knowledge on urban commons in architectural education discourses.
- Provide training on placemaking.
- Support the creation of neighbourhood commons spaces.
- Provide support and consultation to existing neighbourhood commons spaces.

ESR14 Carolina Martín:

The problem: Integrating mass customisation strategies in the industrialised construction sector developing multi-family housing.

While the manufacturing industry is increasingly heading towards customer-centric approaches, tailoring products and services to the user's needs, the housebuilding sector still operates in a very traditional way. Mass customisation practices should be integrated in the delivery of affordable and sustainable multi-family housing in order to provide housing that responds to the user's needs and is resilient in time. There is a lack of research on how to develop a product platform that aligns the variety of products to the variety of needs, partly due to the misaligned and short-sighted objectives of the different stakeholders in the construction industry.

Outcomes: The research aims at identifying the design strategies, industrialised construction methods and best practices to develop a flexible yet defined product platform to allow mass customisation of the internal layouts in multi-family housing. Additionally, it facilitates the understanding of how the different degrees of customisation are linked to the manufacturing strategies of a construction company.

The development of a framework addressing the design flexibility, manufacturing efficiency and construction resiliency of a multi-family housing project, along with guidelines and recommendations to introduce these strategies at each building layer, would as well be some of the outcomes of this research.

What would success look like? Increased understanding in how to implement a product platform approach in a construction company, based on the degree of customisation intended and the manufacturing capacity within the company.

Greater awareness of practitioners to achieve high degrees of flexibility while using a set of industrialised components, achieving a diverse range of housing patterns without compromising the efficiency in construction.

Impact already undertaken: Seminars and presentations to architects, academics, product platform developers and construction companies have been realised to disseminate preliminary findings and refine the framework to capture the actual barriers in the industry.

Lectures and tutoring activities at academic institutions as ISCTE (Lisbon) and CEU Cardenal Herrera (Valencia) to raise interest and provide tools to better integrate flexibility, resiliency and industrialisation into the development of housing.

Next steps:

Potential partners:
- Architects
- Construction companies
- Product platform developers
- Housing providers, developers, cooperatives
- Academic institutions

The research could take several forms:
- Collaborative projects with **housing cooperatives** wanting to implement mass customisation strategies to improve the efficiency of participatory processes yet achieve a high degree of flexibility.
- Collaborative projects with **housing providers and developers** to implement mass customisation strategies to increase the market positioning, resiliency and the long-term value of their assets.
- Workshops for **construction companies** wanting to implement a product platform approach to improve their manufacturing strategy.
- Collaborative projects with **practitioners**, architects and designers wanting to systematise the variability, understanding the design, production and assembly of industrialised construction as an integrated process.

Costs or funding might be needed for:
- Organise workshops/seminars

ESR15 Leonardo Ricaurte:

The problem: The limitations on current conceptualisation and methodology to define and assess the social value created by housing design at the block scale, focusing on the long-term effects of the built environment on residents quality of life.

Outcomes: The production of a complementary approach to support social value assessment that can be used by social housing providers, architecture firms, and social enterprises working in the built environment sector to improve the design and management of existing and future housing estates.

What would success look like? Social housing providers incorporate research recommendations into their social value strategy and post-occupancy assessments. In this case, I have collaborated with Clarion and Clarion Futures.

Impact already undertaken: I have participated in several events gathering a diverse audience including housing actors and researchers showcasing research approach, preliminary findings and related issues including:

- International Social Housing Festival 2022 – Participated in the workshop organised by the RE-DWELL network.
- Eurhonet – the European Housing Network Social Integration Group session organised by Clarion and EFL.
- The Housing Diversity Network 2023 Conference - supporting Clarion and the Quality of Life Foundation workshop on community engagement.
- International Conference on Urban Affairs – presenting preliminary research findings.

Next steps: I am working with Elanor Warwick from Clarion to conduct a validation workshop at Clarion to present some of the findings of my research and explore the

potential to implement some of the recommendations across the housing group. No funding is needed for this activity.

