HOUSEINC

Affordable, sustainable and inclusive housing for marginalised communities

Capacity-building toolkit for addressing housing inequalities

January 2026

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About

The objective of HouseInc is to apply innovative methodology to deeply analyse interlinked dimensions of housing inequalities in the context of marginalized communities.

HouseInc will empirically examine economic, social and ecological drivers and assess impacts of various indicators on housing inequality to derive policy recommendations that foster the adoption of effective measures addressing housing inequality across Europe. With a transdisciplinary dialogue, the project develops innovative social, financial and digital solutions that can be up scaled and thus, contribute to a better socio-economic and sustainable integration of vulnerable groups in European societies.

HouseInc takes a systemic view and assesses interlinkages of housing inequalities - emphasizing energy and mobility poverty, digital dimensions, employment opportunities, family and socio-demographic conditions, energy-efficiency, and health - on a micro-, meso- and macro-level. The interdisciplinary HouseInc consortium - consisting of research institutes and universities, policy think tanks, NGOs, and practitioners on the ground - involves case studies to engage directly with members of four marginalized communities in or from Eastern Europe.

Besides a mix-method approach, including modelling and a GIS-based analysis depicting geographical and future housing inequality, we implement a multinational survey to better understand housing inequality in light of recent events such as COVID-19 and Russia's invasion in the Ukraine. The research results will be assessed, mapped, and scaled up using Living Labs and various stakeholder engagement activities to provide innovative solutions addressing housing inequalities and translating them into valid local, regional, national and EU policy recommendations impacting EU and national funding programs and providing a comprehensive overview and guidance for policymakers to mitigate housing inequalities.

Project partners

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Executive Summary

This deliverable translates HouseInc's analytical insights on housing inequalities into a practical **capacity-building roadmap** for practitioners. It reviews the most recent literature on capacity building for the public sectors, advancing it to define a coherent framework for the definition of a capacity building programme in the realm of housing vulnerability. It also draws knowledge from the ongoing results produced by the HouseInc project, concerning mainly the analysis of the drivers, factors, and manifestations of housing inequality.

The Capacity Building Toolkit is the output of the report, aimed at translating operational key aspects of housing inequalities. The document's aim is:

- to provide a synthetic background on housing inequalities drivers and manifestations, as identified within the HouseInc projects;
- to identify some guiding questions, instruments and tools to support stakeholders and policy makers in their journey to work with communities exposed to housing inequalities manifestations.

It introduces five diagnostic building blocks and operationalises them through Living Labs as the preferred, but adaptable, setting for joint analysis and co-design. The deliverable then introduces a three-level progression model of analytical capacity (Recognition, Integration, Amplification) and links each level to concrete learning objectives and Living Lab activities. A practical **roadmap** guides practitioners through three phases: understanding the local context and structural constraints; identifying which capacity level to prioritise; and running, monitoring, and sensemaking of activities using tested tools, templates and driver factsheets. The toolkit is designed to be transferable across European contexts but explicitly requires adaptation of stakeholder composition, focus, and intensity to local conditions.

The document presents a toolkit of methods, templates and canvases, and tests them in two pilot sites (Dârvari and Vogelstang) to show how context, stakeholders, and structural constraints shape outcomes. It then proposes a transferability framework that distinguishes what can be replicated across contexts (core methodology, tools, principles) and what must be adapted (stakeholder mix, focus, timeline, institutional entry points), supporting realistic scaling of housing-inequality capacity-building programmes.

The toolkit is designed as a transferable yet context-sensitive framework, enabling local and regional authorities to adapt HouseInc evidence-based approaches to their specific institutional, social and territorial conditions.

1 INTRODUCTION

The *Capacity Building Toolkit* is a resource aimed at translating some crucial aspects of housing inequalities in an operational way. The document's aim is twofold: to provide a concise background on housing inequalities drivers and manifestations, as identified within the HouseInc projects, and identify some guiding questions, instruments and tools to support stakeholders and policy makers in their journey to work with communities exposed to housing inequalities manifestations.
Within the context of this document and the HouseInc project, building capacity means supporting **housing practitioners** in understanding drivers, manifestations and impacts of housing inequalities within their context, through the understanding of the multi-layered nature and complexity of the topic, using data and infographics, but also the contextual and proximity experience of each practitioner on their territory. As a result, the toolkit is conceived as a collection of supporting elements that should be tailored to the specificities of each case. Therefore, the toolkit is designed to translate conceptual frameworks and project outcomes into actionable approaches aimed at fostering learning and replication within different local contexts.

The document starts from both a conceptual review on capacity building and from the preliminary results of HouseInc, from which it develops a capacity building framework, its attached toolkit to be implemented and is verified on the direct experience on two pilot workshops in two case studies: Dărvari (Romania) and Vogelstang (Mannheim) in Germany.

The primary audience includes local authorities, policymakers, housing associations, and organisations involved in activities related to housing equality policy creation and engagement activities with communities exposed to housing inequalities. In particular, the deliverable programme will support the design and implementation of Living Labs activities and other participatory initiatives within the housing inequalities topic. Secondary users may include researchers, NGOs and operators interested in strategies to reduce housing inequalities through collaborative, evidence-based methods.
The toolkit can be used at different stages of the policy cycle:

- problem identification and diagnosis, by supporting evidence-based understanding of housing inequalities;
- policy design, through participatory and co-design tools;
- implementation and coordination, by strengthening inter-institutional and multi-stakeholder capacities;
- monitoring and learning, by fostering reflective and adaptive governance practices.

The deliverable is organised into two sections:

1. The first one provides key insights about housing inequalities drivers and manifestations, starting from already developed project outcomes. This section aims to remark the main results from the project that can already inform or inspire solution development. It builds on selected tasks and deliverables identified as particularly relevant for the analysis of housing inequalities, with contributions and validation from project partners and on case study-related activities. In particular,

this section aims to provide concise fact sheets on housing inequality drivers (from T5.1) as a starting point for the operational part of the toolkit. For each driver, a short factsheet presents the main challenge, key facts, and preliminary practice-oriented recommendations.

2. The second part constitutes the operative section of the toolkit. It includes a step-based approach to support practitioners and policy makers (e.g. use modalities, formats, and application contexts) to better identify the most suitable tools and instruments to be used in each specific community and some guiding questions to support the building of Living Labs or other participatory initiatives. This toolkit links the conceptual background of chapter 3 to the Living Lab methodology proposed for the empirical part of the project. The toolkit section is refined based on the first experimentation of the Living Lab Launch workshops in the project case studies.

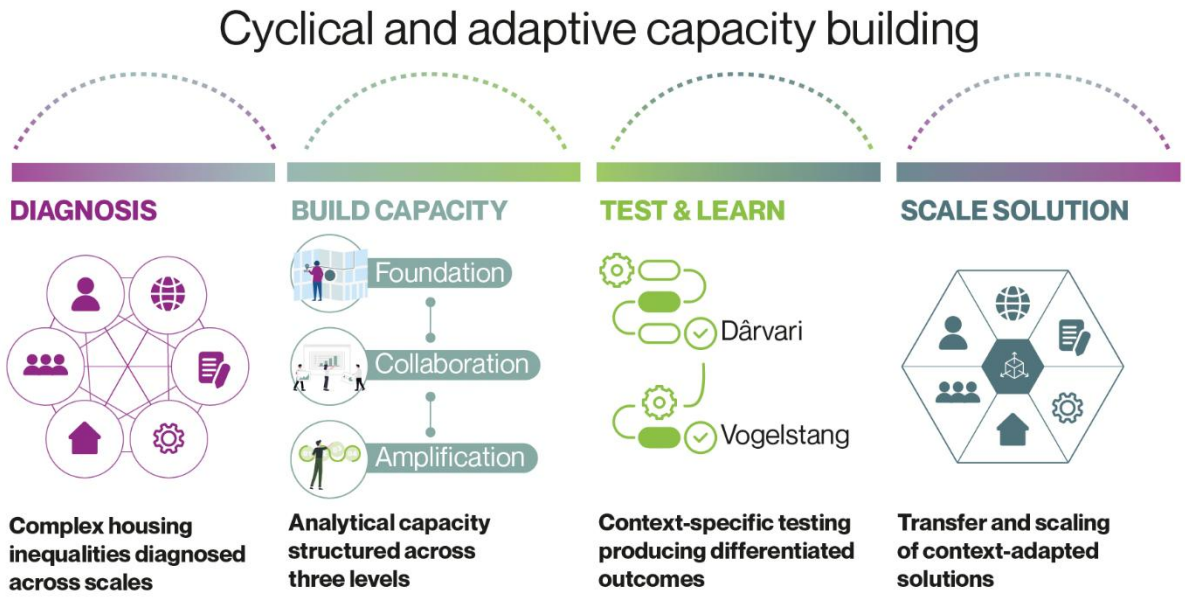

Figure 1 - scheme of the capacity building toolkit deliverable

2 CAPACITY BUILDING: CONCEPT, METHODOLOGY AND STATE OF THE ART

Capacity Building is a commonly investigated topic in literature, especially considering its relevance in supporting the solutions of systemic and multi-layered challenges.
This section establishes the conceptual foundation for the HouseInc capacity-building framework, tracing the evolution from traditional capacity-building approaches characterized by technical skills transfer and pre-designed solutions, toward **diagnostic capacity building**: an evidence-informed, justice-grounded approach that enables practitioners to have an evidence-informed picture of the housing systems by recognizing structural drivers of inequality.
The chapter progresses through three interconnected movements:

- section 2.1: Critique of Traditional Approaches, identifies why conventional capacity building fails for complex challenges, distinguishes wicked problems from technical problems, and defines the diagnostic capability required for housing inequality.
- Section 2.2: Methodological Panorama examines seven analytical approaches (PAR, Systems Thinking, Reflective Practice, Design Thinking, Open Innovation, Collective Intelligence, Data Literacy) that contribute distinct insights for understanding complex challenges.
- Section 2.3: Core Competencies Framework. synthesizes these methodologies into six core competencies practitioners must develop for diagnostic capacity building.
- Section 2.4: Diagnostic Capacity as Foundation for Housing Justice integrates justice frameworks and shows how diagnostic capacity becomes vehicle for housing justice-oriented change.

This section identifies key trends and operative approaches in public/institutional capacity building, with specific focus on analytical approaches as a promising framework for addressing housing inequality. The analysis proceeds from foundational concepts through evolving methodologies toward a coherent approach tailored to the HouseInc project context.

2.1 BUILDING ANALYTICAL CAPACITY FOR HOUSING INEQUALITIES CHALLENGES

Capacity building includes a broad range of interventions aimed at strengthening the ability of individuals, organizations, and systems to perform effectively. Traditional definitions (Cohen, 1995) emphasize skills development, institutional strengthening, and transfer of (technical) knowledge to enhance performance in specific domains. Standard approaches have typically included technical training programs, technology transfer initiatives, and implementation of pre-designed solutions developed in other contexts. Practical examples of traditional capacity building include for example training civil servants in new regulatory frameworks, introducing software systems for administrative management or deploying standardized thematic quality assessment protocols.
While these interventions were widely diffused in domains characterized by clear technical specifications and linear problem structures, their application to complex challenges has revealed significant limitations (Woodhill, 2010). Implementing housing affordability programs through standardized toolkits, context-blind technology-transfer initiatives for

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sustainable building standards, climate adaptation programs that focus narrowly on technical skill upgrading, can produce knowledge that remains unused or weak outcomes.

Capacity building is traditionally understood as transferring technical skills and implementing pre-designed solutions, but conventional approaches have proven insufficient for addressing the complexity inherent in contemporary housing challenges.

Capacity-building for the public sector, in contemporary societal challenges (climate change, hazards, environmental and health vulnerability, housing crisis) has followed several evolutions. Traditional models, which emphasized translating and transferring technical skills through sporadic training and technology transfer initiatives, operated on the assumption that context-independent solutions could be adapted across different settings, failing in complex problem domains (Bremer, 1984; Robins, 2008).
Hatcheu (Hatcheu, 2017) critically examines knowledge transfer mechanisms for capacity building revealing that conventional approaches emphasizing **sporadic training, technical assistance, and technology transfer** without contextual adaptation have proven insufficient. Literature demonstrates that capacity building conceived primarily **as skills upgrading and managerial procedural improvements** fails to address the institutional, political, social and cultural dimensions that determine whether transferred knowledge becomes embedded in practice (Borghi, 2018).
As a consequence, inadequately delivered assistance can displace and even erode capabilities. Andrews and colleagues (Andrews et al., 2013) introduce the concept of "capability traps" as cycles where governments repeatedly adopt reforms to ensure ongoing flows of external financing and legitimacy without achieving tangible improvements in public institution capability. Their framework emerged from observing that many development reforms fail when governments implement superficial changes that mimic the form of effective institutions as "best practices" without developing their function, ignoring local political economy, cultural contexts, and the adaptive learning required for genuine institutional change and innovation. Beyond capacity as skills or managerial procedures, contemporary organizational studies emphasize that genuine institutional change and innovation development requires organizational learning, a reflexive process and a generative interaction between forms of knowledge and knowing, in which experiential, usable knowledge is actively co-produced through networks incorporating stakeholders and community members (Jilke et al., 2016).
Research on policy innovation further demonstrates **how underdeveloped institutional coordination** capacity hinders intentional policy transformation (Adams, 2004). Fragmented governance structures, siloed structures, make it difficult to manage multidimensional "wicked problems" that cross traditional departmental boundaries (Lönngren & Van Poeck, 2021; Skaburskis, 2008). Capacity building initiatives that focus on individual rather than collective agency or discrete skills fail to address these systemic coordination failures. As a result, modest problem detection and interpretation, lack of resources, siloed thinking are hence some of the multiple reasons for the failure of municipal capacity-building programs.

