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RE-DWELL

Deliverable 5.15 Compendium of scientific publications (year 3)

Version 1

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Executive summary

This is a report of the publications made by early-stage researchers in the third and last year of the RE-DWELL project, between October 2023 and September 2024.

A total of 24 scientific contributions, including conference abstracts, presentations and papers, and journal articles, have been submitted, accepted and/or published during this period. This document contains the list of contributions classified by authors and keywords. The abstracts are included in the annex and published on the project website.

Building from the year 2 report, the introduction includes updated reflections on the interrelationships between the lines of research emerging from the publications. In the conclusion are some suggestions for further research beyond the official life of the programme.

1. Introduction

This is the final in a series of three compendiums of scientific publications produced by early-stage researchers (ESRs) in the course of their PhD research in the RE-DWELL network. In the third year of activity, 24 contributions have been made. This includes 13 conference activities (presentation, abstract, paper, poster), 9 journal articles, 1 white paper, and 1 working paper (see Table 1 and Annex 1). Of particular note is the increase in published journal articles compared to the previous year (5), reflecting the more mature stage of the ESR research and indicates the growing impact of the project as it nears its conclusion.

The scope of the contributions is captured by the diversity of topics in Table 2, which highlights both the breadth of research and the key overarching concerns. Key terms include “participation” and related topics (9 outputs), “sustainability” and related topics (8 outputs), “social housing” (6 outputs), and “affordability”/ “affordable housing” (5 outputs). This list is similar to previous years, though “transdisciplinarity” fails to appear as a key term in year three. This perhaps reflects the increasing specificity of the ESRs’ individual work. Other key terms included “capability approach” (3 outputs), “energy poverty” (4 outputs), “renovation” (3 outputs), and “retrofit” (3 outputs).

Once again, geographical range across Europe was another notable feature of the outputs. The research encompassed: Austria, Croatia, Cyprus, France, Germany, the Netherlands, Portugal, Spain, Sweden, and the UK. Some of these studies focus in-depth on one particular context, such as Zoe Tzika’s work on Catalonia and Barcelona and Marko Horvat’s work on Croatia. Others, such as the work of Alex Fernández and Tijn Croon, directly compared multiple countries to explore how specific issues like energy poverty and social housing financing operate in different contexts. Andreas Panagidis and Effrosyni Roussou produced a collaborative conference paper on the shortfalls of neoliberal planning policies and the infrastructure gap in the context of Southern Europe, carrying on another key regional context from the outputs of previous years.

Building from Panagidis and Roussou’s interest in planning policies, other ESRs are conducting research on how policy shapes the sustainability of housing. This is especially apparent in the work of Marko Horvat, who tackles housing from the perspective of homelessness and housing affordability, with interests in how different models of institutional structure and policy initiatives in these areas can increase social sustainability. Financial policy is also an important concern. Across multiple outputs, Fernández explores the role of financing, pricing, and finance policy in social housing, especially in relation to energy consumption and sustainability.

Design factors are another important way of dissecting the sustainability of housing, apparent in ESR research into energy usage, construction practices and retrofit. Anette Davis, for example, explores the topic of social housing through design for disassembly, life cycle assessment methodologies, and circular economies. Croon’s work explores the importance of retrofit and design factors in improving the energy poverty of social housing tenants, related to Saskia Furman’s research, which centres on retrofit and how to make it more sustainable.

Furman also looks at retrofit from the perspective of resident engagement. Participation and community/citizen engagement was also explored in Roussou’s work on urban commons in Nicosia, and in Pappa’s research into the urban commons phenomenon as a tool for urban regeneration and community participation in Lisbon.

Cutting across many of these categories is an interest in new frameworks which integrate different perspectives and have a strong social angle, especially in relation to the topic of social housing. For example, Mahmoud Alsaeed's work into developing the foundations of a new framework for social housing builds around three pillars of sustainability, processes and perceptions, and the roles of public authorities. Tzika's work on cooperative housing in Barcelona includes the application of a Capability Approach, something theorised more broadly in the journal article of Leonardo Ricaurte, which proposes the Capability Approach as a way to understand social value in housing design. Furman also looks at social housing through the development of a more sustainable framework for social housing retrofit.

Thus, while transdisciplinarity was not as explicit an area of exploration in the year 3 outputs, it can be seen as inherent to almost all the research undertaken. Taken collectively, we can begin to understand the sustainability of affordable housing in new and exciting ways that cuts across disciplinary boundaries, drawing from perspectives on social value, finance, policy, design, energy, and participatory practices.

Table 1. ESRs publications

ESR	References	Contribution type
ESR 1 Anette Davis	Davis, A. (2024). <i>Circular Housing: Insights from Solar Decathlon Europe 2022</i> . Presented at the European Network for Housing Research (ENHR) Conference 2024, Delft, the Netherlands.	Conference presentation
	Davis, A. (2022). <i>Design for Disassembly in housing: the need to adapt LCA to Shearing Layers</i> . In Proceedings of 3rd Valencia International Biennial of Research in Architecture 2022. Changing priorities (pp. 636-647). Valencia: Editorial Universitat Politècnica de València.	Conference paper
ESR 2 Saskia Furman	Furman, S., Martínez, A., & Martín, X. (2024). <i>Social Housing Retrofit: Case studies in resident engagement</i> . Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain.	Conference abstract
	Furman, S. (2022). <i>Upgrading social housing to meet the socio - economic needs of today’s dwellers, and the environmental needs of the planet: A framework beyond retrofit</i> . In New Housing Researchers Colloquium (NHRC) at the European Network for Housing Research (ENHR) Conference 2022. Barcelona, Spain.	Conference presentation
ESR 5 Mahmoud Alsaeed	Alsaeed, M., Hadjri, H., & Nawratek, K. (2024). <i>Exploring the building blocks of sustainable social housing frameworks</i> . Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain.	Conference abstract
ESR 6 Marko Horvat	Horvat, M., & Bežovan, G. (2024). <i>Sustainability and Capacity Analysis of Croatian Homeless Service Providers</i> . European Journal of Homelessness, 18(2). 67-94.	Journal article
	Horvat, M. (2024). <i>Improving housing affordability through housing allowances: a pilot project in Croatia</i> . Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain.	Conference abstract
ESR 8 Andreas Panagidis	Panagidis, A., & Roussou, E. (2024) <i>Clientelism and infrastructural gaps in Southern Europe: The implications on housing and urban governance</i> . Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain.	Conference abstract

ESR 9 Effrosyni Roussou	Roussou, E., Ricchiardi, A. (2024). <i>Enclaves of commoning across the divide: self-organised spaces against divisions</i> . In AESOP Symposium: “Constructing Peace through Public Space: What publics? Whose commons?”. Nicosia, Cyprus.	Conference abstract
	Panagidis, A., & Roussou, E. (2024) <i>Clientelism and infrastructural gaps in Southern Europe: The implications on housing and urban governance</i> . Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain.	Conference abstract
ESR 10 Zoe Tzika	Tzika, Z. (2024). <i>Housing as Community Infrastructure: Case Study Analysis of Catalonia’s Grant-of-Use Cooperative Housing</i> . Presented at the European Network for Housing Research (ENHR) Conference 2024, Delft, the Netherlands.	Conference presentation
	Tzika, Z., & Sentieri, C. (accepted, 2024). <i>Housing as Community Infrastructure: Analysis of Senior Cooperative Housing Using the Capability Approach</i> . Journal of Housing and the Built Environment.	Journal article
	Tzika, Z., Sentieri, C. & Martinez, A. (2024) <i>Key topics and challenges for creating community-led, inclusive and sustainable housing: Catalonia’s grant-of-use cooperative housing in Catalonia</i> . Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain.	Conference abstract
	Tzika, Z., & Sentieri, C. (2023). <i>Towards collective forms of dwelling: Analysis of the characteristics of the emerging grant-of-use housing cooperatives in Catalonia</i> . In 2nd Participatory Design Conference. Transforming the City: Public Space & Environment, Inequalities & Democracy. Athens, Greece.	Conference poster
ESR 11 Tijn Croon	Croon, T. M., Hoekstra, J. S. C. M., & Dubois, U. (2024). <i>Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands</i> . Energy Policy, 192, 114247.	Journal article
	Galvin, R., Sunikka-Blank, M., & Croon, T. M. (in print, 2024). <i>Juggling the Basics: How Much Does an Income Increase Affect Energy Spending of Low-Income Households in England</i> . Energy Research & Social Science.	Journal article
	Croon, T. M., Maghsoudi Nia, E., He, S., Qian, Q., Elsinga, M., Hoekstra, J., van Ooij, C., & van der Wal, A. (accepted,	Journal article

