

Bringing together citizens and professionals to develop know-how for energy efficient renovations: Methodological appendix



May 2025

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1. Methodological background to SHARED GREEN DEAL efficient renovations report

This Appendix provides methodological background to the report: Bringing together citizens and professionals to develop know-how for energy efficient renovations (Foulds et al., 2025). In particular, it provides supporting information to Section 2 of that report, which explains how four social experiments on efficient renovations were conducted, and gives an overview of empirical methods. This Appendix offers additional detail on these methods. It first outlines the case study approach and descriptions (section 1.1); then data collection (1.2); and finally data analysis (1.3).

1.1. Case study approach and descriptions

We opted for a multi-case study approach. Whilst this did offer potential for comparison, the main rationale for collecting data across four European cases was to enable further exposure to different social contexts, including a wide variety of Knowledge Network participant experiences and organiser approaches.

Following on from an initial Call for Expressions of Interest (with 950+ expressions across six experiment streams, of which renovations was one), we ran an open application process that had the following eligibility criteria:

- Applicants needed to be located in the EU or countries associated with Horizon2020 (note: this included the UK).
- Applicants needed to be either: a local or regional authority (including municipalities, cities, towns, villages and their local municipally owned companies and agencies); or, a not-for-profit organisation (e.g. Non-Governmental Organisations (NGOs), civil society organisations, associations etc).
- Financial capacity applicants needed to have stable and sufficient resources to successfully implement their local social experiment.
- The applicant's main contact persons were required to have at least level B1 command of English.

The final application form and the accompanying Frequently Asked Questions guidance documents are still publicly available for transparency purposes¹. We received 29 applications to this Efficient Renovations experiment stream. For fairness and consistency, all proposals were double reviewed by the same two consortium partners, with final decisions made at the all-stream Evaluation Committee level. Our evaluation criteria were as follows:

• Relevance: scope, objectives, impact (40 points)

¹ SHARED GREEN DEAL FAQs



- Problem analysis and quality of the approach to address the described problem (15 points)
- The target group is clearly defined and is/will be appropriately engaged (10 points)
- · Link to existing local/European initiatives (15 points)
- Quality: actions, allocation of resources (30 points)
 - Is the action clear and consistent? (20 points)
 - · Allocation of resources and skills (10 points)
- Impact: expected results and visibility (30 points)
 - Communication (10 points)
 - Results (10 points)
 - Outreach (10 points)

Our evaluation processes led to the selection of the following four subcontractor organisations (which we term, local partners):

- Let's renovate the city (VšĮ Atnaujinkime miestą), Vilnius, Lithuania
- Habitat for Humanity (Magyarország Alapítvány), Nógrád County, Hungary
- ECODES (Fundación Ecología y Desarrollo), Zaragoza, Spain
- Mayo County Council and Climate Action Louisburgh Locality, County Mayo, Ireland

This resulted in us working with: two non-for-profit organisations and two municipality (-owned/ affiliated) organisations; two with housing stocks dominated by multi-apartment renters and two dominated by detached house owner-occupiers; and one each of the four European regions (North, East, South, West). Further background information on the local contextual settings of each of is available in Table A1.1a.



Table A1.1a. Presentation of the local context of each experimentation location by local partners (taken from application data)

Experiment location	Local contextual setting
Vilnius, Lithuania	Vilnius is the capital of Lithuania, located in the south east of the country. The city is the second most populous city in the Baltic states. Known for its medieval Old Town, Vilnius is a site for tourism as well as a global financial centre.
	Around 70% of multi-apartment buildings in Vilnius are old houses that were built before 1993. The multi-apartment buildings are in different technical condition due to the age, building materials, deterioration, and energy efficiency. These buildings are seen as aesthetically unattractive and are energy inefficient. The majority of homes in Lithuania are owner-occupied, yet there is increasing demand for rental properties within Vilnius (as more people are moving to the capital, with Vilnius being the only Lithuanian city to have its population increase by 4.1% over the last decade).
Nógrád County, Hungary	Nógrád is Hungary's second smallest county, located north-east of Budapest, on the Slovak border. Most of its territory is hilly, heavily wooded landscape dominated by villages, many with a population of less than 1000. The area is dominated by energetically substandard detached houses. In terms of heating, 60-70% of properties use solid fuel, often in individual space heaters (stoves). In addition to the low energy performance of buildings, there are also lower wages and lower education levels in the region than the national average. A significant proportion of the population lacks energy efficiency or financial awareness.
	The majority of properties in the county are one-storey single-family houses in the small rural settlements. They are usually owner-occupied dwellings. The number of social housing units is low (the level of interest in these properties is greater than the number of properties available for applicants). The majority of properties are uninsulated or have windows and doors in poor condition in terms of energy efficiency.
Zaragoza, Spain	Zaragoza is a medium-sized city in north-east Spain. The city is densely populated with 667,000 inhabitants.
	The majority of the city's building stock (56%) was built before 1981. Multi-family apartment buildings in the city experience insulation and accessibility issues. Less than 1% of the city's residential building stock is social housing (with this being lower than both the national Spanish average (2.3%) and the EU average).
Mayo County, Ireland	Louisburgh locality is a rural, remote and mountainous area in County Mayo, western Ireland. The area has one main town centre with many small villages surrounding this. There are also two offshore islands with a total of 250 residents - the islands are accessible via a daily ferry. Within the area, farming is the main enterprise as much of the agricultural land is boggy or marginal. Tourism also contributes to the local economy, as well as a small factory and a brewery.
	Across Louisburgh, there are 1,720 houses, of which 1,498 are occupied. The majority of homes are owner occupied (78%), some homes are rented from private landlords (13%) or social housing providers (4%). Three-quarters of homes have 5 to 8 rooms. 64% of homes were built before 2000, with these having either basic insulation or no insulation at all.