2.1.1 SHIFT FROM TRADITIONAL CAPACITY BUILDING TO DIAGNOSTIC CAPABILITY

The shift from traditional capacity building to diagnostic capability emerged from the recognition that contemporary societal challenges are not linear technical problems with clear definitions and predetermined solutions, but **wicked problems** characterized by deep uncertainty, multiple stakeholder perspectives, contested values, and emergent outcomes. Wicked societal challenges therefore require collaborative governance, stakeholder engagement, adaptive management, and tolerance for ambiguity, as well as context-driven approaches (Sengupta et al., 2016). The recognition of wicked problem complexity catalysed a shift toward **problem-led approaches** that prioritize institutional innovation (Woodhill, 2010) through their **diagnostic analytical capability**, i.e. the ability to recognize and understand the multi-level of system interrelation of societal phenomena before designing interventions.
Table 1 illustrates how these characteristics demand fundamentally different capacity-building approaches:

Table 1 - distinction between linear and wicked problems in capacity building

Characteristic	Linear Problem	Wicked Problem (Housing Inequality)	Capacity Building
Problem definition	Clear, universally accepted	Contested, multiple valid interpretations	Capacity must include problem-framing, not just solution-finding
Uncertainty	Known unknowns; manageable risk	Deep uncertainty; unknown unknowns	Capacity requires adaptive management, tolerance for ambiguity
Stakeholder alignment	Relatively homogeneous; shared objectives	Multiple stakeholders with competing interests	Capacity requires negotiation, collaborative governance, power analysis
Solutions	Designed solutions that "work" once deployed	Solutions generate new problems; ongoing adaptation necessary	Capacity requires reflexive practice, continuous improvement, sensemaking
Timing	Discrete project cycles	Extended timeframes with emergent outcomes	Capacity requires long-term institutional commitment

The move from traditional to diagnostic approaches entails three fundamental shifts.
The first one, from skills transfer to collaborative problem-framing. This approach prioritizes **problem-led approaches** where diverse stakeholders collaboratively define problems through evidence and dialogue before designing interventions.

The second entails a movement from individual to **relational institutional capacity**.
Traditional capacity building focused on individual participant skill development, assuming organizational change would follow. Diagnostic capacity building recognizes that housing inequality requires coordinated action across institutional boundaries (municipal departments, NGOs, community organizations, property owners, energy companies). This requires developing **relational institutional capacity**: the presence of reciprocity and

shared understanding distributed across networks of stakeholders. Rather than expecting individual learning to automatically produce institutional coordination, diagnostic capacity building explicitly builds relationships, trust, and shared problem-definition across organizations.

The final shift is from evidence-based to evidence-informed policymaking. The literature distinguishes between two contrasting approaches to evidence use in policymaking: "evidence-based" (Faludi & Waterhout, 2006; Krizek et al., 2009) and "evidence-informed" (Head, 2016). Evidence-based approaches assume rational, technical policymaking where research findings directly determine optimal solutions. Critics argue this model denies that policy is fundamentally normative, involving value judgments about how societies should function. Policy decisions ultimately rest on normative questions (e.g. who deserves housing, how resources should be allocated) that evidence alone cannot settle. Evidence-informed policymaking on the other hand, offers an alternative framework recognizing that evidence is one input among many, including political feasibility, public values, resource constraints, and implementation capacity (Boaz & Davies, 2019).
The OECD's framework for building evidence-informed policymaking capacity (OECD, 2020) identifies core competencies in **understanding, obtaining, assessing, using, applying evidence** and e**ngaging stakeholders**.

Table 2 - evidence-based vs evidence-informed frameworks

Evidence-Based	Evidence-Informed
Assumes rational policymaking where research findings directly determine optimal solutions	Recognizes evidence as one input among political feasibility, public values, resource constraints, implementation capacity
Denies normative dimensions of policy work	Acknowledges policy fundamentally involves normative questions (who deserves housing? how should resources be allocated?)
Assumes neutrality; technical expertise determines best policy	Acknowledges values and power; uses evidence to clarify trade-offs, not to eliminate politics
Risks technocratic decisions divorced from democratic deliberation	Enables deliberative democracy where evidence informs but doesn't determine decisions

These three shifts, from skills transfer to collaborative problem-framing, from individual to relational capacity, from evidence-based to evidence-informed policymaking, signal that diagnostic capacity building must simultaneously address: **individual competencies**, practitioners' abilities to analyze evidence and think systemically; **organizational structures** and processes, institutions' capacity to integrate evidence into decision-making, coordinate across silos; and **systemic coherence**, policy frameworks and governance arrangements enabling collaborative approaches to multidimensional problems Housing inequality requires change at all three levels. Training individuals in data analysis (individual level) fails if their organizations lack coordination mechanisms (organizational level) or if policies perpetuate contradictory incentives (systemic level). Effective diagnostic capacity building addresses all three simultaneously.

2.1.2 DIAGNOSTIC CAPABILITY: DEFINITION AND CORE ELEMENTS

Diagnostic capability is the foundational organizational and individual capacity to structure unclear situations into actionable understanding, to move from vague problem detection ("housing crisis") toward precise diagnosis ("low-income elderly renters in pre-1980 buildings face energy poverty driven by inefficient building stock, rising energy prices, and fixed pension incomes, requiring coordinated retrofit subsidies, energy price regulation, and income support").
Diagnostic capability requires two interconnected competencies:

- **Sensemaking**: the organizational capacity to structure unclear situations into actionable understanding. When policies lack explicit implementation instructions, actors must collectively construct meaning through social processes. Sensemaking occurs when a flow of organizational circumstances is turned into words and salient categories, requiring communication and retrospective interpretation that makes experience meaningful (Weick, 2012). Without sensemaking capacity, transferred technical knowledge leaves implementers unable to adapt frameworks to specific contexts, resulting in rigid application of inappropriate solutions (Helms Mills et al., 2010).
- **Diagnostic Literacy**: a foundational capacity enabling policymakers and stakeholders to move from vague problem detection ("housing crisis") to precise diagnosis ("low-income elderly renters in pre-1980 buildings face energy poverty driven by inefficient building stock, rising energy prices, and fixed pension incomes, requiring coordinated retrofit subsidies, energy price regulation, and income support"). Diagnostic literacy requires understanding who needs what information, how and when to establish connections among variables, and through which means.

Together, sensemaking and diagnostic literacy enable practitioners to structure unclear situations into actionable understanding grounded in evidence.

> Understanding housing inequality requires moving beyond linear thinking toward recognising cities, territories and their housing markets as complex adaptive systems where multiple actors interact to generate emergent, composite patterns.

Housing inequality studies fall within the variety of complex and wicked problems characterized by deep uncertainty, multiple stakeholders with competing interests, outcomes that unfold over extended timeframes, and unpredictable outcomes. Therefore, they require adaptive institutional capacity developing diagnostic capabilities adjusted not only to what problems exist, but to how stakeholders differently experience and interpret housing challenges, where power asymmetries shape problem definition, which emergent solutions might arise through deliberative stakeholder engagement.

2.2 OVERVIEW OF ANALYTICAL CAPACITY BUILDING METHODOLOGIES

Effective capacity building for housing inequality draws on multiple complementary methodologies, each contributing distinct insights for understanding complex societal

challenges. This section will present such distinct models and will discuss potential insights on their implementation for the project. Each methodology is examined through the lens of complexity theory, exploring how it addresses the non-linear dynamics, feedback loops, path dependencies, and emergent properties characteristic of housing systems.

2.2.1 PARTICIPATORY ACTION RESEARCH (PAR)

PAR positions communities as active knowledge producers rather than passive research subjects. It recognizes that those most affected by problems possess unique expertise from lived experience, knowledge that academic or technical knowledge cannot replace. PAR creates iterative cycles where stakeholders collectively identify problems, gather data, analyze findings, act, reflect on outcomes, and adjust learning-based strategies.
PAR acknowledges that complex systems are best understood from multiple perspectives, no single viewpoint captures full dynamics. PAR's iterative cycles enable adaptive learning as systems respond to interventions in ways often unexpected from the initial analysis, allowing strategies to evolve with emerging evidence of effectiveness and unintended consequences.

2.2.2 SYSTEMS THINKING

Systems thinking provides tools for understanding complex interdependencies, feedback loops, and non-linear dynamics. Causal loop diagrams (CLDs) visualize feedback relationships, distinguishing reinforcing loops (where changes amplify over time) from balancing loops (where changes stabilize). By making system structures visible, CLDs enable stakeholders to identify leverage points where interventions can shift overall system behaviour. Rather than addressing isolated problems, systems thinking directs focus toward the underlying structural patterns and feedback loops generating problematic outcomes. For example, it can reveal how restrictive zoning regulations combined with financing barriers and construction capacity constraints to create self-reinforcing cycles of housing scarcity. Systems thinking encourages the capacity to recognize emergence, feedback dynamics, and interdependencies, essential for navigating complex housing systems where interventions in one domain (e.g., rent regulation) generate cascade effects across others (e.g., investment incentives, maintenance decisions, labour supply).

2.2.3 REFLECTIVE PRACTICE AND ACTION LEARNING

Reflective practice, drawing on Donald Schön's concept of the "reflective practitioner," (Schön, 2017) emphasizes learning from experience through systematic reflection. Professionals and community members engage in cycles of action and reflection, examining assumptions, analyzing outcomes, adjusting strategies. This recognizes complex problems require ongoing learning and adaptation. Action learning extends reflective practice to group settings where participants work on real problems while learning from experience. Groups meet regularly to present challenges, receive peer feedback, develop action plans, implement, and reflect on results. This social learning process builds individual and collective capacity while addressing practical problems.
Reflective practice cultivates the adaptive capacity, the ability to learn from feedback and adjust strategies as systems respond unexpectedly. In unpredictable, dynamic environments, this capacity is more valuable than standardized or static protocols.

2.2.4 DESIGN THINKING

Design thinking is a human-centered approach to innovation that emphasizes empathy, ideation, experimentation, and iteration. It typically involves empathization (understand users' needs and experiences), definition (articulate the problem), ideation (generate diverse solution ideas), prototyping (create low-fidelity versions of solutions), test (gather feedback), iteration (refine based on learning).
Rapid prototyping (creating quick, low-cost versions of interventions to test core concepts before major investment) aligns well with complexity principles. In unpredictable environments, prototyping enables learning about system responses to interventions, discovering unintended consequences, and adapting before committing major resources.

2.2.5 OPEN INNOVATION

Chesbrough's open innovation paradigm (Chesbrough et al., 2006) challenges the "closed innovation" traditional model where organizations rely only on internal research and development. Open innovation deliberately integrates external knowledge flows, inbound flows bringing external ideas into the organization and outbound flows commercializing internal ideas externally. For capacity building, open innovation approaches involve systematically incorporating knowledge from practitioners, community organizations, technology providers, and research institutions. This is particularly valuable for housing challenges that require integrating diverse expertise: planners, engineers, social workers, community organizers, and affected residents possessing insights essential for effective policy and practice. Open innovation structures can facilitate cross-sector learning and accelerate adoption of promising practices without requiring internal development of all solutions.

2.2.6 COLLECTIVE INTELLIGENCE

Collective intelligence (CI) leverages the combined capacity of diverse groups to solve shared problems that exceed individual expertise. Mulgan's work at the UCL Collective Intelligence Lab distinguishes collective intelligence from aggregated individual intelligence (Mulgan, 2006): CI emerges from interaction among diverse perspectives and knowledge domains, not from simple summation of individual contributions. In housing contexts, collective intelligence approaches can bring together people with diverse backgrounds, expertise, and stakes in housing outcomes to develop shared understanding of problems and co-create solutions. Collective intelligence processes acknowledge that specific challenges require integration of technical knowledge with practical implementation experience and lived expertise.

2.2.7 DATA LITERACY

Data literacy is an organizational competence extending beyond individual data analysis skills (Wolff et al., 2016), it encompasses six dimensions: data quality (understanding limitations and reliability), data understanding (interpreting findings appropriately), data accessibility (ensuring relevant data is available), data application (using data for decision-making), data ethics (addressing privacy and justice concerns) and data culture

(institutionalizing data-informed practices). Organizational data literacy focuses on institutional capacity to generate, access, evaluate, and use data for decision-making while maintaining ethical standards and acknowledging data limitations. For housing organizations, developing data literacy is essential for moving beyond anecdotal/standard understanding toward evidence-informed practice while maintaining critical awareness of how data can obscure or misrepresent housing realities affecting vulnerable populations.

2.3 SYNTHESIZING METHODOLOGICAL INSIGHTS: CORE COMPETENCIES FOR DIAGNOSTIC CAPACITY BUILDING

The methodologies reviewed above each contribute distinct capabilities. Effective housing inequality capacity building requires **integration across methodologies** while developing different core competencies: participatory methods ensure affected communities shape diagnosis and solutions; systems thinking reveals structural drivers rather than symptoms; reflective practice and action learning institutionalize continuous improvement through learning and adaptation; design thinking maintains the focus on user needs and iterative testing; data literacy ensures evidence use is rigorous and ethically grounded; finally, collective intelligence processes leverage diversity in local, usable knowledge. Such integration requires that capacity building programs are designed as adaptive systems themselves, capable of learning, evolving, and improving through implementation.