	2024). <i>Energy coaching and 'fix team' retrofitting to mitigate energy poverty: An ex-post analysis of treatment and interaction effects</i> . Energy Research & Social Science.	
	Croon, T., Hoekstra, J., & Dubois, U. (2023). <i>Addressing Energy Poverty in Social Housing Estates</i> . European Federation for Living.	White paper
ESR 12 Alex Fernández	Fernández, A. (2024). <i>Investigating the impact of housing price increases on consumption: Heterogeneity by age, tenure and housing quality</i> . Journal of European Real Estate Research (2024).	Journal article
	Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>When Land is Not Enough; Drawing in Private Capital to Increase Social Rental Housing in Spain</i> . [Working paper]	Working paper
	Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>Subsidies or green taxes? Evaluating the distributional effects of housing renovation policies among Dutch households</i> . Journal of Housing and the Built Environment, 2024, 1-28.	Journal article
	Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Investigating the role of ESG bonds and loans in financing housing renovation among social housing providers: a comparative approach to six European countries</i> . In Diaconu, A. (Ed.) Proceedings of the RE-DWELL Grenoble Conference (pp. 84-88). Pacte Social Sciences Research Centre, University Grenoble Alpes, Grenoble, France.	Conference article
	Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Three contradictions between ESG finance and social housing decarbonisation: a comparison of five European countries</i> . Housing Studies, 2023, 1-27.	Journal article
ESR 13 Androniki Pappa	Pappa, A., & Paio, A. (2023). <i>The role of commons-oriented policies in the transformation of urban governance: The case of the participatory budget BIP/ZIP in Lisbon</i> . In 2nd Conference on Participatory Design. Transforming the City: Public Space & Environment, Inequalities & Democracy. Athens, Greece	Conference poster
ESR 15 Leonardo Ricaurte	Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach</i> . Buildings and Cities, 4(1), 867–882.	Journal article

Table 2. Keywords and publications

Added value	Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i>
Affordability	Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>When Land is Not Enough; Drawing in Private Capital to Increase Social Rental Housing in Spain.</i>
Affordable housing	<p>Horvat, M. (2024). <i>Improving housing affordability through housing allowances: a pilot project in Croatia.</i></p> <p>Tzika, Z. (2024). <i>Housing as Community Infrastructure: Case Study Analysis of Catalonia's Grant-of-Use Cooperative Housing.</i></p> <p>Tzika, Z., & Sentieri, C. (2024). <i>Housing as Community Infrastructure: Analysis of Senior Cooperative Housing Using the Capability Approach.</i></p> <p>Tzika, Z., & Sentieri, C. (2023). <i>Towards collective forms of dwelling: Analysis of the characteristics of the emerging grant-of-use housing cooperatives in Catalonia.</i></p> <p>Furman, S. (2022). <i>Upgrading social housing to meet the socio-economic needs of today's dwellers, and the environmental needs of the planet: A framework beyond retrofit.</i></p>
Age groups	Fernández, A. (2024). <i>Investigating the impact of housing price increases on consumption: Heterogeneity by age, tenure and housing quality.</i>
Built environment	Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i>
Capability approach	<p>Tzika, Z. (2024). <i>Housing as Community Infrastructure: Case Study Analysis of Catalonia's Grant-of-Use Cooperative Housing.</i></p> <p>Tzika, Z., Sentieri, C. & Martínez, A. (2024) <i>Key topics and challenges for creating community-led, inclusive and sustainable housing: Catalonia's grant-of-use cooperative housing in Catalonia.</i></p> <p>Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i></p>
Care	Tzika, Z., & Sentieri, C. (2024). <i>Housing as Community Infrastructure: Analysis of Senior Cooperative Housing Using the Capability Approach.</i>
Case studies	Furman, S., Martínez, A., & Martín, X. (2024). <i>Social Housing Retrofit: Case studies in resident engagement.</i>
Circular economy	Davis, A. (2022). <i>Design for Disassembly in housing: the need to adapt LCA to Shearing Layers.</i>

Circular housing	Davis, A. (2024). <i>Circular Housing: Insights from Solar Decathlon Europe 2022</i> .
Civil organisations	Horvat, M., & Bežovan, G. (2024). <i>Sustainability and Capacity Analysis of Croatian Homeless Service Providers</i> .
Co-housing	Tzika, Z., & Sentieri, C. (2024). <i>Housing as Community Infrastructure: Analysis of Senior Cooperative Housing Using the Capability Approach</i> .
Collaborative	Tzika, Z. (2024). <i>Housing as Community Infrastructure: Case Study Analysis of Catalonia's Grant-of-Use Cooperative Housing</i> .
Collaborative housing	Tzika, Z., & Sentieri, C. (2024). <i>Housing as Community Infrastructure: Analysis of Senior Cooperative Housing Using the Capability Approach</i> .
Collective housing	Tzika, Z., Sentieri, C. & Martínez, A. (2024) <i>Key topics and challenges for creating community-led, inclusive and sustainable housing: Catalonia's grant-of-use cooperative housing in Catalonia</i> . Tzika, Z., & Sentieri, C. (2023). <i>Towards collective forms of dwelling: Analysis of the characteristics of the emerging grant-of-use housing cooperatives in Catalonia</i> .
Commoning	Roussou, E., Ricchiardi, A. (2024). <i>Enclaves of commoning across the divide: self-organised spaces against divisions</i> .
Commons-oriented strategy	Pappa, A., & Paio, A. (2023). <i>The role of commons-oriented policies in the transformation of urban governance: The case of the participatory budget BIP/ZIP in Lisbon</i> .
Communal living	Tzika, Z., & Sentieri, C. (2023). <i>Towards collective forms of dwelling: Analysis of the characteristics of the emerging grant-of-use housing cooperatives in Catalonia</i> .
Community	Tzika, Z., & Sentieri, C. (2023). <i>Towards collective forms of dwelling: Analysis of the characteristics of the emerging grant-of-use housing cooperatives in Catalonia</i> .
Community-led	Tzika, Z. (2024). <i>Housing as Community Infrastructure: Case Study Analysis of Catalonia's Grant-of-Use Cooperative Housing</i> .
Comparative policy	Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Three contradictions between ESG finance and social housing decarbonisation: a comparison of five European countries</i> .
Consumption	Fernández, A. (2024). <i>Investigating the impact of housing price increases on consumption: Heterogeneity by age, tenure and housing quality</i> .

Design for disassembly	<p>Davis, A. (2024). <i>Circular Housing: Insights from Solar Decathlon Europe 2022</i>.</p> <p>Davis, A. (2022). <i>Design for Disassembly in housing: the need to adapt LCA to Shearing Layers</i>.</p>
Distributional impact	Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>Subsidies or green taxes? Evaluating the distributional effects of housing renovation policies among Dutch households</i> .
Ecosocial policy	Galvin, R., Sunikka-Blank, M., & Croon, T. M. (in print, 2024). <i>Juggling the Basics: How Much Does an Income Increase Affect Energy Spending of Low-Income Households in England</i> .
Energy coaching	Croon, T. M., et al. (accepted, 2024). <i>Energy coaching and 'fix team' retrofitting to mitigate energy poverty: An ex-post analysis of treatment and interaction effects</i> .
Energy efficiency	Fernández, A. (2024). <i>Investigating the impact of housing price increases on consumption: Heterogeneity by age, tenure and housing quality</i> .
Energy expenditure	Galvin, R., Sunikka-Blank, M., & Croon, T. M. (in print, 2024). <i>Juggling the Basics: How Much Does an Income Increase Affect Energy Spending of Low-Income Households in England</i> .
Energy poverty	<p>Croon, T. M., Hoekstra, J. S. C. M., & Dubois, U. (2024). <i>Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands</i>.</p> <p>Galvin, R., Sunikka-Blank, M., & Croon, T. M. (2024). <i>Juggling the Basics: How Much Does an Income Increase Affect Energy Spending of Low-Income Households in England</i>.</p> <p>Croon, T. M., et al. (2024). <i>Energy coaching and 'fix team' retrofitting to mitigate energy poverty: An ex-post analysis of treatment and interaction effects</i>.</p>
Energy transition	Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Investigating the role of ESG bonds and loans in financing housing renovation among social housing providers: a comparative approach to six European countries</i> .
English Housing Survey	Galvin, R., Sunikka-Blank, M., & Croon, T. M. (in print, 2024). <i>Juggling the Basics: How Much Does an Income Increase Affect Energy Spending of Low-Income Households in England</i> .
ESG (Environmental, Social and Governance)	<p>Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Investigating the role of ESG bonds and loans in financing housing renovation among social housing providers: a comparative approach to six European countries</i>.</p> <p>Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Three contradictions between ESG finance and social housing decarbonisation: a comparison of five European countries</i>.</p>