Following an in-person training event to establish shared expectations on the experiment design and journey (April 2023), our four local partners launched their respective Knowledge Networks during June-September 2023. The local partners worked hard to ensure balance between professionals and citizens, as well as genders, amongst their Network Memberships. More generally too, they sought to recruit a range of experiences, for example with professionals spanning a variety of renovation professions and job roles (e.g. renovation finance, architecture, tradespeople). Whilst a range of citizens were sought and to some extent was achieved (e.g. renovation stages, learning ambitions), the local contexts inevitably strongly steered the final Network make-up. For example, the two city locations were dominated by renters in multi-apartment buildings and the two rural locations were dominated by owner-occupiers in detached houses.

As part of officially consenting to Network participation, every participant completed a Network Membership survey (SHARED GREEN DEAL, 2025b), which also collated additional information on their backgrounds. A resulting summary of the four Network Memberships is available in Table A1.1b. Network Members' motivations for participating in the Network are shown in Table A1.1c.

Table A1.1b. Aggregated summary of each Network's membership characteristics

			۲	Vilnius	, Lithuan	ia			Nógr	Nógrád County, Hungary					Zaragoza, Spain				Mayo, Ireland					Total for all experiments									
		Cit	zizens	Profe	ssionals	То	otal	Citi	zens	Profes	ssionals	То	tal	Citi	zens	Profes	ssionals	То	otal	Citi	zens	Profe	ssionals	Т	otal	Citi	zens	Profes	ssionals	Тс	otal		
der	Man	9	24%	7	18%	16	42%	5	16%	7	23%	12	40%	7	21%	10	29%	17	50%	7	19%	9	25%	16	44%	28	20%	33	24%	61	44%		
Gene	Woman	12	32%	10	26%	22	58%	10	33%	8	27%	18	60%	8	24%	9	26%	17	50%	13	36%	7	19%	20	56%	46	33%	33	24%	79	56%		
	18-29 years	0	0%	2	5%	2	5%	1	3%	1	3%	2	7%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%	3	2%	4	3%		
	30-39 years	2	5%	2	5%	4	11%	9	30%	5	17%	14	47%	0	0%	3	9%	3	9%	1	3%	2	6%	3	8%	11	8%	14	10%	25	18%		
	40-49 years	2	5%	6	16%	8	21%	4	13%	8	27%	12	40%	6	18%	7	21%	13	38%	7	19%	5	14%	12	33%	23	16%	23	16%	46	33%		
e Bć	50-59 years	5	13%	2	5%	7	18%	1	3%	1	3%	2	7%	1	3%	6	18%	7	21%	0	0%	5	14%	5	14%	7	5%	14	10%	21	15%		
Ă	60-69 years	9	24%	4	11%	13	34%	0	0%	0	0%	0	0%	4	12%	1	3%	5	15%	7	19%	2	6%	9	25%	20	14%	7	5%	27	19%		
	70-79 years	3	8%	1	3%	4	11%	0	0%	0	0%	0	0%	3	9%	2	6%	5	15%	2	6%	0	0%	2	6%	8	6%	3	2%	11	8%		
	80+ years	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	3%	0	0%	1	3%	3	8%	1	3%	4	11%	4	3%	1	1%	5	4%		
	Prefer not to say	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	3%	1	3%	0	0%	1	1%	1	1%		
uo	Key school exams*	1	3%	2	5%	3	8%	14	47%	9	30%	23	77%	10	29%	1	3%	11	32%	4	11%	2	6%	6	17%	32	23%	13	9%	45	32%		
ucati tion	University Bachelors	6	16%	6	16%	12	32%	0	0%	2	7%	2	7%	4	12%	9	26%	13	38%	7	19%	5	14%	12	33%	17	12%	22	16%	39	28%		
ighest ed qualifica	University Masters	13	34%	9	24%	22	58%	1	3%	4	13%	5	17%	0	0%	8	24%	8	24%	5	14%	4	11%	9	25%	19	14%	25	18%	44	31%		
	University PhD	1	3%	0	0%	1	3%	0	0%	0	0%	0	0%	0	0%	1	3%	1	3%	0	0%	3	8%	3	8%	1	1%	4	3%	5	4%		
Ĥ	Other	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	3%	0	0%	1	3%	4	11%	2	6%	6	17%	5	4%	2	1%	7	5%		
lai	<1 year			2	5%	2	5%	6		2	7%	2	7%			3	9%	3	9%			0	0%	0	0%			7	5%	7	5%		
ssion	1-2 years					3	8%	3	3 8%			2	7%	2	7%			1	3%	1	3%			0	0%	0	0%			6	4%	6	4%
profe	2-5 years	N/A	N/A	3	3 8%	3	8% ¥/	N/A	N/A	4	13%	4	13%	N/A	N/A	2	6%	2	6%	N/A	N/A N/A	2 6%	6%	2	6%	N/A	N/A	10	7%	10	7%		
exl exl	5-10 years			4	11%	4	11%			3	10%	3	10%			3	9%	3	9%			0	0%	0	0%			10	7%	10	7%		
λę	10+ years			5	13%	5	13%			4	13%	4	13%			10	29%	10	29%			14	39%	14	39%			33	24%	33	24%		
e*	Thinking	8				8		1				1		6				6		3				3		20				20			
stag	Planning	7				7		2				2		2				2		9				9		22				22			
ation	Performing	2		N/A	N/A	2		3		N/A	N/A	3		0		N/A	N/A	0		9		N/A	N/A	9		17		N/A	N/A	17			
enova	Sharing	2				2		9				9		10				10		8				8		29				29			
R	N/A	8				8		1				1		3				3		2				2		14				14			
	Owner-occupier	13	34%			13	34%	14	47%			14	47%	14	41%			14	41%	19	53%			19	53%	62	44%			62	44%		
type	Shared ownership	6	16%			6	16%	1	3%			1	3%	1	3%			1	3%	0	0%			0	0%	9	6%			9	6%		
ancy	Privately renting	0	0%	N/A	N/A	0	0%	0	0%	N/A	N/A (0	0%	0	0%	N/A	N/A	0	0%	0	0%	N/A	N/A	0	0%	0	0%	% % %	N/A	0	0%		
Ten	Social housing	0	0%			0	0%	0% 0	0%	2		0	0%	0	0%			0	0%	1	3%	3%		1	3%	1	1%			1	1%		
	Other	2	5%			2	5%	0	0%			0	0%	0	0%			0	0%	0	0%			0	0%	2	1%			2	1%		
*																																	