Table 3 - competency integration framework

Competency	Definition	Supporting methodologies	Housing inequality application
Evidence Quality Assessment	Critically evaluate diverse evidence forms; recognize limitations, biases, gaps	Data literacy, reflective practice, design thinking	Distinguishing between causal evidence (retrofit subsidy > energy poverty reduction) and correlational evidence (energy-efficient buildings ≠ low energy poverty)
Data Access	Locate, obtain, and organize diverse data sources appropriate to complexity	Open innovation, collective intelligence, data literacy	Integrating census data + administrative utility records + qualitative interviews + GIS analysis + lived experience into coherent dataset
Multi-Source Evidence Synthesis	Integrate quantitative, qualitative, spatial, and experiential evidence into coherent understanding	Systems thinking, PAR, collective intelligence	Combining income statistics + building performance data + resident accounts to diagnose housing inequality as multi-dimensional problem
Stakeholder Engagement	Facilitate evidence interpretation across diverse perspectives; build shared understanding	PAR, collective intelligence, design thinking	Creating spaces where officials' regulatory understanding + residents' lived experience + NGO expertise produce richer diagnosis
Systemic Analysis	Recognize multi-scalar drivers; map causal	Systems thinking,	Understanding that energy poverty results from: building-level

	pathways; distinguish structural from modifiable factors	reflective practice	inefficiency + national energy prices + household income + tenure precarity; each requiring different intervention level
Iterative Learning	Institutionalize continuous improvement; learn from implementation; adjust strategies based on feedback	Reflective practice, action learning, design thinking	Monitoring housing policy effects; recognizing when policy combination generates unintended consequences; adjusting in real time

These six competencies work together to develop diagnostic capacity. Practitioners and organizations develop these competencies by:

- Critically evaluating diverse evidence forms (quantitative, qualitative, spatial, experiential) while recognizing limitations and potential biases
- Locating and accessing relevant data sources (census records, administrative data, spatial datasets, qualitative interviews) appropriate to housing system complexity
- Interrogating evidence quality through critical appraisal and bias recognition
- Synthesizing multi-source evidence into coherent understanding
- Engaging stakeholders in evidence interpretation through dialogue across diverse perspectives
- Evaluating analytical processes and outcomes for continuous improvement

2.3.1 DIAGNOSTIC CAPACITY AS FOUNDATION FOR HOUSING JUSTICE

The implications of an **analytical/diagnostic approach towards evidence-informed policymaking for housing policy capacity building** can be examined on two levels.
First, diagnostic approaches can enable deeper understanding of contextualized dynamics and systemic interrelationships, understanding individuals and communities not as isolated cases but as embedded within broader systems of housing provision, tenure regulation, land markets, financing mechanisms, and social/cultural networks. This systemic understanding allows policymakers to anticipate unintended consequences before they manifest, to be ready and prepared when unintended circumstances occur (or emergent crises manifest), and to adapt strategies iteratively by coordinating across organizations and sectors.
Second, a diagnostic approach can integrate justice frameworks, grounded in HouseInc's vulnerability conceptualization (D2.2), providing structured pathways to understand how current arrangements perpetuate deprivation and inequality.
HouseInc conceptual framework, goes beyond vague definitions of vulnerability as "state of being at risk" by operationalizing it through three interdependent diagnostic dimensions that work together to reveal how communities experience housing challenges. **Exposure**, describes what external stressors or environmental changes a population can encounter (energy price shocks, policy shifts, labour market changes, climate hazards, and geographic location); **sensitivity** captures how responsive or affected a population becomes when exposed to stressors such as income level, household composition, building quality, and tenure type all determine whether identical stressors produce uniform impacts or amplified effects for some groups; **adaptive capacity** encompasses what resources and structures

enable or prevent communities from responding to stressors, through two levels: individual and household resources vs structural resources.
This framework can highlight specific exposure-sensitivity-adaptive capacity combinations operating in practitioners' context.
Within this framework, diagnostic capacity is developed when practitioners learn to apply specific justice dimensions directly applicable to housing vulnerability analysis, providing structured and situated pathways to understand how current arrangements perpetuate deprivation and inequality. A multidimensional diagnostic approach to housing capacity building can then incorporate understanding of power dynamics, tracing systemic roots in policy frameworks, market structures, and discriminatory practices that benefit some groups at expense of others and identifying structural inequities.
This combination allows to draw richer implications for housing analysis discussions as it links to structural at-risk factors in society and indicates what housing policy direction is needed to reducing injustice and for enlarging capabilities and real opportunities of people affected by inequalities.
In this scenario, HouseInc aims not merely at building capacity as a technical outcome but at supporting transformative change toward housing justice. This means recognizing capacity building as political work, shifting power relations, challenging unjust structures, amplifying marginalized voices, demanding systemic change (Healey, 1998). It requires developing the relational institutional capacity introduced earlier: the reciprocity and shared understanding distributed across networks of stakeholders necessary for coordinated housing justice action.
This approach provides a shift from merely documenting manifestations (what inequality looks like) or quickly defining solutions, to analysing, sharing responsibilities and addressing drivers (why inequality persists) and outcomes (long-term impacts).

> Diagnostic capacity represents a shift from traditional capacity building to evidence-informed policymaking grounded in justice framework, fostering the ability to understand housing systems, synthesize evidence and recognise structural drivers of inequality.

This requires recognizing capacity building as an inherently political process: one that shifts power relations, challenges unjust structures, amplifies marginalized voices, and demands systemic change. Capacity building from this perspective moves beyond improving technical competencies, but it becomes a vehicle for institutional and social transformation.

Analytical capacity building for housing inequality must address organizational, individual and systemic dimensions simultaneously. Organizational capacity requires institutional strengthening, by developing structures, processes, and resources enabling evidence use in decision-making. Individual capacity requires skills development in analysis, facilitation, critical thinking, responsibility development and adaptive management. Systemic capacity requires attention to policy coherence and institutional coordination enabling collaborative approaches to multidimensional problems.

Effective analytical housing capacity building integrates multiple analytical methodologies and develops core competencies in evidence synthesis, stakeholder engagement and systemic analysis. It requires simultaneous attention to organizational structures, human skills and policy coherence while maintaining focus on understanding mechanisms driving inequality rather than merely documenting its manifestations

In summary, diagnostic capacity, grounded in **evidence-informed policymaking, integrated methodologies, justice frameworks, and simultaneous attention to individual, organizational, and systemic dimensions,** provides a coherent foundation for transformative capacity building toward housing justice. The following sections operationalize this framework through specific roadmaps and implementation strategies tailored to HouseInc project contexts. The following chapters operationalize these principles through specific diagnostic frameworks (Chap. 3), implementation strategies and roadmaps (Chap. 4), and practical tools (Chap. 5-6).

3 OPERATIONALIZING DIAGNOSTIC CAPACITY: LEARNING FROM THE HOUSEINC PROJECT

This chapter operationalizes the **diagnostic capacity framework** developed in Chapter 2 through the empirical findings of the HouseInc project. By analyzing housing inequality across four European case studies (Roma communities in Czech Republic and Romania, Ukrainian refugees in Italy, and migrants from Eastern Europe in Germany) HouseInc's research advances three research questions:

- What does diagnostic capacity look like in practice when practitioners confront housing inequality in specific communities?
- How do the six core competencies (evidence quality assessment, data access, multi-source synthesis, stakeholder engagement, systemic analysis, and iterative learning) manifest in real policy and practice contexts?
- What institutional, individual, and systemic barriers prevent diagnostic capacity building, and how can they be overcome?

This chapter illustrates these competencies through HouseInc's concrete research findings, showing how diagnostic capacity enables practitioners to move from traditional problem-solving toward evidence-informed, justice-grounded analysis of housing inequality.

This work aims at building meaningful bridges throughout the project and to sustain further the HouseInc capacity building approach by valorizing the project conceptual framework. Five analytical building blocks (multi-dimensional diagnostic frameworks, data governance literacy, granular measurement techniques, scale-appropriate governance matching and stakeholder power analysis) constitute the foundational competencies for housing inequality diagnosis derived from the results of the project so far.
Practitioners integrating these competencies can gain the capacity to move from vague problem recognition (e.g. "housing is unaffordable") toward precise, evidence-informed diagnosis (e.g. "low-income elderly renters in pre-1980 buildings face energy poverty driven by inefficient building stock [building-level], rising energy prices [national-level], and fixed pension incomes [household-level], requiring coordinated retrofit subsidies, energy price regulation, and income support"). This diagnostic skill is the prerequisite for effective solution co-design.

3.1 BUILDING BLOCKS FOR DIAGNOSTIC PRACTICE

Based on the comparative analysis and empirical evidence generated by HouseInc, five analytical building blocks were identified as essential for strengthening diagnostic capacity in the field of housing inequalities.
These building blocks represent recurring needs observed across the project's case studies and constitute the analytical backbone of the toolkit.

Multi-dimensional Housing inequality framework (from HouseInc conceptual framework - D2.2).

TOPIC: VULNERABILITY and EXPOSURE | For: all practitioners - conceptual foundation

The HouseInc conceptual framework supports the understanding of housing inequality as a multi-layered and systemic challenge. In particular, the definition of a 4A framework and of a causal chain might support practitioners and policy makers in taking into account all the levels of complexity, without missing some aspects.

What do practitioners need to diagnose?

The Four As diagnostic lens (Availability, Affordability, Accessibility, Acceptability)

- The framework enables precise problem naming: moving from "housing crisis" to identifying which "A" is failing and for whom
- Practitioners learn to map local deficits: (a) what data exists, (b) which populations are affected, (c) which obstacles dominate, (d) what enablers are feasible

Causal chain reasoning (Drivers > Manifestations > Outcomes > Solutions > Indicators)

- Enables stakeholders to trace pathways: for priority issue (e.g., energy poverty), identify drivers (e.g. market, policy, geography), manifestations (e.g. cold homes, arrears), outcomes (e.g. health impacts), solutions targeting appropriate level
- Shifts focus from symptoms to root causes.

The HouseInc conceptual framework strongly supports the understanding of housing inequality as a multi-layered and systemic challenge. In particular, the definition of a 4A framework and of a causal chain will support practitioners and policy makers in considering all levels of complexity.

Data governance and evidence literacy (from HouseInc D3.1 – Selection of country-based datasets and D3.3 – Meta study on housing policy effects)

TOPIC: DATA INTEGRATION | For: policy analysts, program designers, data specialists

Practitioners need skills to select, critique, and synthesize evidence appropriately. HouseInc research (D3.1, D3.3) shows how to do this in context-specific ways.

How do practitioners select, critique and synthesize evidence?

Critical data selection: understanding that housing analysis requires both outcome indicators (dependent variables: homelessness rates, overcrowding) and driver indicators (independent variables: wage levels, construction costs, discrimination)

- Practitioners learn to evaluate whether comparative data from other contexts is relevant to local housing regimes (dualist vs. unitary systems produce different inequality patterns)

Policy evidence synthesis: recognizing that housing policies have intended effects, unintended side effects, and composite/trade-off effects when combined. For example: Rent control reduces rents for controlled units (intended) but may reduce new construction and increase rents for uncontrolled units (unintended)

- Practitioners learn to map local policy mixes, identify complementarities/conflicts, communicate evidence responsibly

Granular measurement for hidden deprivation (from Houseinc D4.2 - Smart meter data for measurement and identification of energy poverty)

TOPIC: VULNERABILITY and EXPOSURE + DATA INTEGRATION | For: data analysts, monitoring specialists, researchers

Practitioners need techniques to move beyond population-level statistical estimates to reveal invisible inequality. HouseInc's smart meter research (D4.2) demonstrates how granular data reveals patterns invisible to conventional metrics.

How do practitioners move beyond population-level statistical estimates to reveal invisible inequality? How to have more geographically precise measurement?

High-frequency data analysis: leveraging granular data (smart meters, administrative records) to capture deprivation invisible in annual aggregates

- Practitioners learn that when and how energy is consumed reveals more than how much annually
- Practitioners learn that consumption must be contextualized: by external temperature, building characteristics, household composition

Behavior-sensitive indicators: understanding that designed/certified performance (e.g., Energy Performance Certificates) diverges from actual consumption shaped by affordability constraints and thermal discomfort

- Practitioners learn for instance that low EPC ratings correlate poorly with energy poverty when households under-heat despite efficient buildings

Scale-appropriate governance matching (from HouseInc D5.9 - Interlinkages of housing inequalities: findings from the case studies and D3.3 – Meta study on housing policy effects)

TOPIC: SYSTEMIC DRIVERS | For: policy analysts, program managers, municipal officials

Practitioners need to understand that challenges, their drivers, and potential solutions operate at different scales. HouseInc's cross-case analysis (D5.9, D3.3) shows how to map these appropriately.

How do practitioners understand that challenges, drivers, and solutions operate at different scales?

Multi-scalar driver mapping: recognizing that a household-level manifestation (e.g., energy poverty) may stem from national-level drivers (e.g. energy pricing policy), building-level factors (e.g. poor insulation), and neighborhood norms (e.g. stigma preventing subsidy uptake)

- Practitioners learn to assign drivers to appropriate governance levels: household (income support), building (retrofit policies), neighborhood (urban planning), national (energy policy)
- Practitioners learn how to tailor solutions: they must target the scale where drivers operate; at the same time local campaigns cannot resolve national policy failures alone

Modifiable vs. structural drivers: distinguishing household-level modifiable factors (e.g. energy literacy, consumption behavior) from structural immutable factors (e.g. ethnic discrimination, housing financialization) determines capacity building focus.

Stakeholder power analysis and engagement design (from HouseInc D8.4 – Stakeholder mapping and engagement framework)

TOPIC: INSTITUTIONAL COORDINATION + COMMUNITY EXPERIENCE | For: community organizers, program managers, facilitators

Practitioners need to understand who influences outcomes and how to design engagement appropriately. HouseInc's stakeholder mapping (D8.4) provides evidence-based engagement protocols.

Who influences outcomes? How to design appropriate engagement?

Power-interest matrix: categorize stakeholders by power/influence and interest levels to determine engagement strategies

- High power/high interest: Manage closely (continuous engagement)
- High power/low interest: Keep satisfied (tailored communication emphasizing relevance)
- Low power/high interest: Keep informed (regular updates, empowerment opportunities)
- Low power/low interest: Monitor (simplified engagement)

Differentiated engagement for marginalized populations: evidence-based methods addressing accessibility barriers (language, visual vs. text materials), trust-building (peer-to-

peer models, gatekeepers, repeated engagement), cultural sensitivity (appropriate venues, timing, catering), universal design (physical accessibility).

The HouseInc deliverables provide a coherent evidence base that can translate directly into analytical capacity-building practice. D2.2 establishes the diagnostic architecture (the Four As framework) and causal chains that enable stakeholders to name problems with precision. D3.1 and D3.3 build data literacy, potentially teaching participants how to select context-appropriate indicators and understand policy effects beyond surface-level impacts. D4.2 introduces granular measurement techniques that reveal hidden deprivation invisible to conventional metrics. D5.9 synthesizes evidence-based elements from case studies into operational tools, demonstrating how to map interlinked drivers across scales and distinguish modifiable from structural factors. D8.4 completes the framework by equipping participants with stakeholder analysis methods and engagement protocols that ensure research reaches implementation actors.
These results can be exploited in capacity-building to allow to participants gain conceptual frameworks for diagnosis, data skills for evidence generation, causal reasoning and engagement strategies for mobilizing multi-level action. This progression moves stakeholders from problem recognition to strategic analysis, preparing the ground for the phase of policy development and solution co-production.

3.2 MULTI-SCALAR DIAGNOSTIC FRAMEWORK FOR HOUSING INEQUALITY

This chapter shifts the analytical lens from what housing inequality looks like to what drives it and it establishes the conceptual architecture for understanding how housing inequality operates across geographic and governance scales. Building on the empirical evidence documented in D5.9 on the interlinkages report based on fieldwork in the Czech Republic, Romania, Italy, and Germany, this section presents a **multi-scalar diagnostic framework** enabling practitioners to **trace causal pathways and coordinate multi-level action**. Geographic scales are considered as overlapping, mutually constitutive spaces where drivers interact and integrate one another. Furthermore, structural issues (like ethnic discrimination or housing financialization) stem from interlocking causes operating through different mechanisms and at different scales as they operate simultaneously through levels (European and national policy legacies, regional markets/norms, neighbourhood managements style, household experiences).