Annex 2– Supervisor impact survey

In May 2024, all supervisors and partner organisations were sent a survey to generate ideas for the collective impact of the project. Responses were received from 9 supervisors and 0 partner organisations. Responses were anonymous, and are collected below, organised by question.

1. **Identify how RE-DWELL research contributes towards impact- what are the potential areas for impact in your discipline research / teaching context.**

   - At two levels:

     1. In terms of delivering sustainable housing by providing concepts, tools and methods to support design, development and provision of sustainable housing in general but more specifically for social housing.

     2. In terms of affordability of social housing by exploring approaches to affordable housing, lifecycle assessments, the importance for affordable housing to be also sustainable.

   - Transdisciplinary approach, concepts of: system, targeting and transformative knowledge; framework for affordable and sustainable housing, increasing problem-solving capacity

   - The transdisciplinary approach of the network created help us to extend the range for our research focus on LCA. The social Life Cycle Assessment is the next challenge to a proper assessment of Sustainability in Buildings. The network offer to us possibilities to work with other KPI's in the aim of asses the real performances for houses. In the teaching context, the RE-DWELL research help us with the background knowledge around the housing major issues and the new opportunities to build better homes in a better environment.

   - New insights into the energy transition, energy poverty, and the connection between housing sustainability and affordability.

   - Impact on housing associations, developers, financial institutions, policy makers

   - The RE-DWELL materials are useful resources for teaching on housing affordability and sustainability and holistic approaches to housing. In addition, I plan to develop further certain concepts from the RE-DWELL programme such as transdisciplinarity in housing and urban research. I proposed a workshop with this theme at the AESOP PhD workshop organized in Grenoble in July 2024.

   - In research, I will communicate the results in different contexts (courses, seminars and congress) in order to promote this process of learning and research. In teaching I will continue organizing exhibitions with the results.

   - Within the context of research and teaching in architecture, potential areas of impact are (1) design strategies for more sustainable and affordable residential buildings; (2) the future opportunity of using the project outputs as case studies and discussion elements with students; (3) further research about the integrated life cycle of materials and uses in buildings.

   - Until now, Alex and Tijn are able to tap into professional and academic networks by discussing and/or presenting their work at (self-)organised meetings, as well as within TU Delft on housing finance and retrofit (Alex) as well energy poverty (Tijn).

2. **Identify specific beneficiaries/external stakeholders/networks who may be interested in the RE-DWELL research.**

- Housing policymakers, housing providers, designers, developers, academics, general public

- PhD students, different research departments, housing departments of state administration, civil society organisations as advocates and housing services provider, MOBA Housing SCE (European Cooperative Society) in Central and South-Eastern Europe.

- Local public policy makers, in Spain social housing depends on regional and local administrations. Big stakeholders.

- Dutch housing associations. They are supposed to be frontrunners in the energy transition but they also have to keep rents affordable.

- Housing Europe, EFL

- The networks of AESOP (Association of European Schools of Planning) and the Young Academics of AESOP (PhD candidates in planning).

- All Spanish architecture schools could be interested in this project (there are 52). Cooperatives that are starting to organise themselves, associations that work with cooperatives (Creaqció, Fent estudi...) and any transdisciplinary network (not only linked to Housing) could be interested and use the process to incorporate it in their own context.

- Designers (architects, engineers); public authorities related to housing (national and local bodies for housing policies, housing construction and housing management); developers and investors; construction companies; architecture schools.

- Governments, financiers of (social rental) housing, national and EU umbrella organisations of stakeholders

3. **Are there any regional, local or international areas of policy that the work of the RE-DWELL project.**

- Affordable housing that is also sustainable and healthy.

- It could influence partly making of future National Housing Strategic Plan.

- Regional and local administrations in Spain, for policies around design, indoor performance and quality in housing, and also for planning social housing.

- I think housing policymakers at all levels of governance could benefit from the RE-DWELL results.

- Yes, policies for affordable housing and the energy transition.

- It is too early to answer, since this depends on the finalized PhD dissertations of the ESRs.