*can respond with multiple options

Note: one survey from Nógrád County, Hungary was lost, meaning the characteristics for this Member are not captured in the table

Table A1.1c. Aggregated summary of Network Members' motivations for participating in the Network

	Vilnius, I	Lithuania	Nógrád C	county, Hungary	Zaragoz	a, Spain	Mayo, Ireland		Total for all experiments	
	Citizens	Profess- ionals	Citizens	Profess-ionals	Citizens	Profess- ionals	Citizens	Profess- ionals	Citizens	Profess- ionals
Total participants	21	17	15	15	15	19	20	16	73	67
The topic is new to me.	9 (43%)	5 (29%)	4 (27%)	4 (27%)	6 (40%)	2 (11%)	6 (30%)	2 (13%)	25 (34%)	13 (19%)
This directly aligns with my current job responsibilities.	N/A	15 (88%)	N/A	15 (100%)	N/A	15 (79%)	N/A	12 (75%)	N/A	57 (85%)
This could represent an opportunity for me to gain additional work from possible future clients.	N/A	4 (24%)	N/A	1 (7%)	N/A	4 (21%)	N/A	3 (19%)	N/A	12 (18%)
I have much to learn about the processes for doing energy efficiency in <location>.</location>	N/A	11 (65%)	N/A	2 (13%)	N/A	6 (32%)	N/A	4 (25%)	N/A	23 (34%)
I wish to learn from the expectations and experiences of householders and community groups who are interested in improving home energy efficiency.	N/A	11 (65%)	N/A	6 (40%)	N/A	16 (84%)	N/A	11 (69%)	N/A	44 (66%)
I wish to meet and network with like-minded people who are interested in similar local issues on energy efficiency.	13 (62%)	12 (71%)	1 (7%)	7 (47%)	3 (20%)	15 (79%)	18 (90%)	11 (69%)	37 (51%)	45 (67%)
I wish to contribute to the community and to local issues with my expertise	N/A	9 (53%)	N/A	8 (53%)	N/A	15 (79%)	N/A	14 (88%)	N/A	46 (69%)
I wish to learn more about different energy efficient renovation options.	19 (90%)	N/A	9 (60%)	N/A	11 (73%)	N/A	13 (65%)	N/A	54 (74%)	N/A
I wish to learn more about financing options for a future energy efficient renovation.	15 (71%)	N/A	8 (53%)	N/A	0 (0%)	N/A	10 (50%)	N/A	35 (48%)	N/A
I wish to learn about possible local suppliers and the services they provide.	16 (76%)	N/A	2 (13%)	N/A	2 (13%)	N/A	12 (60%)	N/A	34 (47%)	N/A
I have recently undertaken an energy efficient renovation and wish to share my experiences with others.	2 (10%)	N/A	11 (73%)	N/A	4 (27%)	N/A	9 (45%)	N/A	26 (36%)	N/A
Other	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (11%)	2 (10%	2 (13%)	2 (3%)	4 (6%)
Note: one Membership survey from Nógrád County, Hungary v	was lost, me	eaning the	motivation	s for this Member	· are not ca	ptured in t	he table			

Each Network's learning journey was organised differently because of differences across the local partners' overall visions, availabilities, and local renovation norms, in addition to different participant preferences as needed (as was often directly discussed in each Network's launch event). A brief description of all Network activities is available in Tables A1.1d-g, alongside a breakdown of Network Member participation.