The analysis in this chapter builds directly on the conceptual model of D5.9 to identify six manifestations of housing inequality, its **drivers** (the underlying causes), **outcomes** (the longer-term consequences), and the **geographic scales** at which these factors operate:

- Drivers and outcomes of Unaffordable housing in relation to energy costs
- Drivers and outcomes of Energy efficiency challenges in building stock
- Drivers and outcomes of a Lack of residential mobility (both within and across neighbourhoods)
- Drivers and outcomes of Housing exclusion (spatial, economic, and social)
- Drivers and outcomes of Substandard housing conditions
- Drivers and outcomes of Residential dissatisfaction

Based on the Drivers, this section will support the translation of the analytical multi-scalar framework into accessible language for policymakers and stakeholders, equipping them to think structurally to the root causes of housing inequality and emphasizing the practical implications: e.g. to address residential immobility in a neighbourhood like Vogelstang, you need coordinated interventions that tackle discriminatory rental practices (local/regional norms), expand social housing supply (municipal/national policy), and provide financial support for moving costs (household-targeted subsidies).
By categorizing drivers not just by scale/level but by type, a capacity building process can help policymakers and stakeholders to identify bundled interventions: e.g. a policy reform that mandates accessible housing (legal change) combined with retrofitting subsidies (infrastructure investment) and public awareness campaigns that challenge housing norms (norm change).

3.3 THE SIX DRIVER FACTSHEETS

These factsheets translate evidence-based analysis into practitioners' tools designed for use in capacity-building workshops where participants learn to audit their local housing challenges using an evidence-informed diagnostic framework. Each factsheet follows a consistent structure: analytical challenge, key concepts, evidence from comparative research (generalized beyond project context), target populations, and diagnostic questions to guide local assessment.

Driver 1: Unaffordable Housing in Relation to Energy Costs

Analytical challenge: how to measure and understand the housing-energy affordability nexus (standard poverty metrics miss energy costs, while energy poverty indicators often ignore housing tenure and quality). As a result, thousands of households choosing between heating and eating remain invisible in official statistics.

Key concepts:

- Households in your area may experience energy poverty through:
- High rental costs consuming 40%+ of income, leaving nothing for energy bills
- Rising energy prices (triggered by geopolitical crises) hitting low-income households hardest
- Inefficient buildings requiring more energy to maintain basic comfort, yet tenants' impossibility to force landlords to upgrade
- Landlords do not pay energy bills; therefore they have no motivation to retrofit; tenants cannot retrofit properties they do not own
- Energy illiteracy: residents unclear about bills, unaware of cheaper providers, or unable to navigate utility systems
- Structural disadvantage: low-wage employment, ethnic discrimination limiting job access, or household composition (more children = higher consumption) driving poverty independently of individual choices

Evidence from HouseInc:

- Czech Republic: 33% of Roma households spend >40% of income on housing, compared to 9% nationally. 67% of Roma rent (vs. 19% nationally), making them vulnerable to market price shocks.

- Germany (Mannheim-Vogelstang): elderly residents reported energy costs consuming 15-18% of fixed pensions in winter, reaching 25% in cold months, a burden that forces choosing between heating and medication.
- Romania: families without functioning stoves reported daily cold during winter. Many lack proper insulation, forcing reliance on expensive wood-burning stoves that consume family budgets while still failing to maintain adequate warmth.
- High rental costs combine with building inefficiency, rising energy prices, and low incomes to create a combination of drivers.

Target populations: Elderly on fixed incomes, large families in small units, tenants in poor-quality private rentals, Roma and ethnic minorities, single-parent households.

Diagnostic questions:

- What local data exists on utility arrears and disconnections? (this reveals energy poverty invisible in income statistics)
- Which populations are missing from housing cost data?
- What's your local employment landscape?
- How many households are renters vs. owners?
- What energy sources dominate and which communities lack alternatives?
- What existing programs address energy poverty and how many eligible households actually access them?

Driver 2: Energy Efficiency Challenges in Building Stock

Analytical challenge

Energy Performance Certificates (EPCs) measure theoretical building performance under standard conditions, but do not capture actual consumption patterns shaped by occupant behavior, affordability constraints, and thermal discomfort. Low EPC ratings correlate poorly with energy poverty in practice, because under-heating (cold homes) does not register in efficiency metrics. Meanwhile, fixing building performance requires coordinating multiple owners with competing interests, investment capital that low-income households cannot access, and policy frameworks that often work against vulnerable tenants.

Key concepts

Energy efficiency gaps are exacerbated by multiple causes:

- Clear difference between designed/certified energy efficiency and actual consumption
- Households may reduce heating to unaffordable minimums despite "efficient" buildings
- Energy-poor households already under-consuming before retrofits, limiting savings potential
- retrofit costs are beyond reach for most households; at the same time, landlords lack incentive to absorb costs
- Fragmented ownership: when a building has mixed owner-occupiers and renters, reaching consensus on expensive retrofits becomes nearly impossible
- EU strategy mandating building stock upgrades, but lacking social protection for vulnerable tenants

Evidence from HouseInc

- Mannheim case study: 68% of housing stock in Vogelstang pre-dates 1980, with EPC ratings C-E (average 150-200 kWh/m²/year)
- Romanian informal settlements: Zero EPC coverage, buildings unregistered, unregulated, and unmeasured. Families rely on wood-burning stoves providing inadequate heat while consuming expensive fuel.
- Czech Republic: 42% of Roma households reported visible mold/dampness (indicator of poor thermal performance and ventilation
- Building inefficiency is embedded in ownership structures and policy failures. Inefficient building stock concentrates in social housing estates built 1950s-1970s (concrete panel construction, no insulation), privatized post-socialist housing (passed to private owners without retrofit obligations), informal settlements (self-built structures using salvaged materials), inner-city rental markets (old private stock with absent landlords).

Target populations

- Social housing tenants (living in public-owned but neglected estates)
- Private renters in old building stock (no control over landlord decisions)
- Low-income homeowners (unable to afford retrofit costs despite ownership)
- Informal settlement residents (excluded from building regulations entirely)

Diagnostic questions

- How old is your local housing stock?
- Where are EPC ratings lowest and do these areas overlap with energy poverty hotspots?
- Which buildings are legally exempt from minimum energy performance standards?
- Who owns the worst-performing buildings (social housing authority, private landlords, homeowners)?
- What retrofit subsidies exist and and who actually accesses them?

Driver 3: Lack of Residential Mobility

Analytical challenge

Residential mobility describes the possibility to move when you need or want to. It is typically measured through moving rates, but immobility (inability to move when needed/desired) is invisible in administrative data. Households not moving may signal neighborhood attachment but also entrapment in unsuitable housing due to discrimination, financial barriers, or market failures.

Key concepts

Residents do not move due to:

- High housing costs: rent increases overtake wages, making moves to new units unaffordable; deposits consume 2-3 months' rent
- landlords discriminating and refusing rental applications based on ethnicity, family status, source of income, or neighborhood reputation
- by choice (community ties, childcare networks, employment leads, trauma or cultural community) vs. constraint (locked out of alternatives)

- Mismatch between household needs and housing characteristics (elderly in multi-story buildings, overcrowded families, disabled residents in inaccessible buildings)
- Complex paperwork, income verification, credit checks, guarantor requirements exclude low-income tenants even when affordability is not the issue

Evidence from HouseInc

- Mannheim: 73% of elderly survey respondents reported wanting to downsize but facing insurmountable barriers (deposits, discriminatory age-based rental refusals, lack of accessible ground-floor units)
- Czech Republic: 89% of Roma families reported being refused rental viewings immobility stemming from discrimination
- Italy: Ukrainian refugees in Piedmont reception system housed in temporary accommodations with no pathway to permanent housing, with structural immobility built into policy design
- Immobility appears to be highest in segregated neighborhoods with limited housing alternatives, municipalities with tight rental markets and long social housing queues, peripheral areas with poor transport access (mobility requires car ownership), regions with language/cultural barriers for migrants.

Target populations

- Elderly seeking to downsize (facing age discrimination, accessibility barriers)
- Large families in overcrowded units (excluded by "maximum occupancy" rules, unable to afford larger units)
- Roma and ethnic minorities (overt rental discrimination documented across all case studies)
- Refugees and recent migrants (lacking rental history, credit, guarantors, language)
- Disabled residents in inaccessible buildings (shortage of adapted housing stock)

Diagnostic questions

- What are deposit requirements in your rental market?
- What share of local rental stock is accessible (ground floor, elevators, adapted bathrooms)?
- How long are social housing waiting lists?
- Is rental discrimination documented locally and through which mechanisms? (explicit refusals, "already rented" excuses, discriminatory advertising)
- What enforcement exists for anti-discrimination housing law?
- Where is affordable housing concentrated and how do those neighborhoods rank on opportunity indices (schools, jobs, services, health, safety)?
- Are affordable units in areas accessible by public transport, or does housing affordability require car ownership?

Driver 4: Housing Exclusion

Analytical challenge

Housing exclusion operates through multiple, overlapping and sometimes cascading dimensions: e.g. lack of legal recognition (informal settlements), active discrimination (Roma, refugees), economic barriers (unaffordability), spatial segregation. Measuring

exclusion requires going beyond homelessness statistics to capture hidden forms: overcrowding, insecure tenure, couch-surfing, institutional living.

Key concepts

Exclusion operates through:

- Housing exclusion continuum which stems from homelessness, to temporary accommodation to insecure/inadequate housing, reinforcing vulnerability across generations
- Legal invisibility: informal residents, undocumented migrants, people without property titles exist outside formal housing systems, unprotected by law, excluded from services
- Market discrimination and stigma, which brings landlords to screen out "undesirable" tenants (ethnic minorities, large families, single parents, disabled people, non-citizens, people with criminal records)
- Affordable housing concentrated in stigmatized, low-opportunity neighborhoods; addresses themselves block employment, schooling, health opportunities
- Cumulative disadvantage from other forms (employment, healthcare, education, social networks)

Evidence from HouseInc

- Romania: Dărvari informal settlement residents lack legal addresses, excluding them from ID cards, healthcare registration, school enrollment, social assistance, housing exclusion producing cascading rights deprivation
- Czech Republic: 34% of Roma survey respondents reported landlords explicitly refusing rentals based on ethnicity
- Italy: 68% of Ukrainian refugees in Piedmont reception system housed in temporary accommodations >18 months, formal inclusion (documented refugee status) coexisting with housing precarity
- Exclusion concentrates in informal settlements on municipal peripheries, inner-city "ethnic enclaves" with rental discrimination elsewhere, public housing estates with concentrated disadvantage, reception centers and temporary accommodations for refugees/asylum seekers.

Target population

- Informal settlement residents (lacking property titles, legal addresses)
- Ethnic communities (facing pervasive housing discrimination)
- Refugees and undocumented migrants (legal status barriers)
- People experiencing homelessness (hidden homelessness often invisible in statistics)
- Households exiting institutions (prisons, care homes, hospitals) with nowhere to go

Diagnostic questions

- How many households locally live in informal settlements without legal tenure security?
- Where do people experiencing homelessness stay when shelters are full or absent? (couch-surfing, squatting, institutional settings)
- How does lack of legal address exclude residents from other services (healthcare, school enrollment, social benefits, voting)?
- What happens to households evicted or displaced, where do they go?
- What legal pathways exist for informal settlement regularization or affordable housing access for undocumented residents?

Driver 5: Substandard Housing

Analytical challenge

Defining "substandard" is controversial as minimum housing standards vary by country, and implementation is fragile. Households and residents tolerate poor conditions when alternatives are unaffordable or unavailable. Measuring quality requires going beyond physical metrics (space, facilities) to include safety (structural stability, fire hazards), health (mold, pests, heating), and dignity (privacy, security). Because deprived housing concentrates among the poorest, "substandard" homes are often the only options available.

Key concepts

Substandard housing exists due to

- Lack of professional construction and materials, informal homes expose residents to structural danger, weather exposure, and health hazards
- low-income homeowners (especially elderly, homeowners who purchased degraded housing) cannot afford repairs
- Tenure insecurity impacts informal (or temporary) residents who cannot demand improvements without risking eviction, while private renters tolerate shortcomings fearing retaliation
- Minimum standards exist on paper but are not inspected or required, especially in private rental and informal sectors.

Evidence from HouseInc

- Romania: 100% of Dărvari informal settlement units lack indoor plumbing; 68% report winter indoor temperatures <12°C
- Czech Republic: 42% of Roma households reported visible mold/dampness (vs. 8% national average)

Target population

- Informal settlement residents (living in structurally unsafe, unserviced dwellings)
- Private renters in low-cost/low-quality segments (slum landlordism)
- Roma families (segregated housing markets push them into worst stock)
- Low-income elderly homeowners (unable to afford repairs)
- Large families (overcrowding producing health hazards)

Diagnostic questions

- What local minimum housing standards exist and what enforcement mechanisms? (inspections, penalties, tenant remedies)
- How many housing code violations are reported annually and what share result in landlord compliance?
- What share of households report cold/damp, mold, pest infestation, overcrowding?
- Are housing-related health outcomes tracked (respiratory illness, injury from structural defects)?
- Do public health and housing departments coordinate responses?
- What prevents households from moving out of substandard units?
- What prevents landlords from improving conditions?
- What prevents homeowners from repairs?

Driver 6: Residential Dissatisfaction

Analytical challenge

Residential satisfaction is subjective, what constitutes acceptable housing varies by cultural norms, personal history and expectations. But systematic dissatisfaction patterns signal inequality: this happens when entire communities report feeling unsafe, excluded, or disrespected in their neighborhoods. The challenge is for policy to consider also the sense of belonging, safety and dignity, beyond affordability and availability.