European policy	Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Three contradictions between ESG finance and social housing decarbonisation: a comparison of five European countries.</i>
Finance	Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>When Land is Not Enough; Drawing in Private Capital to Increase Social Rental Housing in Spain.</i>
Focus groups	Croon, T. M., Hoekstra, J. S. C. M., & Dubois, U. (2024). <i>Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands.</i>
Framework	Alsaeed, M., Hadjri, H., & Nawratek, K. (2024). <i>Exploring the building blocks of sustainable social housing frameworks.</i> Davis, A. (2024). <i>Circular Housing: Insights from Solar Decathlon Europe 2022.</i>
Grant-of-use	Tzika, Z., & Sentieri, C. (2024). <i>Housing as Community Infrastructure: Analysis of Senior Cooperative Housing Using the Capability Approach.</i>
Green finance	Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Investigating the role of ESG bonds and loans in financing housing renovation among social housing providers: a comparative approach to six European countries.</i>
Green taxes	Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>Subsidies or green taxes? Evaluating the distributional effects of housing renovation policies among Dutch households.</i>
Homeless	Horvat, M., & Bežovan, G. (2024). <i>Sustainability and Capacity Analysis of Croatian Homeless Service Providers.</i>
House prices	Fernández, A. (2024). <i>Investigating the impact of housing price increases on consumption: Heterogeneity by age, tenure and housing quality.</i>
Housing	Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i>
Housing allocation	Croon, T. M., Hoekstra, J. S. C. M., & Dubois, U. (2024). <i>Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands.</i>
Housing allowance	Horvat, M. (2024). <i>Improving housing affordability through housing allowances: a pilot project in Croatia.</i>
Housing design	Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i>
Housing policy	Horvat, M. (2024). <i>Improving housing affordability through housing allowances: a pilot project in Croatia.</i>

Housing value	Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>Subsidies or green taxes? Evaluating the distributional effects of housing renovation policies among Dutch households.</i>
Inclusion	Tzika, Z., Sentieri, C. & Martínez, A. (2024) <i>Key topics and challenges for creating community-led, inclusive and sustainable housing: Catalonia's grant-of-use cooperative housing in Catalonia</i>
Income elasticity	Galvin, R., Sunikka-Blank, M., & Croon, T. M. (in print, 2024). <i>Juggling the Basics: How Much Does an Income Increase Affect Energy Spending of Low-Income Households in England.</i>
Industrialised constructions	Davis, A. (2024). <i>Circular Housing: Insights from Solar Decathlon Europe 2022.</i>
Land	Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>When Land is Not Enough; Drawing in Private Capital to Increase Social Rental Housing in Spain.</i>
Life Cycle Assessment	Davis, A. (2022). <i>Design for Disassembly in housing: the need to adapt LCA to Shearing Layers.</i>
Low income	Galvin, R., Sunikka-Blank, M., & Croon, T. M. (in print, 2024). <i>Juggling the Basics: How Much Does an Income Increase Affect Energy Spending of Low-Income Households in England.</i>
MPC (Marginal Propensity to Consume)	Fernández, A. (2024). <i>Investigating the impact of housing price increases on consumption: Heterogeneity by age, tenure and housing quality.</i>
Netherlands	Croon, T. M., et al. (accepted, 2024). <i>Energy coaching and 'fix team' retrofitting to mitigate energy poverty: An ex-post analysis of treatment and interaction effects.</i>
Nicosia	Roussou, E., Ricchiardi, A. (2024). <i>Enclaves of commoning across the divide: self-organised spaces against divisions.</i>
Participation	<p>Panagidis, A., & Roussou, E. (2024) <i>Clientelism and infrastructural gaps in Southern Europe: The implications on housing and urban governance</i></p> <p>Tzika, Z., & Sentieri, C. (2024). <i>Housing as Community Infrastructure: Analysis of Senior Cooperative Housing Using the Capability Approach.</i></p> <p>Tzika, Z., Sentieri, C. & Martínez, A. (2024) <i>Key topics and challenges for creating community-led, inclusive and sustainable housing: Catalonia's grant-of-use cooperative housing in Catalonia.</i></p> <p>Tzika, Z., & Sentieri, C. (2023). <i>Towards collective forms of dwelling: Analysis of the characteristics of the emerging grant-of-use housing cooperatives in Catalonia.</i></p>

Participatory budget	Pappa, A., & Paio, A. (2023). <i>The role of commons-oriented policies in the transformation of urban governance: The case of the participatory budget BIP/ZIP in Lisbon.</i>
Placemaking	Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i>
PPP (Public-Private Partnerships)	Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>When Land is Not Enough; Drawing in Private Capital to Increase Social Rental Housing in Spain.</i>
Qualitative research	Davis, A. (2024). <i>Circular Housing: Insights from Solar Decathlon Europe 2022.</i>
Quality of life	Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i>
Renovation	Croon, T. M., Hoekstra, J. S. C. M., & Dubois, U. (2024). <i>Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands.</i> Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>Subsidies or green taxes? Evaluating the distributional effects of housing renovation policies among Dutch households.</i> Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Three contradictions between ESG finance and social housing decarbonisation: a comparison of five European countries.</i>
Rent setting	Croon, T. M., Hoekstra, J. S. C. M., & Dubois, U. (2024). <i>Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands.</i>
Resident engagement	Furman, S., Martínez, A., & Martín, X. (2024). <i>Social Housing Retrofit: Case studies in resident engagement.</i>
Residential comfort	Croon, T. M., et al. (accepted, 2024). <i>Energy coaching and 'fix team' retrofitting to mitigate energy poverty: An ex-post analysis of treatment and interaction effects.</i>
Residents	Furman, S., Martínez, A., & Martín, X. (2024). <i>Social Housing Retrofit: Case studies in resident engagement.</i> Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i>
Retrofit	Croon, T. M., et al. (2024). <i>Energy coaching and 'fix team' retrofitting to mitigate energy poverty: An ex-post analysis of treatment and interaction effects.</i> Furman, S., Martínez, A., & Martín, X. (2024). <i>Social Housing Retrofit: Case studies in resident engagement.</i>

	Furman, S. (2022). <i>Upgrading social housing to meet the socio-economic needs of today's dwellers, and the environmental needs of the planet: A framework beyond retrofit.</i>
Self-organised	Roussou, E., Ricchiardi, A. (2024). <i>Enclaves of commoning across the divide: self-organised spaces against divisions.</i>
Service providers	Horvat, M., & Bežovan, G. (2024). <i>Sustainability and Capacity Analysis of Croatian Homeless Service Providers.</i>
Shearing layers	Davis, A. (2022). <i>Design for Disassembly in housing: the need to adapt LCA to Shearing Layers.</i>
Spatial mapping	Roussou, E., Ricchiardi, A. (2024). <i>Enclaves of commoning across the divide: self-organised spaces against divisions.</i>
Social housing	<p>Alsaeed, M., A., Hadjri, H., & Nawratek, K. (2024). <i>Exploring the building blocks of sustainable social housing frameworks.</i></p> <p>Croon, T. M., Hoekstra, J. S. C. M., & Dubois, U. (2024). <i>Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands.</i></p> <p>Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>When Land is Not Enough; Drawing in Private Capital to Increase Social Rental Housing in Spain.</i></p> <p>Furman, S., Martínez, A., & Martín, X. (2024). <i>Social Housing Retrofit: Case studies in resident engagement.</i></p> <p>Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Investigating the role of ESG bonds and loans in financing housing renovation among social housing providers: a comparative approach to six European countries.</i></p> <p>Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Three contradictions between ESG finance and social housing decarbonisation: a comparison of five European countries.</i></p>
Social impact	Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i>
Social service	Horvat, M., & Bežovan, G. (2024). <i>Sustainability and Capacity Analysis of Croatian Homeless Service Providers.</i>
Social value	Dissart, J. C., & Ricaurte, L. (2023). <i>Assessing social value in housing design: contributions of the capability approach.</i>
Sustainability	<p>Alsaeed, M., Hadjri, H., & Nawratek, K. (2024). <i>Exploring the building blocks of sustainable social housing frameworks.</i></p> <p>Horvat, M., & Bežovan, G. (2024). <i>Sustainability and Capacity Analysis of Croatian Homeless Service Providers.</i></p> <p>Tzika, Z. (2024). <i>Housing as Community Infrastructure: Case Study Analysis of Catalonia's Grant-of-Use Cooperative Housing.</i></p>

	<p>Fernández, A., Elsinga, M., & Haffner, M. (2023). <i>Investigating the role of ESG bonds and loans in financing housing renovation among social housing providers: a comparative approach to six European countries.</i></p> <p>Furman, S. (2022). <i>Upgrading social housing to meet the socio-economic needs of today's dwellers, and the environmental needs of the planet: A framework beyond retrofit.</i></p>
Sustainable behaviour	<p>Croon, T. M., et al. (accepted, 2024). <i>Energy coaching and 'fix team' retrofitting to mitigate energy poverty: An ex-post analysis of treatment and interaction effects.</i></p>
Sustainable housing	<p>Davis, A. (2022). <i>Design for Disassembly in housing: the need to adapt LCA to Shearing Layers.</i></p> <p>Tzika, Z., & Sentieri, C. (accepted, 2024). <i>Housing as Community Infrastructure: Analysis of Senior Cooperative Housing Using the Capability Approach.</i></p>
Urban governance	<p>Pappa, A., & Paio, A. (2023). <i>The role of commons-oriented policies in the transformation of urban governance: The case of the participatory budget BIP/ZIP in Lisbon.</i></p>
User costs	<p>Fernández, A., Haffner, M., & Elsinga, M. (2024). <i>Subsidies or green taxes? Evaluating the distributional effects of housing renovation policies among Dutch households.</i></p>

2. Dissemination

The abstracts included in the Annex of this report have been published on the project website section “Dissemination: Publications” (Figure 1). Each publication on the website contains the abstract and keywords, as well as associated concepts, case studies and blog posts. In addition, a relational graph shows the links between the publication and the related items (Figure 2).