- [Ministerio de Vivienda y Agenda Urbana España.](#)

- [Observatorio del Hábitat y Segregación Urbana de la Comunidad Valenciana](#).

- [L'Observatori Metropolità de l'Habitatge de Barcelona (O-HB).](#)

- Yes, RE-DWELL could inform housing policies at several levels (local, regional, national and international) with adapted approaches for each case. At the

international level, funding policies may include criteria and requirements associated with the project findings; At the national, regional and local levels, funding policies, as well as public developments, may include rules, specifications and maintenance practices that incorporate the project findings.

- Certainly, depending on who's responsible for the provision of housing and retrofit in a country, as well as the EU (Green Deal stakeholders for example).

4. **Are there any changes to your teaching or research practice in response to RE-DWELL project activities.**

- Yes. Lot of questions in relation to defining and understanding affordable housing. Likewise, issues related to implementation of sustainable design in social housing projects both new and retrofit.

- Already, it has been implemented in teaching on different level, from PhD to master. We used it also for training, related to sustainability of housing programs for vulnerable social groups. It will be important point for our future innovative housing research.

- A more International and transdisciplinary approach and different methodologies for my work as PhD supervisor.

- More awareness of, and insight into, the holistic nature of the housing affordability and sustainability challenges.

- No

- RE-DWELL resources will be very useful for my teaching in the following years, especially for a course on housing policies in Europe at Master level. I also hope to continue having common research activities with network members after the end of the project.

- There have been many changes. Principal: I have improved my capacity to listen to others and understand other visions; I have increased my empathy. In research, doctoral students' work focuses on introducing sociological aspects. In teaching, other analytical factors have been introduced: the sociological and economic aspects are being addressed more transdisciplinary. We have already included sociologists among the invited guests, and next year, we will invite someone from the political or economic field.

- n.a. (I am temporarily not working at the university for the past two years).

- We can offer master thesis supervision in the topics, as well as some input to some courses (building economics, for example).

Annex 3– Partner organisation survey

In May 2024 all partner organisations were sent a survey but none responded. In January 2025 the survey was sent again and received 9 responses, collected below, organised by question. The responses came from Casais, Ceraneo, Clarion Housing, European Federation for Living, Housing Europe, Institut Català del Sòl, Lisbon City Council, Sostre Cívic and Városkutatás Kft.

1. **How has the RE-DWELL project or activities impacted on your organisation?**

   - The RE-DWELL project has strengthened our organisation by fostering knowledge exchange and collaboration with academia and professionals. It has enriched our understanding of housing models across Europe and provided insights to enhance our social and community-driven approach to cooperative housing.

   - On the scope of Incasòl's activity RE-DWELL's activity has had limited impact. It has helped to reflect on financial models of social housing development on rental market, and to provide an external view to our procedures of financial project evaluation. Being the cooperation with developers/managers of rental social housing the new approach.

   - Secondments enriched the research practice of CERANEO and helped in better networking among the most relevant stakeholders of housing policy in Croatia. At the time of ESR's secondment, CERANEO built an additional reputation among homeless service providers and other sectors and provided a convincing empirical record regarding its social, institutional and financial sustainability. CERANEO was thus able to contribute to the development of this neglected policy area, important for academic research and potentially for the preparation of better policy documents targeting housing affordability and sustainability for socially excluded groups. Also, awareness to the importance of comparative research, learning from the experience of other countries and especially analysing housing affordability of vulnerable social groups on the housing market.

   - One of our main focus points is energy saving in relation to total costs of operation. Regarding this point we included Energy Poverty as a major issue for our 70 Member Organisations.

   - The MRI has decades of experience in housing policy research, but often short-term research does not provide the opportunity for a systematic approach to a problem, especially a multidisciplinary approach. The significance of RE-DWELL for MRI was that it provided a multifaceted framework for analysing the housing regime (and the housing crisis).