Table A1.1d. Breakdown of participants at Vilnius Network events

		Network Member pa	articipation	Overall participation			
Activity	Description	No. attended (% of total final Network)	Gender (% of Network Member attendees)	Participant type (% of Network Member attendees)	No. of non-Network Member attendees	Overall no. of event attendees	
Launch event	30/08/23: 1st Network event (launch)	22 (58%)	9 men (41%) 13 women (59%)	12 professionals (55%) 10 citizens (45%)	11	33	
Visit 1	16/10/23: Visit - heating supplier	13 (34%)	7 men (54%) 5 professionals (38%) 6 women (46%) 8 citizens (62%)		4	17	
Visit 2	28/10/23: Visit - Vilnius Climate Week session and stand	15 (39%)	6 men (40%) 9 women (60%)	7 professionals (47%) 8 citizens (53%)	8	23	
Visit 3	30/11/23: Visit - ventilation supplier	9 (24%)	7 men (78%) 2 women (22%)	1 professional (11%) 8 citizens (89%)	7	16	
Visit 4	24/01/24: Visit - facades supplier	8 (21%)	4 men (50%) 4 women (50%)	1 professional (12.5%) 7 citizens (87.5%)	7	15	
Visit 5	14/03/24: P.Vileišio (eco-tour - new build)	18 (47%)	6 men (33%) 12 women (67%)	5 professionals (28%) 13 citizens (72%)	9	27	
Visit 6	14/03/24: Beržų terasos (eco-tour - new build)	18 (47%)	6 men (33%) 12 women (67%)	5 professionals (28%) 13 citizens (72%)	9	27	
Visit 7	14/03/24: Žirmūnų (eco-tour – post renovation)	17 (45%)	5 men (29%) 12 women (71%)	4 professionals (24%) 13 citizens (76%)	7	24	
Visit 8	14/03/24: Žirmūnų (eco-tour – post renovation)	15 (39%)	3 men (20%) 12 women (80%)	2 professionals (13%) 13 citizens (87%)	9	24	
Visit 9	14/03/24: Buivydiškių (eco-tour – during renovation)	14 (37%)	3 men (21%) 11 women (79%)	2 professionals (14%) 12 citizens (86%)	9	23	
Final event	28/03/24: Final event	18 (47%)	9 men (50%) 9 women (50%)	8 professionals (44%) 10 citizens (56%)	9	27	
	Average:	15 (40%)	5.9 men (41%) 9.3 women (59%)	4.7 professionals (29%) 10.5 citizens (71%)	8.3	23.3	

Table A1.1e. Breakdown of participants at Nógrád County Network events

		N	etwork Member partic	ipation	Overall participation			
Activity	Description	No. attended (% of total final Network)	Gender (% of Network Member attendees)	Participant type (% of Network Member attendees)	No. of non-Network Member attendees	Overall no. of event attendees		
Launch event	14/09/23: 1st Network event (launch)	24 (59%)	7 men (29%) 17 women (71%)	9 professionals (37.5%) 15 citizens (62.5%)	2-3*	26-27*		
Visit 1	14/09/23: Cserháthaláp (eco-tour – pre renovation)	7 (17%)	3 men (43%) 4 women (57%)	4 professionals (57%) 3 citizens (43%)	2-3*	9-10*		
Visit 2	14/09/23: Ecseg (eco-tour – post renovation)	6 (15%)	2 men (33%) 4 women (67%)	3 professionals (50%) 3 citizens (50%)	2-3*	8-9*		
Visit 3	15/12/23: Balassagyarmat (eco-tour – pre renovation)	9 (22%)	4 men (44%) 5 women (56%)	5 professionals (56%) 4 citizens (44%)	2-3*	11-12*		
Visit 4	15/12/23: Ipolyvece (eco-tour – post renovation)	9 (22%)	4 men (44%) 5 women (56%)	5 professionals (56%) 4 citizens (44%)	2-3*	11-12*		
Visit 5	20/02/24: Ludányhalászi (eco-tour – pre renovation)	13 (32%)	4 men (31%) 9 women (69%)	5 professionals (38%) 8 citizens (62%)	2-3*	15-16*		
Visit 6	20/02/24: Őrhalom (eco-tour – during renovation)	13 (32%)	4 men (31%) 9 women (69%)	5 professionals (38%) 8 citizens (62%)	2-3*	15-16*		
Visit 7	20/02/24: Csesztve (eco-tour – post renovation)	10 (24%)	3 men (30%) 7 women (70%)	3 professionals (30%) 7 citizens (70%)	2-3*	12-13*		
Final event	14/03/2024: Final event	16 (39%)	6 men (37.5%) 10 women (62.5%)	7 professionals (44%) 9 citizens (56%)	2-3*	18-19*		
	Average:	11.9 (29%)	4.1 men (36%) 7.8 women (64%)	5.1 professionals (45%) 6.8 citizens (55%)	2-3*	14-15*		
*around 2-3 non-	Network Members attended each event, these att	endees did not sign th	e sign-in sheet meaning	g exact attendance numbers	s are not possible			