The screenshot shows the 'Publications' page on the RE-DWELL website. The page is structured as follows:

- Navigation Bar:** RE-DWELL logo, About, Training, Knowledge base, Dissemination, Blog, News, Contact.
- Page Header:** Home > Publications
- Main Section:**
 - Publications** (Large heading)
 - Contributions to conferences and journals made by ESRs in the course of their research** (Subtitle)
- Publication Cards:**
 - Card 1:** Eghandour, A., & Hadji, K. (2023, July). *Design as an advocate for households' health and wellbeing* [Conference paper]. UIA World Congress 2023, Sustainable Futures Leave No One Behind. A.Eghandour (ESR4), K.Hadji (Supervisor). [Read more →](#)
 - Card 2:** Fernández, A., Haffner, M., & Elings, M. (2022, August-September). *Understanding the impact of energy efficiency on the housing costs to income ratio: an Instrumental Variable approach* [Conference paper]. European Network for Housing Research (ENHR) Conference 2022, Barcelona, Spain. M.Elings (Supervisor), A.Fernandez (ESR12), M.Haffner (Supervisor). [Read more →](#)
 - Card 3:** *housing future past or present (conference paper), architecture, Barcelona.* A.Davis (ESR1). [Read more →](#)
 - Card 4:** Tzika, Z., & Sentieri, C. (2022, February). *Understanding co-creation in the transdisciplinary research of sustainable and affordable housing* [Conference abstract]. Reinventing the city, Scientific conference AMS Institute, Amsterdam. C.Sentieri (Supervisor), Z.Tzika (ESR10). [Read more →](#)
- Right Sidebar:**
 - affordable housing** x
 - community engagement** x
 - CATEGORIES** (dropdown)
 - ESRS** (dropdown)
 - SUPERVISORS** (dropdown)
 - TAGS** (dropdown): active citizenship (1), affordability (2), affordable housing (3), BIM (2), circular economy (2), civil organisations (1), co-creation (2), commons (1), community-engaged design (1), comparative housing (2), community power (1).
- Footer:**
 - RE-DWELL logo
 - European Commission logo
 - Text: This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 995022.
 - Quick links: Network, Work packages, Training, Programme, Projects
 - Legal information: Privacy policy, Terms & conditions, Cookies policy
 - Follow us: Twitter, LinkedIn, Instagram, Facebook, Youtube
 - © Design and programming by ABC Engineering and Architecture La Salla

Figure 1. View of Publications in RE-DWELL website

The screenshot displays the RE-DWELL website interface for a specific publication. At the top, there is a navigation bar with links for 'Home', 'Publications', 'Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands', 'About', 'Training', 'Knowledge base', 'Classification', 'Blog', 'News', and 'Contact'. Below the navigation bar, there is a breadcrumb trail: 'Home > Publications > Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands'. The main content area features the title 'Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands' and a URL: 'https://www.sciencedirect.com/journal/energy-policy'. The author information section lists 'T. Ossen (ORCID)'. A sidebar on the left contains tags for 'Energy poverty', 'Social housing', 'Social groups', 'Renovation', 'Rent setting', and 'Housing allocation'. The main text area contains an abstract starting with 'Decisions made by social housing providers (SHPs) profoundly affect their tenants' energy affordability...'. Below the abstract, there are sections for 'Related case studies' (No articles), 'Related vocabulary' (Energy Poverty), 'Blogposts' (No articles), and 'Relational graph'. The relational graph is a network diagram with nodes representing different types of content: Case Study (CS), Concept (C), Publication (P), and Blogpost (BP). The central node is 'Energy Poverty: The in-depth study of energy p...'. Other nodes include 'Targeting energy efficiency: A Combined Energy Efficiency A...', 'Energy Poverty: The in-depth study of energy p...', 'The Social Climate Fund: More...', 'Collaboration transcending the...', 'Summer in the City...', 'Greater than the sum of its pa...', 'Lisbon as a trial-ground for...', 'Bringing research-led projects...', 'Crown, T. (2022, August, The ...', and 'Pre-1919 Middle Road Revolt...'. The graph shows connections between these nodes, indicating relationships between the publication and other related content.

Figure 2. View of a publication on the RE-DWELL website

3. Conclusions

This compendium has provided a detailed description of the contributions made by the ESRs in the final year of the project. The year 2 report noted the increase in published scientific output, and that continues in this final compendium, with 9 published works: 6 published journal articles and 3 in print, and a published white paper.

The key terms continue to indicate the increasing specificity and diversity of the research within the broad concerns of the project. As noted, broad concerns around sustainability, participation, affordability, and social value continue to be the drivers. Within sustainability, the topics are widely varied; more specific interests include “circular economy”, “design for disassembly”, “ecosocial policy”, “energy poverty”, “green finance”, “life cycle assessment”, and “sustainable behaviour”. The interest in participation also reflects many viewpoints: “co-housing”, “collaborative housing” and “collective housing”, “commoning”, “community-led”, “focus groups”, “participatory budget”, and “urban governance”.

The lack of collaborative efforts between the ESRs compared to year 2 (only 1 collaborative paper in year 3) is perhaps understandable given the ESRs will be completing their individual PhDs. However, this suggests that there is much room for future collaborations beyond the life of the programme. Shared interests such as developing new frameworks, transdisciplinary methodologies, and comparison of different contexts within Europe all offer potentially exciting ways forward for future collaborations that can carry on the life of the programme beyond the official end date.

Annex 1 – Abstracts

Alsaeed, M., Hadjri, H., & Nawratek, K. (2024). *Exploring the building blocks of sustainable social housing frameworks*. Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain

Abstract: The nexus between housing and sustainability is a multi-layered discourse often characterised by its ambiguity and complexity (Matthews, 2016). The realisation of large-scale, sustainable social housing projects is therefore associated with various challenges which require a comprehensive and systematic approach that transcends disciplinary boundaries. At the centre of this approach are frameworks that serve as fundamental constructs for planning and decision-making processes (Moghayedi et al., 2021). These frameworks embody a structured system of rules and ideologies that act as a supportive scaffold on which decisions are formulated. They also facilitate the formulation of standardised practices, principles, and detailed operational guidelines for sustainable housing provisions.

The development of a robust framework, regardless of its nature, requires the definition of a core set of pillars with careful attention to their structuring, organisation and interlinkage. Furthermore, these pillars are crucial in addressing real-world challenges that arise from both theoretical and practical perspectives in the delivery of sustainable social housing. To this end, the parameters that define social housing and sustainable housing frameworks are first examined through an exploratory literature review. Then, the challenges associated with the delivery of sustainable housing are identified through a synthesis of literature and semi-structured interviews with various actors such as housing associations, designers, and sustainability specialists.

A trilogy of pillars needed for the development of sustainable social housing frameworks is proposed; this is established around three thematic areas: Sustainability and its dimensions, social housing processes and perceptions, and the roles and responsibilities of public authorities. It is important to note that while this mapping represents a first step for housing researchers and industry professionals seeking to develop operational frameworks for sustainable social housing projects, it is not itself a framework. Instead, it lays the foundation for a common understanding of future sustainable social housing frameworks.

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Keywords: Social Housing, Sustainability, Frameworks

Croon, T. M., Hoekstra, J. S. C. M., & Dubois, U. (2024). *Energy poverty alleviation by social housing providers: A qualitative investigation of targeted interventions in France, England, and the Netherlands*. *Energy Policy*, 192, 114247.

Abstract: Decisions made by social housing providers (SHPs) profoundly affect their tenants' energy affordability, a group characterised by above-average energy poverty rates. Concentrated deprivation in this tenure has intensified due to policy-driven 'residualisation', compelling SHPs to serve almost exclusively low-income and marginalised households. Despite this, research exploring the potential of SHPs to tackle energy poverty through targeted interventions for their most vulnerable tenants remains sparse. The 2021–2022 energy price crisis offers a unique context to investigate this issue, given its substantial impact on household energy affordability. This study delves into insights of social housing professionals through focus groups conducted in France, England, and the Netherlands. It examines their views on the effectiveness of interventions and assesses their feasibility within the respective institutional contexts. We find that SHPs generally favour retrofit prioritisation and behavioural interventions as effective means of supporting at-risk tenants, whereas alterations in rent setting or housing allocation are considered potentially impactful but often undesirable or impracticable. We identify institutional barriers and lack of data as key obstacles to SHPs' adoption of more targeted

interventions. To empower SHPs in tackling energy poverty, housing policy reforms must acknowledge and address the significant impact of energy costs within total housing expenses.

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Keywords: Energy Poverty, Social Housing, Focus Groups, Renovation, Rent Setting, Housing Allocation

Croon, T. M., Maghsoudi Nia, E., He, S., Qian, Q., Elsinga, M., Hoekstra, J., van Ooij, C., & van der Wal, A. (accepted, 2024). *Energy coaching and 'fix team' retrofitting to mitigate energy poverty: An ex-post analysis of treatment and interaction effects.* *Energy Research & Social Science*.