Key concepts

Residential dissatisfaction stems from:

- housing being unsuitable for household needs (inaccessible buildings for elderly/disabled, overcrowded, lacking culturally appropriate features)
- neighborhood stigma, discrimination, lack of community cohesion, safety concerns (real and perceived)
- residents feeling unheard; complaints ignored; planning decisions made to communities not with them
- external negative perception of neighborhoods that residents internalized as shame, affecting mental health and limiting opportunities
- temporary accommodations, constant eviction threats, lack of control over housing conditions

Evidence from HouseInc

- Italy: 54% of Ukrainian refugees reported dissatisfaction with temporary reception accommodations (lack of privacy, autonomy, culturally appropriate space)
- Germany: Mannheim elderly residents reported high neighborhood attachment (73% satisfied) but dissatisfaction with housing units themselves (42% wanting to move to more suitable apartments if accessible)

Target populations

- Refugees in temporary reception systems (indefinite limbo producing distress)
- Roma in segregated neighborhoods (external stigma, internal desire to leave)
- Elderly in unsuitable units (physical mismatch, but emotional attachment to neighborhood)
- Families in overcrowded housing (privacy deprivation, stress)

Diagnostic questions

- What local data exists on residential satisfaction?
- Do satisfaction surveys disaggregate by neighborhood, tenure, ethnicity, age, disability?
- Is dissatisfaction primarily physical (unsuitable unit) vs. social (neighborhood stigma) vs. institutional (lack of voice in planning)?
- Do residents want to leave neighborhoods and if so, what barriers prevent exit?
- Where does dissatisfaction overlap with other drivers (unaffordability, exclusion, poor quality)?
- What mechanisms exist for residents to voice concerns and influence housing/neighborhood planning?
- Do housing providers measure tenant satisfaction and act on results?

4 FRAMEWORK: CAPACITY BUILDING TOOLKIT, A THREE-LEVEL PROGRESSION FRAMEWORK

This section presents the analytical capacity-building progression framework that underpins the HouseInc toolkit. Rather than a one-size-fits-all approach, each case study selects which level(s) align with local priorities, creating a **logical framework** from individual capacity and responsibility, through multi-stakeholder collaboration, to community empowerment. This progression reflects research showing that sustainable capacity development operates simultaneously at individual, organizational, and environmental levels, with each reinforcing the others.

4.1 THE THREE LEVELS OF ANALYTICAL CAPACITY

The framework is structured around three levels of analytical capacity-building.
These levels do not represent chronological steps, but complementary dimensions of capacity that can be activated depending on the local context and objectives.
The levels should not be confused with the operational phases described in the roadmap (Section 5). The framework recognizes that capacity building is not purely technical (skills transfer) but inherently social and political. It progresses through three distinct yet interconnected dimensions that need to be achieved:

- **Level 1 – Responsibility/Individual Capacity** (FOUNDATION): technical and analytical skills for understanding evidence: e.g. data literacy, GIS interpretation, map reading, identifying spatial patterns. This level requires the development of individual skills to understand the complexity of the challenge analytically, applied to the specific local dimension. It benefits from programs/activities that support creating capacities related to data literacy and spatial understanding.
- **Level 2 - Organization/Collaborative Capacity** (COLLABORATION): relational skills enabling different stakeholders to work together e.g. communication across silos, co-creation methods, negotiating competing priorities. This level requires the development of skills that support working in groups (e.g. internal task forces), identifying involved actors (understanding actors' powers and levels of interest in the context, capacity to reach them, etc) and creating collaborative environments across actors. It benefits from programs/activities that support creating capacities in collaborative approaches.
- **Level 3 - Community/Systemic Capacity** (AMPLIFICATION): mobilization skills empowering communities and amplifying voice e.g. strategic storytelling, community engagement, collective action for housing justice. This level requires the development of skills that support listening and empowering communities (considering different engagement levels from acknowledgement to participation to empowerment). It benefits from programs/activities that support creating capacities on communication to communities, storytelling, participatory approaches, digital inclusion, one-stop-shop creation, working with schools, etc.

This progression aligns with evidence that effective capacity development requires attending to enabling environments (political will, institutional structures), organizational structures (coordination mechanisms, data governance), and individual capabilities (skills, knowledge, confidence).
Each level is deepened in the description below, highlighting some examples of activities that are possible to organise in order to increase that level of capacity.

Level 1: FOUNDATION. Spatial Data-Driven Territorial Insight for Housing Equality

Focus: individual and organisational analytical capacity.
Target Level: Individual stakeholder skill empowerment (primarily municipal staff, NGO analysts, researchers) and responsibility strengthening
Primary Focus: Enhanced **individual analytical capacity** to perform housing inequality diagnostics using spatial approaches
Objective:
Improve municipal and/or NGO capacity to analyze housing inequalities and fragile communities' spatial segregation through GIS and spatial methods, including:

- Enhanced data selection for creating vulnerability maps
- Improved map/infographic understanding and readability
- Identification of vulnerable areas and intervention priorities

Activities:

- Evidence Presentation: data collection campaigns, collection in a unique system of the databases already present
- Participatory Data Mapping: stakeholders identify what local data exists, gaps, accessibility barriers; GIS vulnerability mapping to visualize inequality hotspots;
- Local Context Profiling: stakeholders describe their housing challenges in relation to HouseInc drivers; Participatory needs assessment workshops; "Asset mapping" identifying community strengths.

Key Challenge: ensuring participation of marginalized communities' representatives, not only public officials and/or NGO staff.

Level 2: COLLABORATION. Multi-Stakeholder Co-Design for Housing Solutions

Focus: inter-institutional and multi-stakeholder coordination.
Target Level: multi-stakeholder collaborative skill empowerment (cross-organizational teams)
Primary Focus: enhanced relational and collaborative capacity among different stakeholders
Objective:
Improve capacity for multi-stakeholder collaboration and pilot projects among municipalities, NGOs, associations, community representatives, including:

- Facilitating cross-organizational dialogue on housing challenges
- Developing shared understanding of evidence (overcoming disciplinary/sectoral silos)
- Co-creating tailored housing solutions leveraging each stakeholder's expertise

Activities:

- Data Analysis Sessions: small groups work with local data; solution brainstorming, prototype development, resource mobilization, pilot design; design charrettes with mediators preventing domination

- Qualitative evidence integration workshops: stakeholders share lived experience testimonies, researchers demonstrate coding and thematic analysis; Illustrated maps for spatial literacy (maps, or 3D models of neighborhoods help residents engage)

Key Challenge: balancing aspirational visions with realistic resource constraints; managing conflicting priorities; moving forward beyond constraints and limitations.

Level 3: AMPLIFICATION. Strategic Communication and Storytelling for Housing Justice

Focus: empowerment, visibility and policy influence of marginalised perspectives.
Target Level: community empowerment facilitated by stakeholders
Primary Focus: collective voice and community mobilization capacity to demand housing justice
Objective:
Develop effective storytelling and communication strategies raising awareness about housing inequalities, and strategies to plan and manage community engagement campaigns for solidarity, inclusion, cross-collaboration, and empowerment of marginalised groups, including:

- Strategic communication translating evidence into compelling narratives for different audiences
- Campaign design and implementation for community mobilization
- Amplifying marginalized voices in policy dialogue

Activities:

- Community validation workshops: present preliminary analytical findings to affected populations; Peer learning exchanges sharing lessons across sites
- Analytical process evaluation: stakeholders reflect on what they learned, remaining capacity gaps; focus groups assessing satisfaction and unintended consequences
- Institutionalization planning: how to sustain analytical capacity beyond project monitoring indicators aligned with initial vulnerability diagnosis (tracking GIS metrics over time)

Key Challenge: sustaining engagement beyond project funding; institutionalizing lessons; embedding practices in organizations with limited resources, staff turnover, competing priorities.

5 FROM FRAMEWORK TO PRACTICE: THE ROADMAP

This section of the report outlines a set of operational aspects that can be implemented to strengthen analytical capacity of housing inequality. The roadmap is primarily addressed to practitioners and policymakers and provides practical, action-oriented insights, as well as tools that can be adapted to the specific characteristics of different territories. The proposed phases build on both the experience gained throughout the project and the methodology presented in this document. Overall, the toolkit is conceived as a step-based approach structured around three main phases taking place inside the working operative environment of the Living Lab.

The **working environment** is the **Living Lab,** which entails the organization of a launch workshop and a general program of initiatives/activities. It is the place where the overarching engagement methodology and the capacity-building activity are included. This is where the analytical approach translates into concrete solutions for the housing sector. As described in Chapter 5, the Living Lab methodology can provide an effective framework for implementing capacity-building initiatives. This setting supports practitioners in identifying relevant activities, selecting the most appropriate tools and canvases, facilitating the implementation process, and documenting the outcomes once activities are completed. Within the context of the Living Lab, the three phases of work proposed to support the improvement of capacities across housing inequalities are the following:

- PHASE 1: Understanding the context. This phase focuses on identifying the main drivers of housing inequalities in the target area. It includes the selection of appropriate datasets for the analytical process, paying particular attention to the most suitable geographical scale, as well as the identification of key stakeholders to be involved.
- PHASE 2: Understanding the level of capacity. The second phase is crucial for framing capacity-building activities. It supports practitioners in defining priorities according to the level of analytical capacity they aim to develop at first (foundation, collaboration, or amplification).
- PHASE 3: Planning in detail and running the single initiative within the Living Lab and reporting them. The third phase focuses on the running of the specific single initiatives within the Living Lab context together with the analysing of results and the identification of potential patterns for transferability to other contexts.

The figure below illustrates the relationship between the different operational phases and the levels of analytical capacity building. As shown in the diagram, the context and the drivers of housing inequalities are considered as contextual elements, while capacity levels define the directions for skills development. The Living Lab, in turn, represents the operational environment in which concrete initiatives are implemented. It is important to note that a Living Lab cannot address all aspects simultaneously, therefore practitioners are encouraged to focus on a limited number of contextual elements and capacity levels. For instance, an initial Living Lab may concentrate on a single housing inequality driver and one, or at most two, capacity levels to be strengthened.

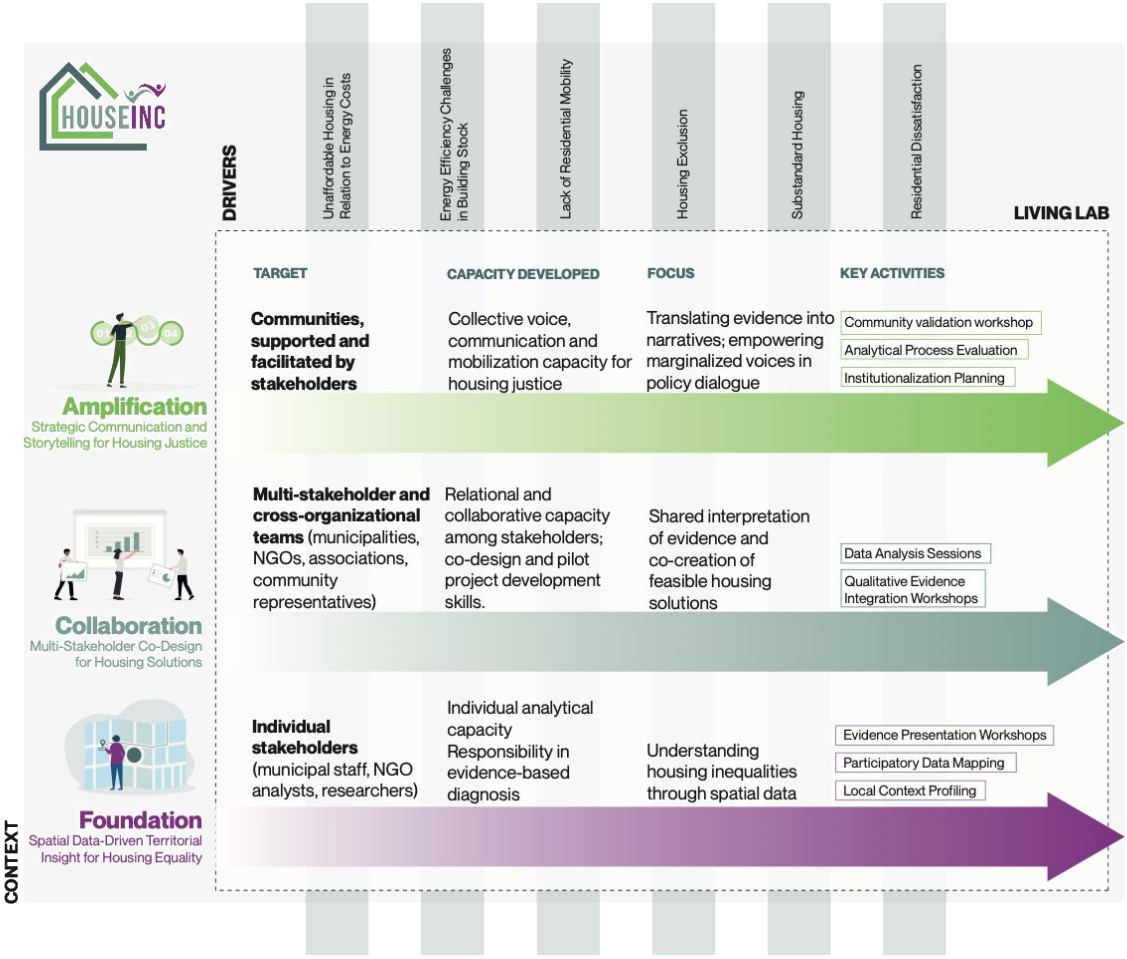


Figure 2 - interaction between Living Lab working environment, drivers and capacity building levels

5.1 SETTING THE LIVING LABS AND DEFINE THE MOST USEFUL TOOLS AND INSTRUMENTS

Use the Living Lab as the main operational setting to work on housing inequalities while simultaneously developing analytical capacity. The Living Lab is a structured space for stakeholders shared representation, common analysis, co-design activity, experimentation, feedback collection and monitoring of results.
In the context of the project and in this roadmap, the Living Lab is conceived as an opportunity for practitioners and researchers to work together on real-life housing inequality challenges, using evidence to identify potential solutions, define priorities, and build shared ways of working. Further development of the Living Lab complete methodology will be provided in D6.2.
The Living Lab approach is **strongly recommended** as the primary operational setting because it simultaneously addresses two goals: solving real life problems AND building organizational capacity.

However, the Living Lab model works best when certain **foundational conditions** are present:

- Stakeholder commitment: at least one anchor organization and 3-4 committed partner organizations willing to participate
- Clear focus: a specific, bounded housing challenge identified (not multiple, vague problems)
- Dedicated resources: time allocation from participants (not one-off events) and facilitation capacity
- Access to evidence: ability to gather or access data on the local challenge

Organisations not responding to these conditions (with lower resource capacity or fewer connections) can recur to simplified capacity building pprogrammes, without considering a Living Lab framework. This involves having for example a series of workshops, gathering a smaller stakeholders' group, using subset of tools and gradually expand stakeholders' network and scope. Simplified or adapted formats can still build analytical capacity while making progress on housing challenges.