Table A1.1f. Breakdown of participants at Zaragoza Network events



		Network Member par	ticipation	Overall participation			
Activity	Description	No. attended (% of total final Network)	Gender (% of Network Member attendees)	Participant type (% of Network Member attendees)	No. of non-Network Member attendees	Overall no. of event attendees	
Launch event	15/09/2023: 1 st Network event (launch)	21 (62%)	11 men (52%) 10 women (48%)	13 professionals (62%) 8 citizens (38%)	2	23	
Visit 1	12/12/23: Andrea Casamayor Buildings (eco-tour – pre and post renovation)	12 (35%)	6 men (50%) 6 women (50%)	5 professionals (42%) 7 citizens (58%)	4	16	
Visit 2	12/12/23: Andrea Casamayor Buildings (eco-tour – post renovation)	12 (35%)	6 men (50%) 6 women (50%)	5 professionals (42%) 7 citizens (58%)	4	16	
Visit 3	12/12/23: Andrea Casamayor Buildings (eco-tour – pre renovation)	12 (35%)	6 men (50%) 6 women (50%)	5 professionals (42%) 7 citizens (58%)	4	16	
Visit 4	09/01/24: Balsas de Ebro Viejo neighbourhood 1 (eco-tour – pre renovation)	10 (29%)	6 men (60%) 4 women (40%)	6 professionals (60%) 4 citizens (40%)	10	20	
Visit 5	09/01/24: Balsas de Ebro Viejo neighbourhood 1 (eco-tour – pre renovation)	10 (29%)	6 men (60%) 4 women (40%)	6 professionals (60%) 4 citizens (40%)	10	20	
Visit 6	09/01/24: Balsas de Ebro Viejo neighbourhood 1 (eco-tour – post renovation)	10 (29%)	6 men (60%) 4 women (40%)	6 professionals (60%) 4 citizens (40%)	10	20	
Visit 7	09/01/24: Balsas de Ebro Viejo neighbourhood 2 (eco-tour – post renovation)	10 (29%)	6 men (60%) 4 women (40%)	6 professionals (60%) 4 citizens (40%)	10	20	
Visit 8	09/01/24: Balsas de Ebro Viejo neighbourhood 3 (eco-tour – post renovation)	10 (29%)	6 men (60%) 4 women (40%)	6 professionals (60%) 4 citizens (40%)	7	17	
Visit 9	09/01/24: Balsas de Ebro Viejo neighbourhood 4 (eco-tour – post renovation)	10 (29%)	6 men (60%) 4 women (40%)	6 professionals (60%) 4 citizens (40%)	7	17	
Visit 10	21/03/2024: Actur Neighbourhood (eco-tour – post renovation)	8 (24%)	4 men (50%) 4 women (50%)	6 professionals (75%) 2 citizens (25%)	4	12	
Visit 11	21/03/2024: Actur Neighbourhood (eco-tour – post renovation)	8 (24%)	4 men (50%) 4 women (50%)	6 professionals (75%) 2 citizens (25%)	4	12	
Visit 12	21/03/2024: Actur Neighbourhood (eco-tour – pre renovation)	8 (24%)	4 men (50%) 4 women (50%)	6 professionals (75%) 2 citizens (25%)	4	12	
Final event	02/04/2024: Final event	9 (26%)	3 men (33%) 6 women (67%)	4 professionals (44%) 5 citizens (56%)	0	9	
Visit 13	22/04/2024: Grupo Picarral (eco-tour – pre renovation)	4 (12%)	2 men (50%) 2 women (50%)	2 professionals (50%) 2 citizens (50%)	4	8	
Visit 14	22/04/2024: Grupo Picarral (eco-tour – post renovation)	4 (12%)	2 men (50%) 2 women (50%)	2 professionals (50%) 2 citizens (50%)	4	8	
	Average:	9.9 (29%)	5.3 men (53%) 4.6 women (47%)	5.6 professionals (57%) 4.3 citizens (43%)	5.4	15.4	



Table A1.1g. Breakdown of participants at Mayo County Network events

		Network Member pa	articipation	Overall participation			
Activity	Description	No. attended (% of total final Network)	Gender (% of Network Member attendees)	Participant type (% of Network Member attendees)	No. of non-Network Member attendees	Overall no. of event attendees	
Launch event	28/06/23: Louisburgh (Launch Event)	24 (67%)	11 men (46%) 13 women (54%)	12 professionals (50%) 12 citizens (50%)	0	24	
Visit 1	14/07/23: Inisturk (Eco-tour - post renovation)	14 (39%)	9 men (64%) 5 women (36%)	6 professionals (43%) 8 citizens (57%)	0	14	
Visit 2	21/08/23: Cregganbaun (Eco-tour - pre renovation)	12 (33%)	6 men (50%) 6 women (50%)	5 professionals (42%) 7 citizens (58%)	2	14	
Visit 3	08/09/23: Ballycroy (Eco-tour, day trip on bus, pre renovation)	13 (36%)	6 men (46%) 7 women (54%)	5 professionals (38%) 8 citizens (62%)	1	14	
Visit 4	08/09/23: Bangor Hall (Eco-tour, day trip on bus, post renovation)	13 (36%)	6 men (46%) 7 women (54%)	5 professionals (38%) 8 citizens (62%)	1	14	
Visit 5	08/0923: Carroowteige (Eco-tour, day trip on bus, pre renovation)	10 (28%)	6 men (60%) 4 women (40%)	5 professionals (50%) 5 citizens (50%)	1	14	
Visit 6	08/09/23: Cornboy (Eco-tour, day trip on bus, post renovation)	10 (28%)	6 men (60%) 4 women (40%)	5 professionals (50%) 5 citizens (50%)	1	14	
Visit 7	08/09/23: Eachleim (Eco-tour, day trip on bus, post renovation)	10 (28%)	6 men (60%) 4 women (40%)	5 professionals (50%) 5 citizens (50%)	1	14	
Visit 8	08/09/23: Irish Wheelchair Association (Eco-tour, day trip on bus, post renovation)	14 (39%)	6 men (43%) 8 women (57%)	5 professionals (36%) 9 citizens (64%)	1	14	
Visit 9	12/10/23: Callacoon (Eco-tour, pre renovation)	12 (33%)	7 men (58%) 5 women (42%)	3 professionals (25%) 9 citizens (75%)	0	12	
Visit 10	06/11/23: Westport (Eco-tour, pre renovation)	13 (36%)	7 men (58%) 6 women (42%)	8 professionals (62%) 5 citizens (38%)	0	13	
Visit 11	15/12/23: Feeone (Eco-tour, post renovation)	9 (25%)	4 men (44%) 5 women (56%)	4 professionals (44%) 5 citizens (56%)	0	9	
Visit 12	07/02/23: Westport (Eco-tour, post renovation)	11 (31%)	5 men (45%) 6 women (55%)	6 professionals (55%) 5 citizens (45%)	1	12	
Final event	26/03/23: Final event	21 (58%)	8 men (38%) 13 women (62%)	9 professionals (43%) 12 citizens (57%)	4	25	
	Average:	13.3 (37%)	6.6 men (51%) 6.6 women (49%)	5.9 professionals (45%) 7.4 citizens (55%)	0.9	14.8	