Abstract: Rising energy prices across Europe have increased concerns over energy poverty. Despite significant scholarly focus on financial relief measures instituted by national governments, locally tailored crisis measures have remained overlooked. This study delves into the Dutch context, where part of the government's response to the energy crisis was decentralised, allowing municipalities considerable discretion in experimenting with energy poverty interventions. It compares two strategies: 'energy coaching' services – offering advice on sustainable energy practices – and shallow retrofitting by 'fix teams' – installing minor energy-saving measures in homes. The impact of these interventions on residential comfort, sustainable behaviour adoption, and (financial concerns regarding) energy bills is assessed through an extensive survey involving treatment and control groups coupled with detailed administrative data on households and dwellings. Results indicate that, on an aggregate level, local interventions significantly enhanced perceived comfort and reduced energy bills among the treatment groups. Comparing individual interventions, notably, more extensive ones such as fix teams and comprehensive energy coaching were significantly more impactful than those involving a single visit, highlighting the importance of continuous engagement. Additionally, we found that energy poverty status significantly amplified the effectiveness of these interventions, thereby stressing the importance of targeting interventions on vulnerable households.

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Keywords: Energy Poverty, Energy Coaching, Retrofitting, Residential Comfort, Sustainable Behaviour, Netherlands

Galvin, R., Sunikka-Blank, M., & Croon, T. M. (in print, 2024). *Juggling the Basics: How Much Does an Income Increase Affect Energy Spending of Low-Income Households in England.* *Energy Research & Social Science*.

Abstract: European governments have deployed targeted and untargeted financial support to protect vulnerable households from the impacts of the recent energy crisis. However, there is little knowledge of income elasticity of energy expenditure among households experiencing energy poverty. We therefore examine the link between energy expenditure and household income levels, considering a spectrum of factors including energy poverty status, energy efficiency of homes, and socio-demographics. We use England's official energy poverty definition, 'Low-income, low-energy-efficiency', and analyse the government's 'Fuel Poverty Dataset' from 2019. We find that, for all income groups, by far the greatest impact on energy expenditure is the dwelling's energy-efficiency rating, followed by floor area. An increase in income has negligible effects on energy expenditure for all income groups, but greatest for those in energy poverty, suggesting that even though most of their energy-oriented financial support is used for other pressing needs, this still offers some relief from energy poverty. We conclude that energy-efficiency improvements in homes would yield the most substantial and enduring financial benefits for these households, highlighting the need for targeted

retrofitting policies. Additionally, older homeowners in energy poverty may need help to move into smaller, energy-efficient homes that are less expensive to heat.

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T.M. Croon, J.S.C.M. Hoekstra, U. Dubois, Energy poverty alleviation by social housing providers: a qualitative investigation of targeted interventions in France, England, and the Netherlands, *Energy Policy* 192 (2024).

Keywords: Income Elasticity, Energy Expenditure, Energy Poverty, Low Income, Ecosocial Policy, English Housing Survey

Croon, T., Hoekstra, J., & Dubois, U. (2023). Addressing Energy Poverty in Social Housing Estates [White Paper]. European Federation for Living.

Executive Summary: This report addresses the pressing concern of energy poverty in social housing and offers strategic solutions to advance an inclusive energy transition. Energy poverty has become a prominent issue, disproportionately affecting vulnerable households with limited financial means and energy inefficient dwellings. The surge in energy prices and the ongoing transition towards low-carbon energy sources contribute to this challenge.

The report emphasises the significance of short-term measures to mitigate the impact of energy price surges on tenants. Empowering residents with energy coaches, distributing energy-saving boxes, deploying ‘fix teams’, establishing warm hubs, and offering financial leniency are practical steps to support vulnerable households during challenging periods.

Furthermore, long-term strategies are crucial to enhancing tenant resilience and preventing energy poverty from the outset. Social housing providers can prioritise renovation for homes occupied by households at risk of energy poverty and reform housing (re)allocation policies to allocate energy-efficient dwellings to vulnerable tenants. Targeted information campaigns can also influence energy consumption behavior and foster energy-saving practices among residents.

To support the energy efficiency of social housing stock, social housing providers can leverage funding opportunities offered by the European Investment Bank (EIB) and the upcoming Social Climate Fund (SCF). Initiatives like the EIB's Affordable Housing Initiative and ELENA program provide financial support for social housing renovation projects. The SCF, commencing in 2026, will inject approximately 86 billion euros to fund renovation projects for vulnerable Europeans and provide direct income support to households in need, with a focus on reducing energy poverty.

The core message of this whitepaper is that an inclusive energy transition in social housing requires a multifaceted approach that combines short-term measures and long-term strategies. Social housing providers play a vital role in addressing energy poverty, and by optimizing operations, reforming allocation policies, and launching targeted information campaigns, they can make a significant impact in promoting sustainable living conditions for vulnerable tenants. Leveraging funding opportunities from the EIB and the SCF, social housing providers can take proactive steps towards alleviating energy poverty and ensuring a brighter future for their residents.

Davis, A. (2024). Circular Housing: Insights from Solar Decathlon Europe 2022. Presented at the European Network for Housing Research (ENHR) Conference 2024, Delft, the Netherlands.

Abstract: This study investigates the circular economy transition in housing, providing lessons learnt and best practices demonstrated at the Solar Decathlon Europe competition 2022 in Wuppertal, Germany. The competition build challenge provided a unique opportunity to examine the practical application of circular principles in affordable, urban housing solutions, leveraging both design for disassembly and industrialised construction approaches. The interdisciplinary teams provided valuable knowledge in circular construction, having gained hands-on experience in collaboration with industry professionals. The insights provided by this study are based on interviews with fifteen competing teams' mid-way through the assembly phase. This was complemented by observation of team Azalea's disassembly process in Spain, prior to attending the competition in Germany. The results contribute towards the development of a circular housing framework and provides transferrable knowledge for industry practitioners and housing providers. This doctoral research is part of the Horizon 2020 project RE-DWELL.

Keywords: Circular Housing, Design for Disassembly, Industrialised Construction, Qualitative research, Framework

Davis, A. (2022). *Design for Disassembly in housing: the need to adapt LCA to Shearing Layers*. In *Proceedings of 3rd Valencia International Biennial of Research in Architecture 2022. Changing priorities* (pp. 636-647). Valencia: Editorial Universitat Politècnica de València.

Abstract: The current lack of sustainable and affordable housing is a global issue which has reached a crisis point. Traditional construction approaches used to solve sustainability issues in housing are often in tension with affordability, where the achieving one of these two aims is often to the detriment to the other. The application of Design for Disassembly (DfD) in combination with Industrialised Construction (IC) can simultaneously provide environmentally and economically sustainable solutions to these ongoing housing challenges. However, the application of DfD and the planning of varying lifespans for different building components raises issues with the conventional Whole Building Life Cycle Assessment (LCA) methodology, which is used to quantify environmental impacts of the construction.

This paper covers three theoretical objectives: (1) to provide an overview of DfD and IC and how these can be combined to provide resource efficient, affordable housing (2) examine how the Shearing Layers concept can extend the building lifespan and better ensure a sustainable End-of-Life, and (3) a preliminary outline proposal as to how the Whole Building LCA methodology, based on existing standards, can be adapted to align with the Shearing Layers. These objectives will be achieved through a literature review, covering the theoretical principles of DfD and the key ISO standards related to LCA. Based on the literature and applied theory, a preliminary aggregated LCA methodology is proposed that will be further developed and tested using case studies in future investigations by the author.

The result of the discussion reveals potential conflict between construction in practice and applying Shearing Layers and the adapted Whole Building LCA and the need for further investigation to establish the number of years assumed for each layer of the LCA. Whilst inventory data for materials and processes follow conventional practices, it is the proposed organisation of information into layers illustrates to designers the need to design housing for disassembly to remove and replace building components.

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Keywords: Sustainable housing, Design for Disassembly (DfD), Life Cycle Assessment (LCA), Circular Economy (CE), shearing layers

Dissart, J. C., & Ricaurte, L. (2023). *Assessing social value in housing design: contributions of the capability approach*. *Buildings and Cities*, 4(1), 867–882.

Abstract: A conceptualisation of social value in the built environment is provided from the perspective of the capability approach (CA). The CA is a theoretical framework that has been used to assess inequality and poverty, particularly in less-developed countries; its multidimensionality and flexibility make it a useful approach in advanced economies as well. The CA can be a theoretical underpinning to

assess the social value created in the built environment, particularly in its spatial dimension. Its use is explored to assess the design features of housing schemes and the wider environment as a fundamental conversion factor in creating capabilities and achieving valued functionings. In addition to theoretical considerations, a capability-based assessment of social value is presented for housing design.

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Keywords: Added Value, Built Environment, Capability Approach, Housing, Housing Design, Placemaking, Quality of Life, Residents, Social Impact, Social Value

Fernández, A. (2024). *Investigating the impact of housing price increases on consumption: Heterogeneity by age, tenure and housing quality*. *Journal of European Real Estate Research* (2024).