The Living Lab is used to:

- collectively interpret evidence on housing inequalities in the local context
- identify potential solutions, intervention pathways, and priorities
- test analytical tools and approaches in real conditions
- strengthen analytical, collaborative, and engagement skills through practice

The Living Lab should combine problem-solving and capacity building. In many cases, the same activity can serve both purposes. The Living Lab should be designed as a sequence of structured activities rather than as a single event. Its focus should remain narrow and clearly defined, concentrating on a limited number of housing inequality drivers and on the capacity levels identified in Phase 1.

The tools and instruments described below (and detailed in Chapter 6 and Annexes) are designed for the full Living Lab sequence. However, they are **adaptable to different organizational contexts**. Practitioners can select one or more pilot session most relevant to their priority challenge and use Methods Toolkit (Annex 4) selectively, choosing techniques appropriate to their group size and capacity level.

In relation to the different HouseInc case studies, several tools, guidelines and canvas have been tested and developed. A short description is provided in Chapter 6 and the proper templates are available in the Annexes, where it is possible to find:

- a short guideline for mapping stakeholders Annex 1)
- a guideline for structuring a Living Lab Launch workshop (Annex 2)
- a guideline for structuring the capacity building process (Annex 3)
- a methods toolkit, including several tools that can be used in different sessions (Annex 4)
- several canvas to support the activities.

Three sessions are suggested as pilot initiatives to be tested as a prototype of the programme:

- Participatory Mapping Activities
- Pathway of Transition
- Co-design a campaign

Specific instruments and tools are briefly presented in the next session, together with additional instruments suggested for the facilitation of participatory work in Living Labs.

5.2 THREE PHASES FOR THE DEFINITION OF CAPACITY BUILDING ACTIVITIES: A STEP-BY-STEP APPROACH IN THREE PHASES

5.2.1 PHASE 1: UNDERSTANDING THE CONTEXT

Use this phase to build a clear and shared understanding of housing inequalities in your territory. Do not start from solutions. Start from the diagnosis.
The conceptual framework and the six drivers of housing inequality are explained in detail in the previous section (in particular in 4.3). This phase translates that framework into an operational process that can be applied in practice.
The objective is to identify which housing inequality drivers matter most locally, how they manifest, and which data, actors, and scales should be considered. In particular, it might be beneficial to consider also current limits and constraints. Many cities already have some initiatives in place: starting from analysing the barriers and what is not going in the right direction is key to make subsequent phases more concrete and effective.

Step 1. Select the priority drivers

Identify which of the six drivers of housing inequality are most relevant in your local context. You do not need to address all drivers at once. Select those that are most visible, urgent, or actionable.
Base this selection on:

- recurring issues reported by residents and frontline services
- pressure on housing, social, or energy services
- spatial concentrations of disadvantage
- gaps between policy objectives and observed outcomes
- current barriers and constraints

The six drivers are:

- Unaffordable housing in relation to energy costs
- Energy efficiency challenges in the building stock
- Lack of residential mobility
- Housing exclusion
- Substandard housing conditions
- Residential dissatisfaction

For a detailed explanation of each driver and its causal mechanisms, refer to Section 4.3.

Step 2. Identify where the drivers operate

For each selected driver, identify the levels at which it operates. Avoid treating housing inequalities as purely local or purely structural.
Clarify:

- which constraints stem from national or regional policies, regulations, or markets
- which problems are produced or reinforced at the municipal or neighbourhood level
- which effects are experienced directly by households

Use this step to distinguish between issues that can be addressed locally and those that require coordination across governance levels.

Dărvari and Vogelstang pilots revealed that openly acknowledging fiscal, legal, institutional and political constraints and limitations proved essential for: a) building participant trust; b) enabling realistic intervention pathways; preventing workshop fatigue, as participants maintain engagement when discussing real possibilities rather than theoretical solutions. Acknowledging these constraints led to more creative problem-solving within real boundaries than workshops that avoid discussing constraints. See Section 7.2.1 for examples of constraint mapping from both pilots.

Step 3. Check available data

Assess which data sources can support the analysis and where gaps exist.
Check:

- which housing, energy, social, and health datasets are available locally
- whether vulnerable or informal populations are missing from official statistics
- which geographical scale makes inequalities visible, such as neighbourhood, district, or city level

Complement quantitative data with qualitative inputs from social services, housing providers, NGOs, and community organisations.

Step 4. Identify key actors

Identify the actors that influence or are affected by the selected drivers and involve them early in the process.
This typically includes:

- municipal departments responsible for housing, social services, energy, planning, and migration
- social housing providers and private landlords
- energy agencies and utilities
- civil society organisations and resident groups

Early involvement supports a shared understanding of the problem and facilitates coordination in later phases. A stakeholder mapping is required in order to gain a deep insight on the most important stakeholders to be involved. In the Annex, a template for this is provided (see Annex 1).

Dărvari and Vogelstang pilot workshops revealed that **the composition of stakeholders** who participate determines what capacity-building outcomes are achievable. In Dărvari both community and institutions were present, as a result all three capacity levels resulted feasible (Foundation + Collaboration + Amplification); In Vogelstang the workshop included only Municipal staff, hence the work focused on Level 2 (Collaboration); Level 3 (Amplification) resulted limited without community voice; nevertheless cross-departmental coordination was possible; the active presence of implementation authority is a key aspect that would eventually accelerate the pathway development towards solutions. Section 7.2.1 for detailed analysis of stakeholder configuration impact on workshop outcomes.

Step 5. Use guide questions

Use the guiding questions associated with each driver to structure the analysis and move from symptoms to underlying causes.
Examples include:

- Are affordability problems visible in income data, or mainly through energy arrears and disconnections?
- Do inefficient buildings overlap with energy poverty, or are households under-heating their homes?
- Are low mobility rates the result of choice or constrained opportunities?
- Which groups are excluded from formal housing systems and through which mechanisms?
- Where do substandard conditions persist and what prevents improvement or exit?
- Is residential dissatisfaction driven by housing quality, neighbourhood conditions, or governance processes?

The Vogelstang pilot results additionally suggested that a transparent dialogue and discussion, open to critical (or even conflictual) positions can produce complementary unexpected knowledge, to be encouraged through facilitation techniques. In Dărvari the guided discussion led to the definition of two distinct working groups, which autonomously positioned in a more comfortable thread of topics and discussions, where participants could effectively contribute with operational insights and not only generic suggestions. ee Section 7.1.1 and 7.1.2 for detailed description of how guided questions in workshop facilitation led to different outcomes manifestation.

This first phase is conceived as a preliminary step. The guiding questions should be used primarily in internal assessments, as a basis for identifying potential actions and capacity-building needs in later phases. Where appropriate, the outcomes of this phase can be validated with key stakeholders through preliminary meetings or dedicated task forces.

5.2.2 PHASE 2: IDENTIFYING THE LEVEL OF CAPACITY TO ENABLE

Use this phase to decide which level of analytical capacity should be prioritised, based on your objectives, your role, and the context identified in Phase 2. Do not assume that all levels need to be developed at the same time.
Analytical capacity depends on individual skills, organizational arrangements, the ability to engage and empower communities. This phase helps you clarify where capacity gaps are most limiting and where investment will have the greatest impact.
The framework (Ch. 5) distinguishes three levels of analytical capacity: Foundation, Collaboration, and Amplification. Here, the focus is on how to select and use them in practice.

Step 6. Clarify your main objective

Start by clarifying what you want to achieve in the short to medium term. Different objectives require different capacity priorities.
Ask:

- Are you trying to improve evidence-informed decision-making inside your organisation?
- Do you need to coordinate actors and break silos across departments or organisations?
- Do you aim to strengthen community voice and visibility in housing policy debates?

Your primary objective should guide the selection of the capacity level to prioritise.

Step 7. Identify the most limiting capacity gap

Based on the context analysis, identify which capacity gap currently limits your ability to act. Use the following indications:

- Prioritise Level 1 – Foundation if data exists but is poorly used, misunderstood, or fragmented, and if staff lack confidence in interpreting evidence.
- Prioritise Level 2 – Collaboration if evidence exists but is not shared, coordination is weak, or actors work in silos with competing interpretations of the problem.
- Prioritise Level 3 – Amplification if problems are well documented but remain politically marginal, poorly communicated, or disconnected from lived experience and community voice.

Do not frame this choice as a ranking exercise. Focus on what currently blocks progress.

In the Vogelstang pilot, Level 1 was not considered due to the composition of participants, members of the municipal department, aware of data and their most useful use. What was necessary in that case was the establishment of collaboration among sectors and shared issue interpretation. Level 3 was addressed through co-design activities but not completely made operational due to the single-type of the participants engaged.
ee Section 7.1.1 and 7.1.2 for detailed description of the pilots workshop Levels.

Step 8. Align capacity levels with practitioner roles

Different practitioner types tend to face different capacity priorities. Use this alignment as guidance, not as a rigid rule.

- Local authorities typically need to prioritise Level 1 and Level 2 to support policy integration, funding mobilisation, and cross-department coordination.
- Housing associations often benefit from Level 1 and Level 2 to improve tenant data analysis, service coordination, and needs assessment.
- NGOs and community organisations usually prioritise Level 2 and Level 3 to strengthen advocacy, participatory research, and mobilisation capacity.
- Researchers and universities tend to focus on Level 2 to support collaboration and knowledge transfer, while contributing methodologically across levels.
- Residents and community members benefit primarily from Level 1 and Level 3, building data literacy, self-documentation skills, and collective interpretation of evidence.

This alignment is summarised in the Table below and should be adapted to local conditions.

Table 4 - housing practitioners and capacity alignment

PRACTITIONER TYPE	OBJECTIVE	ANALYTICAL CAPACITY FOCUS	CAPACITY LEVEL TO PRIORITIZE
Local authorities	policy integration, funding mobilization, cross-department coordination	policy-relevant evidence synthesis; cross-department data integration	LEVEL 1 LEVEL 2
Housing associations	tenant participation and coordination	Tenant data analysis; service utilization patterns; satisfaction and needs assessment	LEVEL 1 LEVEL 2
NGOs/Community organizations	advocacy, service delivery, community mobilization	Community-based participatory research; advocacy evidence; documenting lived experience	LEVEL 2 LEVEL 3
Researchers/Universities	Empirical evidence, scientific analysis of a complex phenomenon	Methodological innovation; evaluation capacity; knowledge transfer	LEVEL 2
Residents/Community members	skills training, leadership development, collective value reading	Self-documentation; peer research; data literacy; evidence interpretation	LEVEL 1 LEVEL 3

In most cases, start by prioritising one level. Attempting to develop all three simultaneously often dilutes impact.

However, limited combinations can be effective:

- Level 1 + Level 2 when technical evidence needs to be translated into shared organisational understanding
- Level 2 + Level 3 when collaboration exists but community engagement and visibility are weak

Avoid skipping directly to Level 3 without a minimum shared evidence base, as amplification without analytical grounding risks reinforcing narratives without structural insight.

The pilots confirmed that both single-level and multi-level progression are valid when context-matched. Pilot testing validated in Dărvari a multi-level progression with community and institutions moved through all three levels (albeit the 3rd in a prototypical manner). Vogelstang focused on a single-level (Collaboration) with municipal staff only, working on cross-departmental coordination. Capacity-building programmes should match level selection to stakeholder configuration, to explicit capacity-building objectives, to available time and resources.
See Section 7.1.1 and 7.1.2 for detailed description of how each level manifested in different contexts.

Step 9. Validate priorities internally and with key actors

Validate your selected capacity level internally before moving to implementation. Where appropriate, discuss this choice with key stakeholders, such as partner organisations or community representatives, to ensure alignment and feasibility.
Use this validation step to:

- confirm expectations and roles
- adjust ambition to available resources
- prepare the ground for the Living Lab phase

The output of this phase should be a clear statement of:

- which capacity level(s) will be prioritised
- why this choice fits the local context
- which practitioner groups will be involved

This statement will directly inform the identification of the precise activities to be conducted within the Living Lab framework.

5.2.3 PHASE 3: RUNNING THE ACTIVITIES AND SUPPORT MONITORING AND SENSEMAKING PRACTICES

Use this phase to implement the selected activities within the Living Lab and to support structured reflection while the process is ongoing. This phase represents the operational moment of the roadmap, where analytical frameworks, tools, and capacity-building objectives are put into practice. More details on the Living Lab approach and structure will be provided in Deliverable D6.3, together with their implementation in the four case studies.
The activities carried out in this phase should be directly informed by the outcomes of Phase 1 (context and drivers) and Phase 2 (capacity levels to prioritise). The objective is twofold: to work concretely on the selected driver of housing inequality and to strengthen analytical capacity through learning-by-doing with precise initiatives.

Step 10. Design and schedule the activities

Start by defining the sequence of activities to be implemented within the Living Lab. Activities should be selected based on:

- the housing inequality drivers identified in Phase 1
- the capacity level(s) prioritised in Phase 2
- the available time, resources, and participant profiles

Activities may be organised as a single intensive session or as a series of sessions over time. Each activity should have a clear purpose, expected outputs, and an identified facilitation approach. It is important to take into consideration the type of actors involved and the effective capacity and time available.

Step 11. Run the activities using appropriate tools

Implement the activities using the tools and canvases described in the other sections. Facilitation should support active participation, shared interpretation of evidence, and balanced interaction among participants.
Depending on the selected capacity level, activities may focus on (see the Toolkit chapter for more detail on the tools):

- data exploration and diagnostic work (Foundation level)
- collaborative analysis and co-design (Collaboration level)
- storytelling, engagement, and amplification (Amplification level)

The same activity may contribute to more than one capacity level, depending on how it is designed and facilitated.

Step 12. Capture outputs and intermediate results

During the implementation of activities, systematically document outputs and intermediate results. This includes:

- filled-in canvases and visual materials
- notes from group discussions
- emerging priorities, agreements, or points of divergence
- feedback from participants

This documentation is essential to support later monitoring and transferability and should be planned as part of the activity design. Alongside the activities, create moments for reflection and sensemaking. These do not need to be formal evaluation sessions, but short and structured opportunities to reflect on what is emerging. Sensemaking at this stage helps keep the Living Lab adaptive and responsive to participants' needs and contextual constraints.