1.2. Data collection

We oversaw 40 semi-structured interviews across the four locations (10 in each), over March-May 2024 (see Table A1.2a for an overview of the interview durations). These interviews were undertaken by our local partners, who had already built the relationships with the local Knowledge Network Members. This approach also allowed for the majority of interviews to be conducted face-to-face, and for all interviews to be conducted in the local language (although the final analysed transcripts - see details in section 1.3 of this Appendix - were translated versions in English). The interview protocol and anonymised transcripts for these interviews are available open-access (SHARED GREEN DEAL, 2025a).

Experiment location	Total interview duration (sum of 10 interviews)	Mean average interview duration	Minimum interview duration	Maximum interview duration
Vilnius, Lithuania	6hrs, 53mins, 50secs	41mins, 23secs	17mins, 36secs	58min, 41secs
Nógrád County, Hungary	8hrs 12mins 53secs	49mins 17secs	35 mins 37 secs	57mins 53 secs
Zaragoza, Spain	7hrs, 7min, 27secs	42min, 45secs	29mins, 21secs	55mins, 51secs
Mayo County, Ireland	9hrs, 10mins, 47secs	55mins, 5secs	46min, 52secs	59min, 16secs

Table A1.2a. Interview durations per experiment location

From our Network Membership pool of 140 members, a core eligibility requirement for interview participant selection was that they did participate in Network activities, and thus no-one was interviewed who attended only one (or no) Network event. This said, it was important for us to seek a range of degrees of participation, hence we intentionally sought out some participants who attended relatively fewer events. Our participant selection also prioritised balancing: gender (with a target of over 50% of participants not being men); participant type (i.e. did they participate in their professional capacity, or not); and, a range of backgrounds and experiences. For the latter priority criterion on experiences – and specifically bearing in mind our study's core interest in experiential knowledges - we looked for variation in Network Member responses to three relevant questions² to the original Network Membership Survey. Table A1.2b provides a detailed, individual-level breakdown of the 40 participants that were interviewed. An aggregated overview of the 40 participants is available in Table 2.2b in the main report (Foulds et al., 2025).

The majority of interview participants were within the 40-49 age bracket (40%), with this reflecting the broader Network sample where this was also the dominant age bracket whereby a third of all Network Members across the experiments were aged 40-49. The number of events attended by the interview participants varied, with some interviewed participants attending only 14% of events, with others attending over 90% of events. Note that it was made clear from the start (i.e. in the Network invitations and launch events) that members were not necessarily required to attend all events. The result was that the average percentage of events attended by the interview participants with differing levels of engagement with the Network activities was intentional to capture different experiences and motivations. The tenure type of the

² For both professional and citizen participants, we considered their stated reason(s) for joining the Network in the first place. Then, as a proxy for renovation know-how: professional participants only, we considered where their technical expertise predominantly lay (e.g. architecture, construction, finance, insulation, local government, planning, product supplier, social work); and, for citizen participants only, we considered the stage of renovation that they were currently at (e.g. not thought about it yet, thinking, planning, performing, sharing).



interviewed Network Members was predominantly owner-occupied, but there were also participants with a social housing tenure interviewed.

Regarding the interview participants' motivations for participating in their respective Knowledge Networks, wanting to meet and network with like-minded individuals was the most frequent motivation. Considering the expertise of the professional Network Members that were interviewed, a range of expertise was present including researchers, construction, local government and surveying.