Abstract: Purpose – The purpose of this paper is to understand the distributional impact of house price increases on consumption in the context of the energy transition.

Design/methodology/approach – This study draws from two micro cross-sectional datasets, the English Housing Survey (EHS) and the Living Costs and Food Survey (LCFS) to study the Marginal Propensity to Consume (MPC) out of changes in house prices. By employing pseudo-panel regressions, the paper examines the impact of house price changes on consumption among diverse household types.

Findings – This paper finds varying consumption responses to house price changes across age and tenure groups. Older homeowners tend to increase consumption when house prices rise. In contrast, middle-aged individuals, often renters or mortgage holders, reduce consumption in response to price increases. The youngest age group also experiences increased consumption but to a lesser degree than the oldest group. Energy-efficient homes are related to lower consumption across all tenure levels. However, when interacted with house prices and age, the estimates are positive, pointing to an unequal accrual of property premiums depending on housing market positions.

Research limitations/implications – The main limitations stem from data constraints. First, using a pseudo-panel approach hinders control for unobservable selection bias. Additionally, while robust under cross-validation and specifications tests, the energy efficiency variable imputation results in a low number of energy-efficient homes. Due to heterogeneous responses to rising house prices, this paper contends that an energy transition model that subsidises homeowners' renovation is likely to produce a negative impact on consumption among younger and middle-aged households.

Originality/value – This paper contributes to the MPC literature by incorporating energy efficiency as a key variable. It draws from recent data to obtain new estimates. By highlighting shifts in consumption patterns the paper contributes to a well-established body of literature with renewed policy relevance regarding housing retrofit.

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Fernández, A., Haffner, M., & Elsinga, M. (2024). *Subsidies or green taxes? Evaluating the distributional effects of housing renovation policies among Dutch households. Journal of Housing and the Built Environment*, 2024, 1-28.

Abstract: Despite persistent housing affordability issues, energy policy and housing renovation are usually investigated separately from housing costs other than energy. Researchers have examined the financial viability of renovation attending to building conditions and the socio-economic characteristics of their occupants. However, the distributional impacts of renovation incentives and the potential of fiscal policy to redistribute housing costs remain understudied. Dutch fiscal policy, favouring homeownership, offers a relevant context to evaluate how property taxation can boost renovation rates. The novelty of this paper resides in investigating the impact of two policies, the current direct subsidy and a proposal for a green tax, on both the financial viability of renovation and the subsequent distribution of housing costs. The proposed green tax combines energy efficiency and taxation of property revenue. We employ a model considering marginal costs of housing renovation, obtained from a government dataset, and marginal benefits, drawn from a hedonic regression. We assess the distributional impacts of different policy scenarios by examining changes in user costs across income deciles. Our findings indicate that existing renovation subsidies exacerbate the regressive distributional impacts resulting from the current housing taxation system in the Netherlands. Introducing energy-efficiency-linked property taxation can make homeownership fiscality less regressive while incentivising housing renovation. Ultimately, this study highlights the importance of

incorporating housing affordability as a fundamental element in renovation policies to balance environmental and distributional objectives.

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Keywords: Housing Renovation, Green Taxes, User Costs, Housing Value, Distributional Impact

Fernández, A., Haffner, M., & Elsinga, M. (2024). *When Land is Not Enough; Drawing in Private Capital to Increase Social Rental Housing in Spain.* [Working paper]

Abstract: Across Northwestern Europe, non-state parties play central roles in maintaining and expanding social housing provision. In Spain, the social rental sector has remained underdeveloped as a result of a historical focus on homeownership. Against the current affordability crisis, a new housing law has banned the sale of public land zoned for social housing. In turn, Private-Public Partnerships have emerged as an alternative where public land is leased to a third party to build and manage social housing. Despite low-cost access to land, social housing development remains financially challenging with some tenders failing to attract private sector interest. This paper delves into a PPP by the Catalan Land Institute to tackle the question: How does the interaction of institutional dynamics and financial constraints influence the provision of social rental housing in Spain? A mixed-methods approach is used, combining insights from interviews with a sensitivity analysis of parameters in a Discounted-Cash-Flow (DCF) model. Evidence from this case underscore high financing costs, weak social protection for renters, and fiscal policies misaligned with social objectives as the main obstacles for social housing provision. This paper suggests future research about the impact of tackling these weaknesses through public-backed guarantors, housing allowances, and fiscal incentives.

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Keywords: Social Housing, Affordability, Finance, Land, PPP

Fernández, A., Elsinga, M., & Haffner, M. (2023). *Investigating the role of ESG bonds and loans in financing housing renovation among social housing providers: a comparative approach to six European countries*. In Diaconu, A. (Ed.) *Proceedings of the RE-DWELL Grenoble Conference* (pp. 84–88). Pacte Social Sciences Research Centre, University Grenoble Alpes, Grenoble, France.

Abstract: The energy transition across Europe’s built environment will probably be one of the main financial challenges of the coming decades. Renovating the social housing stock to attain the built

fabric standards introduced in the European Directive on Energy Performance of Building (EPBD) will require the mobilisation of both public and private funding as envisioned by the European Commission in the Renovation Wave. In this landscape of increased investment needs, Environmental, Social and Governance (ESG) standards have risen to a prominent position as the main indicators of sustainable investment. While ESG-earmarked funds have grown significantly in the last years, there is widespread concern about the real impact of ESG-funded projects and whether these are in fact bringing additional investment into key transitional activities such as the renovation of the social housing stock. This project poses two questions, first, How does ESG funding interlock with the renovation strategies of social housing providers? And second, How do institutional factors affect the uptake of ESG funding? To answer these questions, this project draws from semi-structured interviews with finance officers from housing providers across six European countries with large social housing stocks: Austria, Germany, The Netherlands, France, Sweden, and the UK. The main objective of this paper is to critically assess the contributions of ESG funding to the energy transition and contextualise it within traditional forms of private and public financing of social housing.

Sustainability transition and its financial implications have become an area of legislative focus for European institutions. For instance, the Strategy for financing the transition to a sustainable economy has proposed a set of voluntary standards for European Green Bonds (EUGBS). This standard requires bond issuers to align with the EU Taxonomy, a classification of environmentally sustainable economic activities. When it comes to building renovation, the Taxonomy requires a 30% reduction in primary energy consumption to characterize an investment as “green” and thus be financed through a green bond. For new constructions, the green requirements are even more stringent with primary energy demands set at least 10% lower than national nearly-zero-energy requirements. The introduction of ESG standards does not only target borrowers at the project level but also the information investment funds release to end-investors. The Sustainable Finance Disclosure Regulation (“SFDR”) imposes a set of information disclosure requirements on funds so these are comparable and clearly labelled. For asset managers, these regulations result in increased transparency requirements, updated prospectus and the release of more granular information. The SFDR also details indicators to identify green assets. In the case of real estate, a formula has been proposed for the identification of those energy inefficient assets by taking into account the value of buildings under EPC C and nearly zero-energy (NZEB) in proportion to overall stock value. These indicators serve to assess how Taxonomy-aligned are different investment funds. The EU’s legislation on ESG has so far focused on environmental indicators and the social Taxonomy is yet to be finalised, as a result, while green financing is becoming more tightly regulated, social indicators remain less stringent.

Real estate is one of the areas where Taxonomy-alignment is supposed to be higher and willingness for investment is stronger. However, transitional risks in real estate are deeper since banking and the wider financial sector are reliant on property valuations, albeit with major divergences by country. The Joint Research Centre (JRC) (Alessi & Battiston, 2022), has estimated that while a 100% of real estate activities are taxonomy-eligible only 15% of them are taxonomy-aligned, despite the existence of widespread transitional risks for 70% of the sector. The goals of the EU legislation and guidance are to serve as labels directing investment towards sustainable activities and signalling which areas are under higher environmental risks. Ultimately, the objective of ESG finance is to increase the pool of investors into aligned activities resulting in more favourable lending conditions such as lower interest rates and broader investor bases. Traditionally, the academic literature on Green finance has focused on the question of additionally, that is whether ESG brings additional funding into aligned sectors. Some researchers highlight Green Bonds as not generating additional capital for environmental protection, as these usually refinance conventional ones at more advantageous rates (Bongaerts & Schoenmaker, 2019). Research on Green Bonds (Fatica & Panzica, 2021) has found that ESG-linked securities do seem to be financing new investments into aligned projects.

When it comes to social housing, our preliminary findings point to unequal access to ESG finance. Countries such as the UK where social housing providers have been accessing private funding for decades seem to be more accommodating to ESG reporting requirements. For example, Peabody, a large London-based provider, has issued a 12-year £350m green bond under its new sustainability

financing framework specifically targeting the energy transition and housing stock renovation. In other countries such as the Netherlands where most social housing associations are funded via loans from the Local Authorities and the Water Banks the implementation of ESG criteria seems to be taking place at the financial intermediary level. Similarly, in France, the Caisse de Dépôts (CDC), a bank providing low-interest loans to housing associations, has issued a green bond that has been used for housing renovation by a Parisian housing association. Preliminarily, the capacity of ESG finance to bring additional funding to social housing renovation seems to be path-dependent hinging on national institutional arrangements and prior direct access to capital markets.