   - As an industry partner, Clarion has benefited from the two secondments we hosted and engagements with a further handful of the ESRs directly. Their presence in the business has always been stimulating several thought-provoking workshops with staff. Hosting the RE-DWELL consortium for a day highly informative for a large number of Clarion staff . Clarion's development arm Latimer cited supporting the work of our two ESR's in our recent submissions for the Homes England Next Generation initiative https://nextgeneration-initiative.co.uk/ Latimer received a Sliver standard award in 2022/23 and gold standard award in 2024 2nd in the benchmarking rankings.

- Lisbon Municipality hosted two secondments: ESR3 Lucia Chaloin and ESR 13 Androniki Pappa. The opportunity of having these young, and very motivated, researchers working closely to the municipality teams was an invaluable contribution to introduce and discuss innovative ways of thinking and dealing with the challenges we face in our territory in what concerns the governance of housing and neighborhoods.
- Very positive impact, especially in terms of gaining valuable knowledge on topics covered by the seconded ESRs.

2. **Identify specific beneficiaries/external stakeholders/partners who may be interested in the RE-DWELL research.**

   - Beneficiaries and stakeholders include cooperative housing organisations, municipalities, social economy networks, academics, housing rights groups, and funders supporting community-based housing models.
   - Beneficiaries would be the public sector in general: Department of Housing of Catalan Government, Local authorities willing to develop rental social projects in cooperation with private developers. And finally, those developers that will profit from a new take on cooperation in social housing development for rental in Catalonia.
   - Representatives of the Croatian network for the homeless, representatives of the academic community, competent institutions such as the Institute for Social Work, ministries, local and regional units
   - Casais
   - Our 70 member organisations: housing associations, universities/research institutions and enterprises working for the housing sector.
   - Housing policy has become a politically important issue over the last decade and a half, with most experts (including MRI housing policy experts) calling for a paradigm shift, as supported by a number of inputs from the RE-DWELL research. These findings are especially useful for organisations advocating for a new housing policy. And this trend is clearly visible not only in Hungary, but also in other countries like it.
   - External networks such as NHF's (National Housing Federation) research forum and RUSH (Research Users in Social Housing). MHCLG, CIH, G15 group of Housing Associations
   - The RE-DWELL research is especially useful for local associations working on the thresholds between social development and access to housing.
   - ENHR, and international organisations active in the housing sphere such as UNECE, UN Habitat, OECD.

3. **What are the outcomes of the benefit of this project on your business or organisation activities?**

   - The project has enhanced our expertise in housing models, strengthened partnerships, and provided valuable insights to improve our cooperative housing practices and advocacy efforts.
   - In Catalonia there is an effort to enlarge the number of social housing developers devoted to rental market. This activity has long been overshadowed by ownership market and currently society has increased its demand towards rental. There has been little experience until now and from the perspective of

Incasòl (Public land developer) it is interesting to learn from a more academia view or an international perspective.

- CERANEO gained visibility and increased research capacity in terms of policy document analysis and advocacy capacity. Also, for other stakeholders it was a lesson of policy evaluation from the affordability point of view.
- Knowledge about industrialized construction
- We have a broader and more inclusive approach towards energy efficiency and carbon neutral.
- In my experience, Re-Dwell was a highly multifaceted and multi-stakeholder project, encompassing three major themes, prominent researchers, secondment organisations, and ESRs, all interconnected in a complex web. While it was initially challenging for an institution like MRI to grasp the entire process, the integration of these themes with diverse methods—ranging from theoretical frameworks to case studies and practical solutions—ultimately yielded exciting and valuable results.
- The workshop run summer 2024 at Clarion by our ESR to reflect on what our next steps for Social Value measurement could be, was facilitated in an exemplary way and is helping us shape our next steps and thinking on Social Value. Colleagues who rarely engage with research, or have time and opportunity to reflect on their day-to-day operational activities, have welcomed the ESR's engaged curiosity and valued their input into key tasks - such as helping shape our Fuel Poverty Strategy.
- The municipality may benefit from the project results in defining new technical solutions that may be integrated into public policies for a better future in the municipal neighbourhoods.
- In general it has helped understanding potential for cooperation between academics and practitioners with a model that can be replicated in the future.