Table A1.2b. Interview participant characteristics, per experiment location

Anonymised interview participant code	Experiment location	Participant type	Gender	Age (years)	Number (and %) of Network events attended	Interview duration (hrs:mins:secs)
LT1	Lithuania	Professional	Woman	30-39	3 (27%)	00:17:36
LT2	Lithuania	Professional	Woman	50-59	2 (18%)	00:43:10
LT3	Lithuania	Citizen	Man	50-59	10 (91%)	00:35:14
LT4	Lithuania	Citizen	Woman	60-69	9 (82%)	00:48:28
LT5	Lithuania	Citizen	Man	30-39	5 (45%)	00:37:33
LT6	Lithuania	Professional	Man	40-49	2 (18%)	00:45:29
LT7	Lithuania	Citizen	Man	60-69	11 (100%)	00:40:45
LT8	Lithuania	Professional	Woman	60-69	3 (27%)	00:43:59
LT9	Lithuania	Professional	Man	30-39	4 (36%)	00:58:41
LT10	Lithuania	Citizen	Woman	70-79	6 (55%)	00:42:55
HU1	Hungary	Professional	Woman	18-29	4 (44%)	00:49:36
HU2	Hungary	Citizen	Woman	40-49	4 (44%)	00:45:34
HU3	Hungary	Citizen	Woman	40-49	5 (56%)	00:52:21
HU4	Hungary	Professional	Man	40-49	4 (44%)	00:57:53
HU5	Hungary	Professional	Man	40-49	4 (44%)	00:53:36
HU6	Hungary	Professional	Woman	30-39	4 (44%)	00:57:06
HU7	Hungary	Professional	Man	50-59	6 (67%)	00:52:03
HU8	Hungary	Professional	Woman	40-49	4 (44%)	00:35:37
HU9	Hungary	Citizen	Man	40-49	4 (44%)	00:42:17
HU10	Hungary	Citizen	Woman	40-49	4 (44%)	00:46:50
ES1	Spain	Citizen	Man	60-69	12 (75%)	00:47:41
ES2	Spain	Professional	Woman	40-49	8 (50%)	00:29:21
ES3	Spain	Professional	Woman	50-59	11 (69%)	00:55:51
ES4	Spain	Professional	Woman	30-39	4 (25%)	00:47:56
ES5	Spain	Professional	Woman	40-49	11 (69%)	00:45:18
ES6	Spain	Citizen	Woman	60-69	2 (12.5%)	00:49:43
ES7	Spain	Citizen	Man	70-79	7 (44%)	00:30:55
ES8	Spain	Citizen	Man	80+	5 (31%)	00:46:28
ES9	Spain	Professional	Man	70-79	4 (25%)	00:39:13
ES10	Spain	Citizen	Woman	40-49	3 (19%)	00:35:01
IE1	Ireland	Citizen	Woman	70-79	4 (29%)	0:46:52
IE2	Ireland	Citizen	Woman	40-49	3 (21%)	00:54:12
IE3	Ireland	Citizen	Woman	60-69	4 (29%)	00:53:21
IE4	Ireland	Citizen	Woman	40-49	2 (14%)	00:57:33
IE5	Ireland	Professional	Woman	30-39	2 (14%)	00:58:13
IE6	Ireland	Professional	Woman	40-49	9 (64%)	00:53:34
IE7	Ireland	Professional	Man	50-59	5 (36%)	00:59:05
IE8	Ireland	Professional	Man	60-69	4 (29%)	00:54:20
IE9	Ireland	Citizen	Woman	40-49	4 (29%)	00:59:16
IE10	Ireland	Professional	Woman	40-49	8 (57%)	00:54:21



Prior to undertaking the interviews in earnest, there was a piloting phase, whereby the local partners undertook one pilot interview each. Through reporting back immediately after each interview, including with specific reflections on both the experiences and outcomes, the expectations surrounding the interviews' data collection became clearer. In particular, discussion at this moment reiterated the need for local partners to: pose follow-up questions and establish more of a two-way conversation, focused around problematisation and 'why?' questions; limit how much the interviewers talked and remember to give participants as much time and space as possible to answer their questions; ensure interviews were of the required minimum duration; and, reflect on how nervousness could be overcome. This piloting phase was therefore especially critical for certain local partners with less experience of doing semi-structured interviewing, for they were able to apply and then concretely discuss the guidance that we gave them on how to do these interviews. Indeed, all local partners attended a dedicated training session that we ran, to aid consistency of data collection across the four experiment locations, and thus this piloting process continued that skill development.

The piloting also enabled us to develop the interview protocols iteratively. It was important that our interview protocols (i.e. the guidance that the interviewers had to assist in the preparation and the on-the-day implementation of the interviews) were sensitive to the local contexts, and indeed this is why there was not one single protocol for all locations, but instead four tailored protocols that had been developed through conversations with the local partners themselves. This said, the piloting enabled further tailoring to happen concerning, for example, the boundaries between: the local partners' SHARED GREEN DEAL project work, versus the local partners' own work in the same locality often with very similar stakeholders; and similarly the participants' experiences in the SHARED GREEN DEAL Knowledge Network and their own renovation experiences that may have happened before (and/or clearly outside of) the Network's activities.

For all four protocols, the central aim remained the same though: to enable data collection on the experiences of their respective Knowledge Network's programme of activities. The protocols therefore included conversational prompts that enabled discussion around both individual and collective effects, in particular concerning knowledge and knowledge-related processes, as part of the participants' own learning journeys. Lines of questioning in the protocol therefore spanned, for instance, what knowledge they learnt (if any) and how, to the social dynamics in play during events and recommendations for the future.

1.3. Data analysis

The 40 transcripts were thematically coded by a team of five, involving a collaborative and open analytic process that centred around the development of a reference codebook. The analysis adopted an iterative approach, involving both inductive and deductive elements. Specifically, our analysis involved five phases, which we now discuss in turn.

First, Phase 1 on familiarisation and inductive scoping: the lead coder organised the data and familiarised themselves with the overall interview dataset, before coding 8 transcripts³ (2 Hungary, 2 Spain, 2 Lithuania, 2 Ireland; 4 professionals, 4 citizens; 5 women, 3 men). This coding generated 10 purely inductive thematic categories and a preliminary version of the codebook. The first coder team dialogue meeting was then conducted at the end of Phase 1, to peer review the emerging codebook and its constituent thematic categories, codes, and code descriptions. The focus of the

³ Coder 1 (lead coder) coded the following transcripts: HU1, HU2, LT1, LT3, ES1, ES2, IE1, IE7.



discussion was on how the codebook mapped onto our research questions (including our emphasis on gender) and it maintained its inductive orientation.