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Keywords: ESG, Social Housing, Energy Transition, Green Finance, Sustainability

Fernández, A., Elsinga, M., & Haffner, M. (2023). *Three contradictions between ESG finance and social housing decarbonisation: a comparison of five European countries*. *Housing Studies*, 2023, 1-27.

Abstract: The regulation of financial markets according to Environmental, Social and Governance (ESG) criteria has become a priority for the European Union (EU). Recent legislation, such as the EU Green Taxonomy, aims to identify sustainable investments enhancing transparency and accountability while steering private finance toward environmental objectives. The introduction of ESG criteria poses specific questions for Social Housing Organisations (SHOs), particularly as the decarbonisation of the housing stock is also incorporated into national legislation. This article contributes to the social housing finance literature by breaking ground on ESG, an area of intensive legislative activity currently re-shaping financial markets. The study draws from interviews with SHOs' finance directors, banking officers, rating agencies and public officials to answer the question: How does the introduction of ESG legislation affect the financing of social housing decarbonisation? First, the results show that ESG legislation is broadening reporting responsibilities while producing only limited additional finance ultimately geared towards large and commercially oriented SHOs. Second, the expansion of energy-efficiency requirements is resulting in higher costs creating tensions with SHOs' social mission of building homes at affordable rents. Third, the adoption of ESG financing is producing inequalities in access to capital across national financing systems and individual providers.

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Keywords: Social Housing, ESG, Renovation, Comparative Policy, European Policy

Furman, S., Martínez, A., & Martín, X. (2024). *Social Housing Retrofit: Case studies in resident engagement*. Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain.

Abstract: Social housing retrofit is gaining momentum throughout Europe, in a bid to meet the Net-0 energy targets by 2050. A 2021 recast of the Energy Performance of Buildings Directive stipulates targeting retrofits to those “living in social housing” (European Commission, 2021, p.14). Movements including the Green New Deal’s Renovation Wave and Fit for 55 are supported by funding schemes such as the UK’s Social Housing Decarbonisation Fund and the EU’s Next Generation Fund. Whole-house deep energy retrofitting (DER) has been popularised by top-down initiatives including Passivhaus’ EnerPHit certification, Energy Performance Certificates, and EnergieSprong. However, performance gaps after retrofits can be as high as five times the predicted energy consumption (Traynor, 2019), driven by the rebound effect, the prebound effect, occupant behaviour, improper installation, and simulation uncertainties.

The literature shows that social housing residents are those best placed to describe the way they live and therefore determine their housing needs (Awwal et al., 2022; Boess, 2022; Gianfrate et al., 2017; Lucchi & Delera, 2020; van Hoof & Boerenfijn, 2018; Walker et al., 2014). Residents prioritise non-energy benefits (NEBs) over energy-related benefits (Broers et al., 2022), particularly social housing residents whose needs differ from homeowners (Santangelo & Tondelli, 2017). Resident engagement is therefore a vital component of holistic sustainability in social housing retrofit—social, environmental, and economic—and can increase energy performance, health and wellbeing, quality of life, and user empowerment, thus closing the performance gap.

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Keywords: Social Housing, Retrofit, Case Studies, Resident Engagement

Furman, S. (2022). *Upgrading social housing to meet the socio-economic needs of today's dwellers, and the environmental needs of the planet: A framework beyond retrofit*. In *New Housing Researchers Colloquium (NHRC) at the European Network for Housing Research (ENHR) Conference 2022*. Barcelona, Spain.

Abstract: Increased resident satisfaction is a vital agenda for sustainable social housing retrofit, and a multidimensional challenge. The project concerns upgrading existing social housing stock in line with the triple bottom line of sustainability: social, environmental, and economic.

Commodification of housing has migrated social housing to the private sector, leaving mixed-tenure 'pepper-pot' buildings and disagreement over retrofit decisions. Currently, affordable housing is too expensive for some socio-economic groups. The large-scale retrofit of residential building stock must provide homes people can 'afford'. Housing associations, local authorities, large housing providers and other stakeholders need to be convinced that large-scale retrofit is necessary and will provide a return on investment through lower maintenance costs, reduced crime rates, increased educational attainment, wellbeing, and mental and physical health. Long-term affordability should be considered throughout renovation to deter gentrification.

The research objective is to develop a matrix for mid- to large-scale social housing retrofit to deliver affordable and sustainable housing. Under broad categories such as 'sustainability', the framework will identify key improvements including building envelope and energy efficiency.

The sets of criteria will be informed by 1) successes and failures of some partly-renovated post-war European social housing, 2) deeper case studies identified through consultations with INCASÒL and Housing Europe.

The following questions will be addressed during case study analysis: How long should evaluation of each case study take place? What problems were identified by renovations and how were solutions found? What did the renovators want to achieve? How do the renovations align with sustainability agendas such as the SDG's? How has renovation impacted residents' lives, post occupancy?

From the results, I will originate a comprehensive multi-criteria framework that suggests what renovations should occur, why they should occur, and identify the multiple actors and stakeholders that will benefit, along with a best practice guide for easily digestible information.

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Keywords: Social Housing, Affordable Housing, Retrofit, Sustainability

Horvat, M. (2024). *Improving housing affordability through housing allowances: a pilot project in Croatia. Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain.*

Abstract: Housing affordability is one of the most pressing social problems in most EU Member States. Cities, especially capital cities, are experiencing a significant influx of inhabitants, leading to an increase in housing costs. This gradual densification process combined with slow housing construction is exacerbating affordability inequality for average earners, with the gap widening for those on below average incomes, leaving more and more European households unable to afford adequate housing.

The inability of younger generations and the precariously employed to buy their own home is forcing them into the rental market, earning them the label "Generation Rent". The phenomena of financialisation and privatisation, particularly in CEE countries, have contributed to the high proportion of homeowners in societies. This worsens housing affordability since many housing units are converted into short-term rental properties, limiting long-term rental options and driving up rental prices. In urban

centres, especially in capital cities, there is often a shortage of affordable housing options such as public or rental housing.

In this paper we will look at housing allowances, a special type of demand-side intervention that has characteristics of both a housing subsidy and an income subsidy. We will evaluate a Croatian pilot project in which housing allowances are distributed as a measure to increase housing affordability. Finally, we will recommend policy measures that should be considered for a greater impact of the housing allowances in Croatia.

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Keywords: Affordable Housing, Housing Allowance, Housing Policy

Horvat, M., & Bežovan, G. (2024). *Sustainability and Capacity Analysis of Croatian Homeless Service Providers*. *European Journal of Homelessness*, 18(2). 67-94.

Abstract: Homelessness is a complex phenomenon in today's societies. As such, it is both a manifestation of extreme poverty and social exclusion and a symptom of globalisation and systemic changes in the world economy. Nevertheless, there is a significant research gap regarding the financial, institutional, and social sustainability of homeless service providers, which are the main type of service providers in most EU Member States, especially in Eastern European countries such as Croatia. This study addresses this gap with a mixed methods approach that includes a literature review, a survey of all Croatian homeless service providers, and a focus group with selected providers. The result is that the temporary funding of projects is one of the main problems in attracting and retaining staff and volunteers and ensuring the longevity of the service. We find that civil society organisations (CSOs) from large cities have better financial prospects and find it easier to find adequate staff than those in smaller cities. In terms of social sustainability, much of the success is based on the commitment and social capital of the individual members of the CSOs. We propose that the current project-based funding scheme is changed on the national level into a contract-based funding system to enable a stable financial structure, a more attractive working environment, and a better social reintegration rate for users.

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Keywords: Homeless, Service Providers, Social Service, Civil Organisations, Sustainability

Panagidis, A., & Roussou, E. (2024) *Clientelism and infrastructural gaps in Southern Europe: The implications on housing and urban governance. Proceedings of the RE-DWELL Conference “Sustainable Living, Affordable Homes”, 16 May 2024, Barcelona, Spain.*

Abstract: Unaffordable and unsustainable housing is widely regarded as a harsh side-effect of the failure of pro-market policies. The issue is often used to articulate the flaws of dominant responses through political-economic ties that tend to reconstruct new cases of dispossession (Dikeç, 2007). When exploring the ongoing housing crisis, the dominant narratives of urgent fixes to the problem enabled governments face when enacting policy without questioning the insecure foundations of uneven spatial development (Heslop & Ormerod, 2020).

The inability of the state to protect disenfranchised groups, and the deficiencies of public-private neoliberal models of urban governance have contributed to rising levels of distrust in governance institutions. Adding to the widely regarded problem of the global affordable housing gap (Reid, 2023), the infrastructural gap in the Mediterranean region is identified by the deficits (gaps) in the infrastructures required to mitigate overlapping challenges of sustainable development in general (Dalakoglou, 2016). Moreover, the growing role of the private sector in urban governance and public-private alliances, promoting urban entrepreneurialism (Phelps & Miao, 2020), provide private actors with speculative interests greater degrees of influence in the development of urban infrastructure than society as a whole. A continuation of neoliberal urban planning places real barriers to meaningful citizen participation in the development of sustainable cities.