6 TOOLKIT: TOOLS TO SUPPORT PARTICIPATORY WORK

This chapter provides an overview of tools and methods that can be used to support capacity-building activities withing Living Lab processes. The tools presented here are intended as practical supports to structure analytical work and engagement within the phases described in the previous chapters. When used within Living Labs tools and

pathways can help participants work with evidence, structure discussions, make assumptions explicit, and move from problem diagnosis to shared priorities and potential solutions. At the same time, the choice of tools directly influences which skills are developed, which actors are involved, how power and knowledge are distributed within the process.

The tools are intended as practical supports to structure analytical work and engagement within the phases described in the framework. They play a key role in translating analytical frameworks into practice.

For this reason, the tools are organised in relation to the three levels of analytical capacity defined in the framework: **Foundation, Collaboration and Amplification**. Each tool is associated with the capacity level it supports most directly, while recognising that many tools can contribute to more than one level depending on how they are applied and combined.
Tools supporting **Foundation capacity** focus on strengthening individual analytical skills and encourage a sense of responsibility for the issues analysed. They support data literacy, spatial understanding and analysis, evidence-informed diagnosis of housing inequalities, and are particularly relevant in the early stages of Living Labs and in capacity-building activities aimed at improving analytical confidence.
Tools supporting **Collaboration capacity** help structure interaction between practitioners. Can facilitate shared interpretation of evidence and coordination across organisational and disciplinary silos. Within Living Labs, these tools support the creation of common ground (shared understanding of the problem) and the transformation of individual insights into collective understanding and joint proposals.
Tools supporting **Amplification capacity** focus on activation, engagement, empowerment and mobilisation. These tool help to translate analytical insights into accessible narratives include and amplify voices that are often marginalised in housing policy processes. These tools are particularly relevant when Living Labs aim to connect evidence with lived experience and strengthen the visibility and legitimacy of housing inequality issues.

This chapter provides a non-exhaustive description of each tool main features and use cases. Where relevant, it indicates whether and how the tool has been applied in the project case studies. When a dedicated canvas or template has been developed within the project, this is explicitly referenced as a ready-to-use resource. In addition, each tool entry includes references and sources for further exploration and adaptation.
Not all the tools presented in this chapter have been tested during the Living Lab Launch Workshops. Some tools are included as additional possibilities that might be useful for future steps of the process. Practitioners are therefore encouraged to use this chapter as a flexible toolbox, selecting and adapting tools in relation to their specific objectives, capacity levels, stakeholders involved and local conditions.
Not all tools need to be used in every context. Public authorities and facilitators should select tools based on the capacity level to be strengthened; the composition of participants; available time and resources.

6.1 ICEBREAKING ACTIVITIES

Tools are effective only if the conditions in which they are used are carefully considered: facilitation style, interaction formats, space, number of participants among other organisational choices shape how evidence is interpreted and which voices are heard. Their effectiveness depends not only on the tool itself, but also on how it is embedded in the working process and adapted to the local context. When applying these tools, a limited number of cross-cutting aspects should be considered.

First, attention should be paid to **communication dynamics**. Capacity-building activities and Living Labs typically involve actors with different levels of confidence and familiarity with technical language. Appropriate facilitation helps ensure balanced participation and supports structured discussion. The presence of one or more moderators might be useful to demonstrate a cohesive coordination working group and dedicate full attention to the largest number of participants. Their role will be to establish and maintain clear communicative boundaries, such as agreed rules for speaking, activities in which every opinion is explicitly listened to, how and when to engage in discussion, and time limits for individual interventions. Moderated exchanges, small-group work, and guided exercises can help prevent domination of discussions and make different perspectives visible.

In the Dărvari workshop, the presence of recognised NGO facilitators with community trust created communicative links (they translated not only language but also institutional terminology) as well as boundaries, allowing residents and institutions to speak alongside.

Second, the choice between **digital and analogue tools** should be guided by the participant group and by practical constraints. Digital tools such as Miro or Mentimeter can support anonymous inputs, rapid feedback, archive comments and asynchronous contributions. Analogue tools, such as printed canvases, paper templates, post-its, and physical maps, may be more appropriate where digital access is limited or where slower and more reflective work is required. In many cases, especially with large number of people, combining digital and analogue tools is effective in order to ensure that everyone feels comfortable within the modalities of work.

Vogelstang's facilitators used both printed presentation slides and physical canvas sheets for the mapping discussion, an approach that supported immediate visual feedback and collaborative critique.

Third, **organisational aspects** should be considered. This includes the choice of setting (indoor or outdoor), the number and duration of sessions, among others. Space is usually very important to support trust and a safe participation in the activities: an external or neutral space may encourage openness and exploration of new perspectives, while a familiar place (ex. a shared community space) may be perceived as safer and more conducive to personal expression. Living Labs as the general framework of capacity building processes may be organised as a single intensive workshop or as a series of sessions over time, depending on objectives, available resources, and participants' constraints. Keep time

and the attention span of people into consideration, to avoid overly complex or excessively long meetings. Where necessary, additional support measures, such as translation or childcare, should be considered to enable meaningful participation

The space where activities are held is crucial. Darvari's workshop was held in a space known by the community, creating a safe and neutral environment for participants.

Finally, transparency in the use of **data** is essential. Participants should be informed about how data are collected and interpreted, especially when tools are used to document lived experiences or sensitive situations.

In Vogelstang's mapping activities, facilitators acknowledged data limitations while presenting energy indicators, allowing participants to constructively integrate missing or partially incorrect information provided.

Icebreakers play an important role for starting the activities, especially when participants come from different organisations, disciplines, social backgrounds. Beyond warming up the group, they help establish roles and support the formation of working groups by engaging interaction and align with the objectives of the session. The choice of an icebreaker should depend on available time and group size, but it can depend also on the level of interaction required.

The **Role card game** is useful when participants are expected to work from the perspective of specific groups affected by housing inequalities. As an example, participants are asked to introduce themselves by assuming a housing-related role, such as tenant, landlord, social worker, or another group they choose to represent. These roles can then be used to form groups based on shared or contrasting perspectives, helping participants step outside their starting position and engage with different viewpoints. In some cases, engaging with a different viewpoint might not be the right decision (especially if some community members are participating; in that case, participants can also embrace their own viewpoint, but trying to consider themselves as representative of a larger group more than of their own individuality. This approach is important to avoid providing very specific or individual based suggestions, while maintaining a familiar viewpoint.

Random pairing is a simple and fast method to create groups and encourage unexpected interactions, particularly useful when time is limited or when the programme is long and requires quick re-energising moments. Participants are assigned a visual marker, such as a coloured dot sticker, pencil, either randomly or intentionally. Groups are then formed by matching colours, allowing facilitators to quickly organise participants while introducing a light and informal dynamic.

Speed networking is effective when the goal is to build trust, familiarity, and informal connections among participants who do not already know each other. The activity is organised in short, timed interactions where participants pair up and discuss a focused question, such as their role or expectations. After each round, participants rotate to a new partner. This technique is particularly useful at the beginning of a workshop or after long breaks, such as lunch, to re-activate interaction and merge groups.

Self-formation with rules offers participants autonomy while maintaining a degree of balance across groups. Facilitators define a small number of criteria, for example requiring diversity of skills, organisational backgrounds, within each group. Participants then form groups freely, while facilitators monitor the process to ensure the criteria are met. This approach works well when time is limited but some level of networking and group balance is still needed.
Finally, **interest-based clustering** is useful when the Living Lab workshop aims to address multiple themes (e.g. working on multiple drivers of housing inequality) in parallel. Participants are invited to select the topic or issue they feel most connected to, and groups are formed accordingly. This method helps align group work with participants' interests and expertise, while allowing parallel exploration of different thematic areas.
See Annex 4 for more details on each tool.

6.2 TOOLS FOR THE FOUNDATION LEVEL

Tools supporting the Foundation phase are aimed at strengthening individual analytical capacity and responsibility, helping practitioners to build a shared and evidence-informed understanding of housing inequalities by working with spatial information and structured analytical frameworks. These tools are particularly relevant in the early stages of capacity-building processes, when the objective is to improve data literacy, clarify patterns and drivers of inequality and develop confidence in interpreting evidence.
In this phase, tools are primarily used to support diagnostic activities rather than solution design. They help practitioners understand what data exists, what it shows, what it does not capture, and how different drivers of housing inequality interact in specific territorial contexts. While some of these tools can later be reused in collaborative or participatory settings, their primary function here is to build a solid analytical foundation.

a) Georeferenced maps from existing databases

Georeferenced maps can support the visual exploration of housing inequalities through the spatialisation of existing datasets. They can be used to identify service gaps, recurring spatial patterns, concentrations of vulnerability and overlaps between different indicators, such as housing costs, energy performance, or building age. The focus is on improving the ability to interpret and question spatial evidence. The creation of these maps needs specific skills but after their completion they are very effective for organizing some interactive activities, such as Participatory data mapping and similar.

Use in case studies:
Georeferenced mapping was used across the HouseInc case studies to visualise housing inequality drivers at different geographical level, supporting the identification of priority areas and discussion among practitioners. In particular, the creation of a dataset of information and some infographics was one of the activities of the project (T5.2).

b) Data exploration sessions

There are several ways to organise activities aimed at improving data understanding within the Foundation level. The approaches listed below are intentionally simple and low-threshold and are designed to support an initial exploration of available data before moving to more complex analytical or participatory methods. The following approaches can be used in combination with others and are tailored to the Foundation level. All the sessions proposed can be organised in different ways in relation to the availability of materials. In general, all sessions can take the form of **brainstorming sessions or thematic task forces** and be organized in two ways:

- short-medium length brainstorming session of 40 minutes to 1 hour, if some materials are already present (e.g. overview of already existing datasets, data inventories, maps, etc). In this case the brainstorming session can directly work with the material to identify gaps, priorities, etc.
- medium-long length task forces of 1,5 hours to 3-4 hours (e.g. an entire morning), if there is a need to gather information and data. In this case, it might be useful to identify a thematic focus to work on together.

Data inventory and source mapping session

Participants (working group, task force, single practitioner) list all available datasets relevant to housing inequalities, identifying data owners, update frequency, geographic scale and access conditions. This method helps clarify what information already exists and where fragmentation occurs.

Key indicator selection session

Participants work on identifying and prioritising a limited set of indicators that are most relevant for a specific housing inequality driver. Starting from a data inventory, the activity supports discussion on which indicator best captures the local manifestation of the selected driver, at which scale, and with which limitations.

Scale and boundary checking session

Participants compare the same indicator at different geographic scales, such as region, city, district, and neighbourhood levels. This helps reveal how spatial aggregation can hide or distort housing inequalities.

Guided map reading

Instead of producing new maps, participants work with pre-existing maps (if available) and learn to read patterns, overlaps, gaps and absences. This is a preparatory step for deeper mapping activities and helps build spatial interpretation skills.

Data blind spot identification

Participants explicitly identify which populations, housing block, household or territory are missing from available data and discuss possible reasons. This exercise prepares the ground for participatory and qualitative methods in later phases.

Use in case studies:

Within the HouseInc case studies georeferenced maps and databases were prepared in a draft form and eventually discussed and validated by the workshop participants. This

constituted the preparatory work for the Participatory mapping, which is an advanced version of the ones presented here. The Participatory mapping method and related canvas is described in the Collaboration level.

c) Driver's mapping

Driver's mapping is used to identify and structure the causal mechanisms behind housing inequalities. Participants map relationships between drivers, manifestations and outcomes, making explicit how different factors interact across scales and for which target. This tool supports the transition from descriptive evidence to analytical understanding.

Use in case studies:
Driver's mapping was applied in HouseInc workshops to connect empirical findings to local contexts and to support shared diagnosis among stakeholders. Drivers were mapped according to the thematic focus of each case study and communicated through a simplifies structure developed by HouseInc conceptual framework (D.2.2).