Second, Phase 2 on inductive codebook development: the lead coder used the wider team input in developing the codebook further, via the coding of an additional 4 transcripts⁴ (1 Hungary, 1 Spain, 1 Lithuania, 1 Ireland; 2 professionals, 2 citizens; 1 woman, 3 men). This coding was used to refine the thematic categories (producing a total of 11 new or revised categories) and to generate a more developed version of the codebook. The second coder team dialogue meeting was then conducted at the end of Phase 2, to peer review the codebook. The focus of the discussion was on defining scopes and boundaries of categories, and adding additional codes to reflect our research priorities; it differed from the first dialogue meeting in that insights and inspirations were integrated from the research literature, and thus it was not solely inductive.

Third, *Phase 3 on codebook enhancement and testing*: all members of the coding team, including the lead coder, coded an additional four transcripts⁵ (1 Hungary, 1 Spain, 1 Lithuania, 1 Ireland; 2 professionals, 2 citizens; 2 women, 2 men). A third coder team dialogue meeting then used coded excerpts of the same data to spark inter-coder reflections on both the process of coding and codebook improvements. In particular, there was discussion on: whether the contents of 'other' codes should be developed into new codes; whether certain codes had less attention because coders were not sufficiently sensitised to their foci, or because there was not relevant data to be coded; how to define and code aspects of expertise; when and how to consider systemic descriptions as relevant contexts or active influences; and the use of coding memos. The outcome was a final codebook (1 thematic categories, with 76 codes) that had been collaboratively developed and agreed across the coding team, and with which all coders were deeply familiar.

Fourth, Phase 4 on deductive coding: the four non-lead coders deductively coded the remaining 24 transcripts⁶, with the support and mentorship of the lead coder as a reference point, as appropriate. The codes were allocated on the basis of each coder's familiarity with the relevant empirical contexts, given that the coders were also acting as mentors on the implementation of the experiments and also in interview piloting and data collection. Whilst the codebook was not under development during this phase, we still remained open to insights outside of the agreed coding framework through use of 'Other' codes within every category, and through ongoing conversations to clarify scopes and definitions. Whilst doing this deductive coding, all four coders recorded coding memos in a centralised virtual working space, to enable ongoing communication and recordkeeping on code interpretations.

Finally, Phase 5 on final interpretation and prioritisation: whilst the codebook framework that had been developed in the previous phases had provided a clear framework of codes and categories to drive the analysis, the interpretation and narration of the evidence collated in these codes had not yet been fully established. As such, this fifth phase focused on further organisation of our arguments and overall synthesis of our findings, en route to writing up our final outputs. To spark inspiration, we essentially reflected on questions such as: what does the data in this code really represent? Why does this matter? What do we want to convey to our prospective readers? To aid this process of interpretation and prioritisation, we re-engaged our four-person Advisory Board⁷ and our four

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<sup>4</sup> Coder 1 (lead coder) coded the following transcripts: HU9, IE8, ES9, LT10.

<sup>5</sup> All five coders coded the following transcripts: HU7; LT9; ES6; IE9.

<sup>6</sup> Selected transcripts: Coder 2 on LT2, LT4, LT5, LT6, LT7, LT8; Coder 3 on ES3, ES4, ES5, ES7, ES8, ES10; Coder 4 on HU3, HU4, HU5, HU6, HU8, HU10; and Coder 5 on IE2, IE3, IE4, IE5, IE6, IE10.

<sup>7</sup> Our Advisory Board was made up of four European experts on matters on energy efficient renovations. Two Advisory Board members were in researcher roles (one in industry, one in academia), with the other two members involved in the day-to-day delivery of energy efficient renovations (one in local government, one in a non-governmental organisation). One was a woman; three were men. Members spanned Spain, Serbia, Germany and France, although all had international (in addition to local) responsibilities and professional interests.



local partner organisations (who ran the experiments and did the interviews). In particular, these engagements re-sensitised us to local contexts and needs from the practitioner perspectives.

Across these five phases, we rejected Positivist ideals relating to inter-coder reliability. As O'Connor and Joffe (2020, p.4, emphasis added), put it, "[w]ithin this epistemological framework, researcher reflexivity and active personal engagement with the data are *resources*, not "noise" to be minimized". As such, we specifically sought a shared, collaborative learning journey amongst the coders, which embraced subjectivities and encouraged both individual and collective reflexivity (with coders actively discussing and checking how they and others were interpreting codes). Therefore, throughout the above phases, the coding team did not pursue notions of e.g. objectivity, neutrality, replicability across the coders. Instead, we recognised that having a coding team (rather than a single individual coder) helped expose the codebook development process to a range of interpretations and perspectives, including different experiences with the empirical context, which we assert only contributed to richer outcomes. Indeed, our cross-coder dialogue around the data and the emergent codes enabled leaps forward in the codebook development, as well as ensured a deeper familiarity with the data and coding framework when moving into the post-analysis stages of thematic prioritisation and academic dissemination.

At each phase of coding, we carefully selected cross-sections of the participant sample for inclusion. We recognise that knowledge is experiential, and structured by individuals' socio-demographic positions, and so we wanted our coding framework to include balanced exposure to different individual experiences of Network participation specifically and energy efficient renovation more generally. For example, when selecting transcripts in phases 1, 2 and 3, we aimed to include citizens at different stages of the renovation planning-implementing process; and also ensured that we included both men and women professionals, and both men and women citizens (as well as achieving an overall gender-balance).





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