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Keywords: Clientelism, Southern Europe, Infrastructure, Participation

Pappa, A., & Paio, A. (2023). *The role of commons-oriented policies in the transformation of urban governance: The case of the participatory budget BIP/ZIP in Lisbon*. In 2nd Conference on Participatory Design. Transforming the City: Public Space & Environment, Inequalities & Democracy. Athens, Greece.

Abstract: This study is part of an ongoing PhD research that explores the significance of urban commons in the social and urban sustainability of urban neighbourhoods. This part focuses on the role of commons-oriented local strategies in urban regeneration, in transforming the urban governance through enabling local organisations and community groups, especially the most disadvantaged, to participate in local decision-making processes. The research is situated in Lisbon and the participatory budget program of BIP/ZIP.

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Keywords: Urban Governance, Participatory Budget, Neighbourhoods

Roussou, E., Ricchiardi, A. (2024). *Enclaves of commoning across the divide: self-organised spaces against divisions*. In AESOP Symposium: “Constructing Peace through Public Space: What publics? Whose commons?”. Nicosia, Cyprus.

Abstract: Contemporary Nicosia is characterised by overlapping layers of division. The rising neoliberalisation resulting in intensified touristification and commodification of resources, paired with the tangible division between north and south, and the limited social safety nets for incoming migrants and refugees, widen the socio-economic gaps among different communities. This situation also fuels an increasingly precarious terrain of social and spatial enclosures for urban dwellers to navigate. Against this backdrop, there is a proliferation of bottom-up, self-organised, horizontally managed, non-commercial spaces that operate in the margins of everyday life in Nicosia across the divide. While

these enclaves of “commoning” may vary in terms of scope of activities, members or target audience, they all share similar ideological positioning and socio-ecological values, thus forming a network of alternative forms of encounters. This work explores the factors enabling the emergence of these commons and the ways in which they operate to overcome the various layers of division. By adopting a spatial mapping and ethnographic approach, we look into both spatialities and processes, exploring motivations, intents, actions/activities and methods towards self-sustenance and intercommunal outreach. The exploration highlights commoning practices and discusses their potential in creating bridges across divisions.

Keywords: Commoning, Nicosia, Self-Organised, Spatial Mapping

Tzika, Z. (2024). *Housing as Community Infrastructure: Case Study Analysis of Catalonia’s Grant-of-Use Cooperative Housing*. Presented at the European Network for Housing Research (ENHR) Conference 2024, Delft, the Netherlands.

Abstract: Over the last decades, Barcelona has witnessed the emergence of the grant-of-use cooperative housing model, driven by the socio-political aftermath of the financial crisis. Originating from grassroots efforts, the movement addresses the pressing demand for affordable and adequate housing while responding to the evolving demographics and lifestyles of the population. Progressively the model is opening up geographically to the rest of Catalonia, but also in terms of diversity and inclusion. Among the projects we recognise differences reflecting variations in group values and motivations (such as affordability, neighbourhood revitalization, ecological concerns, and gender perspectives), demographic compositions (age, gender, number of units), land access and tenure types (collective property, social housing), building characteristics (construction systems, typologies), and community living arrangements (private and communal areas, activities). This study aims to shed light on how these groups pursue their housing objectives by analysing the processes of developing the projects, employing a conceptual framework rooted in the capability approach. After a quantitative analysis of 66 ongoing projects, six representative cases were selected for comparison. The projects are selected based on their diversity in relation to their location, their governance and management process, and the architectural result. By comparing the case studies through the conceptual framework of the capabilities approach, we look at the processes, relationships and practices that each group followed in order to understand the conditions that make possible such a project. To do that we look at the motivations, the resources, the conversion factors, choices and conflicts and the final outcomes.

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Keywords: Affordable, Sustainable, Community-Led, Collaborative, Capability Approach

Tzika, Z., Sentieri, C. & Martinez, A. (2024) Key topics and challenges for creating community-led, inclusive and sustainable housing: Catalonia's grant-of-use cooperative housing in Catalonia. Proceedings of the RE-DWELL Conference "Sustainable Living, Affordable Homes", 16 May 2024, Barcelona, Spain.

Abstract: Over the last two decades, Barcelona has witnessed the emergence of a cooperative housing movement, known as the grant-of-use model, spurred by the socio-political context following the global financial crisis. This movement is part of a broader trend seen across Europe (Czischke et al., 2020; Tummers, 2016). Originating from grassroots efforts, it primarily seeks to address the pressing demand for affordable and adequate housing, while also responding to demographic shifts and the evolving housing needs within the population (Cabré & Andrés, 2018). The model has spread from the

city of Barcelona to the rest of the territory, reaching smaller cities and rural areas (Tzika et al., 2023). The main characteristic of the grant-of-use cooperatives is the long-term right to use a home rather than own it, promoting non-speculative housing and positioning it as a collective endeavour. Residents actively participate in decision-making processes, reinforcing this model's collaborative nature (Avilla-Royo et al., 2021; Sostre Civic, 2017). By reconsidering the architectural typologies of housing through the incorporation of communal spaces and facilities, while parallelly creating more communal ways of living, these communities reshape the concept of dwelling and transform the social dynamics among residents (Lacol et al., 2018). Given the diverse project values and aims of the groups (affordability, neighbourhood revitalisation, ecological considerations, gender perspective), their demographic composition (age, gender, number of units), land access and tenure type (collective property, social housing), building characteristics (construction system, typology, rehabilitation), and community living (private and communal areas, activities), the approaches of each group and their collaboration with external entities can vary significantly (Lang et al., 2020). This article aims to identify the key challenges shaping the cooperative housing landscape in Catalonia and explore how different groups navigate these challenges.

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Tzika, Z., Sentieri, C., & Martínez, A. (2023). Towards collective forms of dwelling: the grant-of-use housing cooperatives in Catalonia. *Revista de Arquitectura*, 28(45), 54–75. <https://doi.org/10.5354/0719-5427.2023.70003>

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Keywords: Collaborative Housing, Participation, Capability Approach, Inclusion

Tzika, Z., & Sentieri, C. (accepted, 2024). *Housing as Community Infrastructure: Analysis of Senior Cooperative Housing Using the Capability Approach*. *Journal of Housing and the Built Environment*.

Abstract: Over the last decade, Barcelona has witnessed the emergence of a cooperative housing movement, known as the grant-of-use model. The phenomenon was spurred by the socio-political context following the global financial crisis. The movement appeared from the bottom up, primarily to address the pressing demand for affordable and adequate housing and to respond to demographic shifts and the evolving housing needs of the population. The projects advocate for non-speculative housing, positioning it as a collective endeavour. Residents actively participate in decision-making, suggesting more communal ways of living, and exploring new arrangements of private and common spaces within housing. These projects reconsider the concept of dwelling by reimagining the architecture of housing and proposing alternative typologies that incorporate shared spaces and facilities. Furthermore, they reconsider the 'social architecture', emphasizing the importance of care within communities. Senior cooperative housing has appeared as such a case within Barcelona's broader cooperative housing context, exemplifying a paradigm shift for communities of adults over 55 years old. This article seeks to analyse the process through which a senior cooperative housing project in Barcelona navigates the challenges and opportunities in achieving its spatial and relational housing outcomes. Employing the Capability Approach as a conceptual framework, this study identifies the key factors that facilitated and hindered the group's progress. Through a case study analysis, the paper explores how the community's capabilities were developed, the critical junctures in the process, and the implications for the broader landscape of housing provision. The findings aim to shed light on the

complexities of collective housing initiatives and contribute to a deeper understanding of community-led housing models.

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Keywords: Grant-of-Use, Co-Housing, Affordable Housing, Sustainable Housing, Collaborative Housing, Care, Participation

Tzika, Z., & Sentieri, C. (2023). *Towards collective forms of dwelling: Analysis of the characteristics of the emerging grant-of-use housing cooperatives in Catalonia*. In 2nd Participatory Design Conference. Transforming the City: Public Space & Environment, Inequalities & Democracy. Athens, Greece.

Abstract: The cooperative housing model that has emerged in Catalonia since 2015, has received interest as an alternative form of housing, originating from grassroots initiatives and placing the emphasis on community. Cooperative housing appears during periods when prevailing housing markets fail to provide adequate solutions. Groups are engaging in self-organisation, and collective decision-making, to assess their needs, negotiate resources, and co-create alternative housing options. While affordable housing access remains a core objective, cooperative housing goes beyond that, challenging individualistic living norms and emphasizing community relationships. Based on the analysis, it is observed that Catalonia’s cooperative housing model has been evolving towards greater diversity, offering new possibilities for dwelling and fostering community-oriented housing. This evolution is evident in both the spatial characteristics of the houses and their social organisation. However, despite efforts from the cooperative housing groups and non-profit organisations in the sector to address challenges related to inclusion, long consolidation processes and financial barriers, there is still room for improvement.

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