4. **Are there any changes to your practice or business activities in response to RE-DWELL project activities?**

- the RE-DWELL project has encouraged us to integrate more research-driven approaches, strengthen collaborations with academia, and refine our advocacy for cooperative housing models.
- Currently, there is a new programme of subsidies and finance mechanisms being developed from the Catalan Government to promote development of social housing on rent by private developers and housing managers. The experience on which Re-Dwell ESR research got involved is giving insight to the new government plan.
- We follow academic research even more and have a greater base of grounded advocacy for vulnerable groups
- No
- We included Energy Poverty as an important issue.
- MRI is a small, research-based organisation, dealing with EU research. The RE-DWELL study has provided a good model for interdisciplinary approaches, but it is only gradually influencing day-to-day practice. The reason for this is that our research follows the needs of calls for proposals and of the Commission, and this does not always point in the direction of such a complex approach.
- Hard to quantify specific changes at this point

- Changes are anticipated in a mid-term reference period within the local team's approach to the challenges they face. The effective implementation, through well-structured public policies depends on the political executive buy-in at each political stage of the mandates.
- Not really, but we have developed a more structured way to cooperate with researchers willing to be seconded at Housing Europe ad identify mutual expectations and potential.

5. **What are possible dissemination activities or outputs for the research of the RE-DWELL project in your networks?**

- Dissemination activities include sharing RE-DWELL research through our social media, newsletters, and events, hosting webinars or workshops, and incorporating findings into advocacy materials and public presentations on cooperative housing.
- The dissemination would be sharing final reports and online RE-DWELL resources internally within regional government (Department of Housing, Catalan Housing Agency and Incasòl itself).
- CERANEO disseminates the results of this project at all its regular events (conferences, round tables, panel discussions, appearances in the media, regular announcements on the website, etc.).
- Industrialization roadmap
- We include it in our activities like: Conferences, webinars, project group meetings, digital and printed material.
- Within the RE-DWELL research, MRI's focus was on comparative research on housing systems, and it is expected that this will lead to new research results. The PhD work of Anna Martin, a researcher who was linked to MRI, also includes new insights on housing regimes. We plan to publish the results of a Croatia-Hungary comparative study., but it is difficult to find the time to do so.
- Presenting selected findings / RE-DWELL resources at RUSH meeting 8th April in Newcastle
- The team for local development may organize workshops and sessions with targeted local associations to share, discuss and promote the project results, and support the implementation of innovative solutions.
- Involving project leaders and researchers during relevant events (online and in person), possibility to use Housing Europe blog as a platform for op eds and similar.

6. **Potential for informing policy or white papers – what are the possibilities and how can this be further developed and by who and when?**

- RE-DWELL's research can inform policy by contributing to white papers on cooperative housing, sustainable urban development, and social inclusion. This could be developed by housing cooperatives, academic institutions, and policy networks, in collaboration with public administrations, over the next 1-2 years.
- As previously answered, indirectly, ESR research was used on the first partnership projects. The learnt lessons from that experience are being applied to the new plan on social housing for rental plan.
- As we stated in previous answers, we invite representatives of local and national authorities, institutions, civil society organisations, academic communities,

media etc. to our regular activities. In this way, we encourage dialogue and policy change.

- Yes
- We already distributed a White Paper.
- In our field of research, closer links with housing organisations in Europe would be the best way to involve decision-makers. The cooperation of these organisations (such as Housing Europe, Feantsa, EIB, Council of Europe Bank) is not always perfect.
- Not sure - Currently much UK policy upheaval around NPPF/ Heat Networks/ energy efficiency EPC s/ Future Homes Standard and retrofit - might be space to help shape theses?
- Policy may be informed by the municipal director for housing and local development, suggesting structured and integrated new measures considering the project findings.
- Potential link to the ongoing work by the European Commission to launch an Affordable Housing Plan at EU level (not published yet, ongoing work at the level of EU institutions)