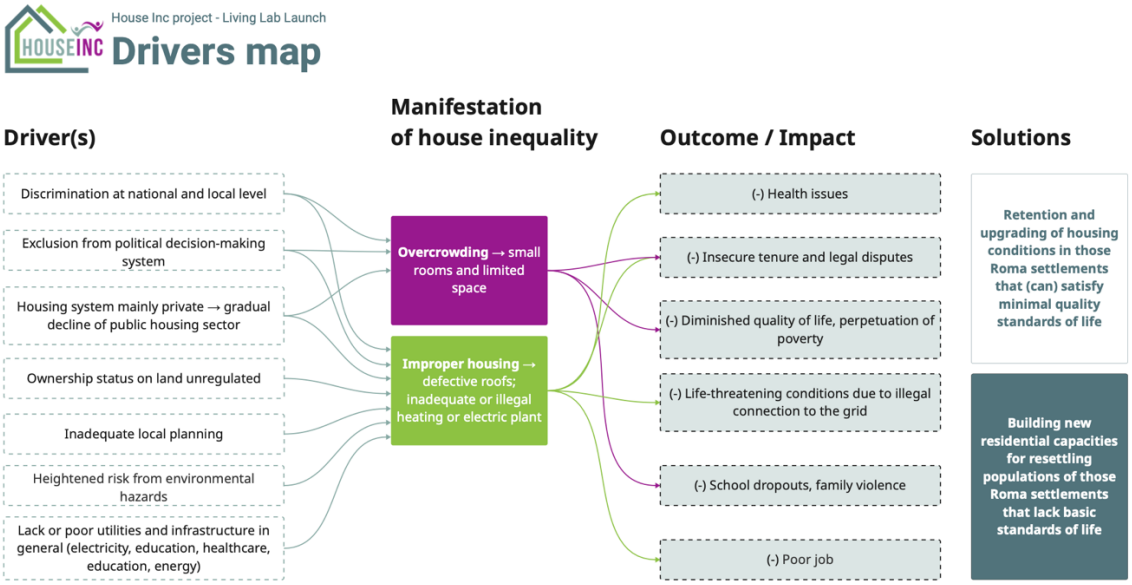


Figure 3 - example of Drivers' map in Dărvari

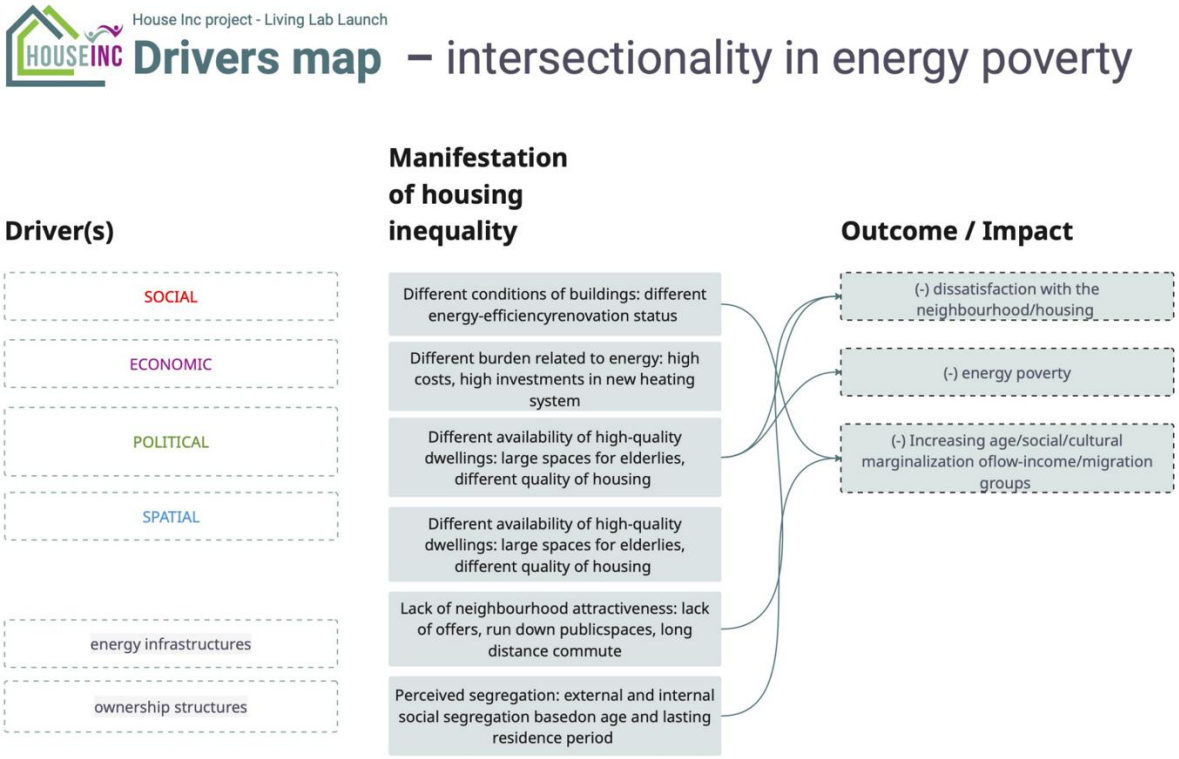


Figure 4 - example of Drivers' map in Vogelstang

Canvas or template:
Four driver maps were produced for all the cases and used to support the different activities within the Living Lab launch workshops and the capacity building pilot activities.

d) Stakeholder mapping

Stakeholder mapping is used in the Foundation level to identify and prioritise the actors that are most relevant for a specific housing inequality driver, with the explicit purpose of informing the design and composition of the Living Labs and its main activities. This activity focuses on understanding who needs to be involved to ensure meaningful analysis and feasible discussion of potential solutions.
Participants work on identifying key stakeholders across public authorities, housing providers, social services, NGOs, community organisations, and, where relevant, resident groups. Attention is paid to actors' roles, influence, and interest to the selected driver (influence/interest map), as well as to their capacity to contribute data, operational knowledge, or lived experience.
The outcome of this activity is a prioritised and justified list of stakeholders, which can be used to define invitations to Living Labs and clarify which perspectives may be missing. This helps avoid both overly narrow participation and unmanageable stakeholder constellations, while supporting a focused and productive Living Lab process.

Use in case studies:
Stakeholder mapping was systematically used in the HouseInc case studies to identify and select participants for Living Lab activities, ensuring a balanced representation of institutional, operational, and community perspectives. After a preliminary list was drafted, stakeholders were organised into a interest/influence matrix, following D8.4 instructions (see Annex 1).

6.3 TOOLS FOR THE COLLABORATION LEVEL

Tools supporting the Collaboration level are designed to strengthen the capacity of different actors to work together around shared evidence and common objectives. At this level, analytical capacity shifts from individual understanding to collective sense-making, coordination, and co-design. The tools presented here are intended to structure interaction, align interpretations of housing inequalities, and support the identification of coordinated pathways for action.
Both tools described below were developed within the project and tested in Living Lab activities. They are meant to be used once priority drivers and analytical foundations have been established, and when the challenge lies in integrating perspectives, negotiating priorities, and translating evidence into shared directions.

a) Participatory mapping

Participatory mapping is used to collectively interpret spatial evidence by integrating data-driven analysis with local and experiential knowledge. In the Collaboration level, this tool goes beyond preliminary validation and becomes a structured co-analysis exercise, where participants jointly map drivers, manifestations and even qualitative information. Participants work together to locate issues, relationships, and gaps, using maps as a shared reference point. The process helps align different interpretations of the same territory, surface mismatches between data and lived experience, and create a common analytical language across organisations and roles. Participatory mapping is particularly effective in multidisciplinary groups, as it allows technical and non-technical actors to engage on equal footing.

Use in case studies:
Participatory mapping was applied in Living Lab activities across all the HouseInc case studies to support shared diagnosis of housing inequalities and to connect quantitative indicators with local knowledge and lived experience. In particular, the mapping session involved the identification of missing data (e.g. services, key points) and experiential-related information useful to better understand the housing inequalities drivers and manifestation.

Canvas or template:
A participatory mapping canvas was developed and tested within the project to guide collective analysis, including prompts on drivers, spatial patterns, affected groups, and missing elements.

In both Dărvari and Vogelstang, participant with facilitator support annotated georeferenced service map reflecting on different things. Dărvari focused on service exclusion, like settlement boundaries (challenging official underestimation of area); service access barriers; discrimination experiences (shops, schools, hospitals far away from the area); infrastructure gaps. In Vogelstang participants marked neighbourhoods to write notes creating a diagnostic map of additional data needed to translate vulnerability identification into actionable planning.
Integration of practitioner's knowledge with official geographic data produces shared understanding otherwise invisible in administrative records.

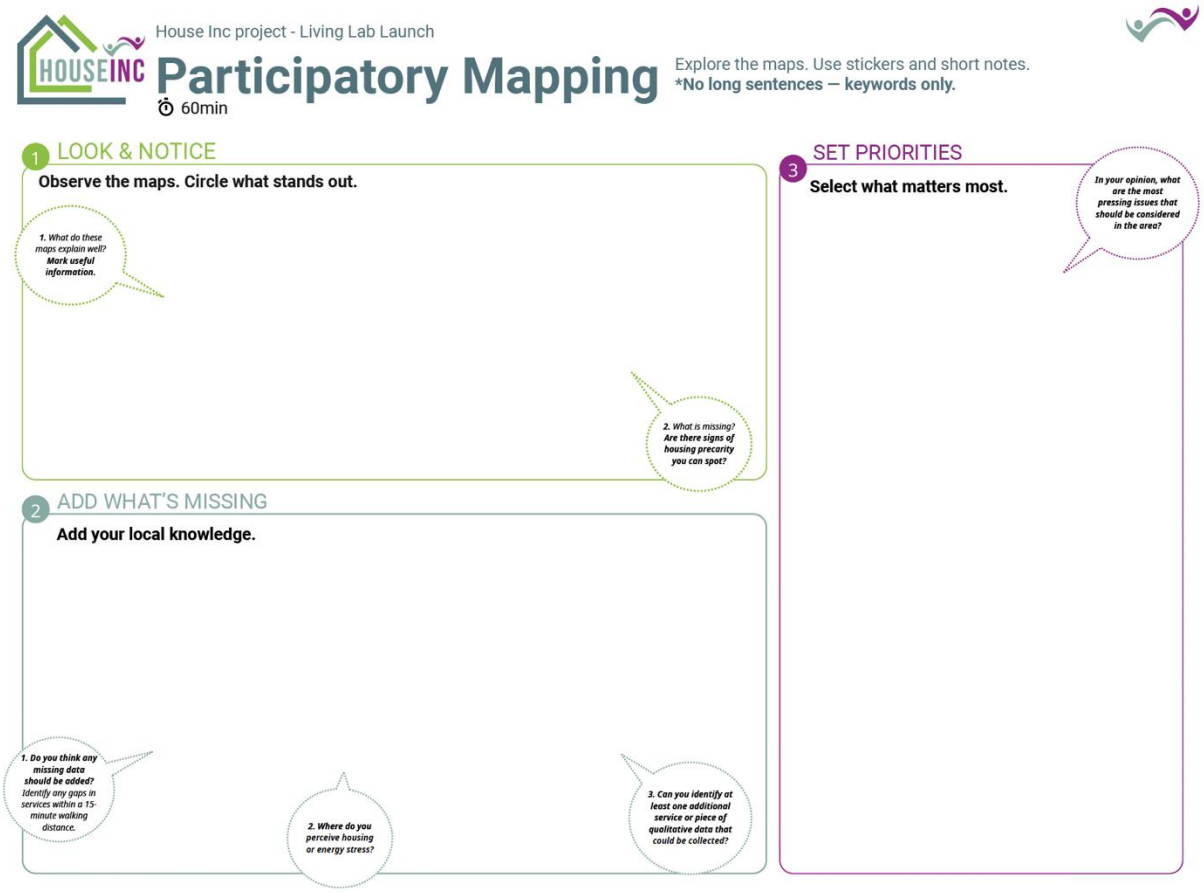


Figure 5 - template for the participatory mapping activity

b) Pathway of Transition

The Pathway of transition is used to translate shared analysis into coordinated directions for change, while remaining flexible in relation to different local objectives and constraints. The tool can be adapted to support different types of collaborative work within Living Lab processes. In some contexts, the Pathway of transition is used to structure discussion around potential solutions to specific issues, in other contexts it can be used for broader

topics and generic reasoning. In the first case, participants work together to identify sequences of actions, enabling conditions, and responsibilities needed to address a selected driver, distinguishing between short-, medium-, and long-term steps and acknowledging interdependencies across governance levels.
In the other case, the tool functions as a meta-tool for process planning and it is used to jointly define how the Living Lab itself should progress, helping stakeholders agree on priorities, additional analyses to be carried out, actors to be involved, and follow-up meetings or activities. In this use, the focus shifts from defining solutions to aligning expectations, clarifying roles, and sequencing collaborative work through time.
This flexibility makes the Pathway of transition particularly useful in settings characterised by fragmented responsibilities or uncertainty about next steps. By making assumptions, dependencies, decision points explicit, the tool supports negotiation, and prioritisation, while sharing ownership of both outcomes and processes.

Use in case studies:
The Pathway of transition was applied in different ways across the HouseInc case studies, both to explore coordinated responses to housing inequalities and to co-plan subsequent Living Lab activities with stakeholders.

Canvas or template:
A Pathway of transition canvas was developed within the project and can be directly used to facilitate both solution-oriented and process-oriented discussions.

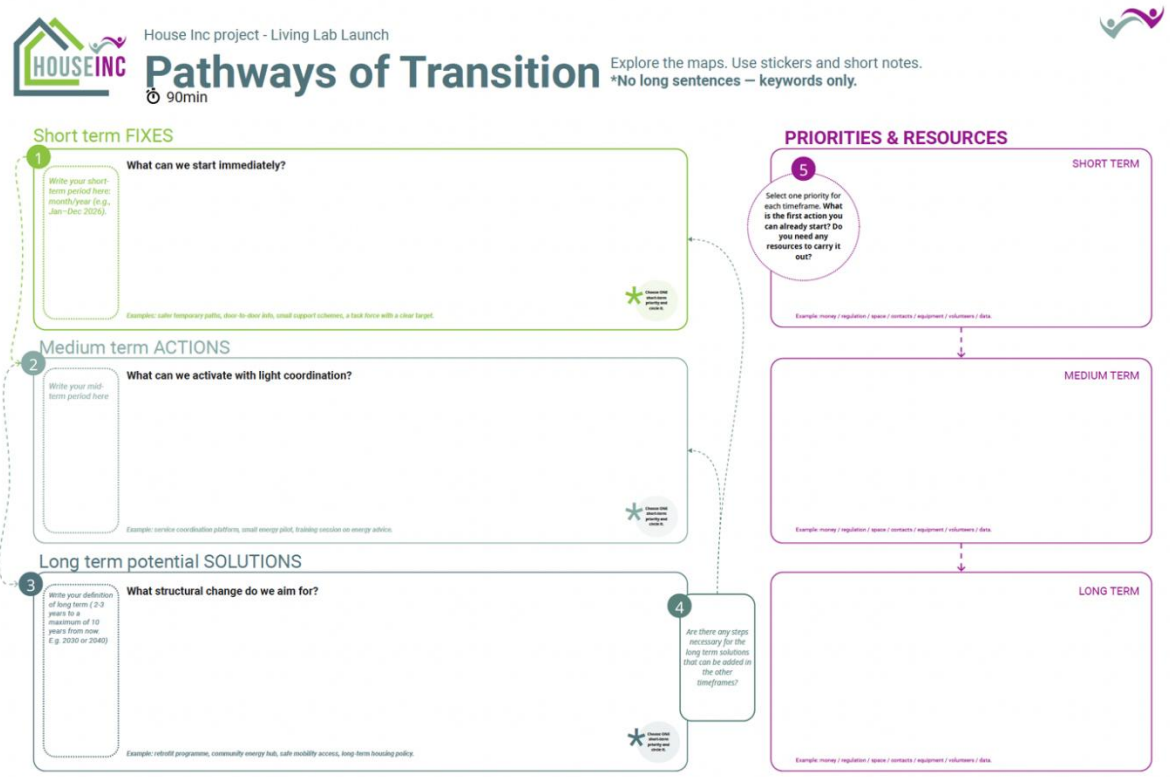


Figure 6 - template for the Pathway of Transition activity

In the case of Darvari, the Pathway of Transition canvas enabled two working groups to structure their thinking across short-, medium-, and long-term timescales.
Immediate actions (0-3 months or one year) > Medium-term (3-12 months or 2-3 years) > Long-term (5 or 10 years)
Facilitators must actively validate community knowledge as equal to technical expertise, preventing official knowledge from dominating interpretation especially in the definition of the scope of the pathway.

6.4 TOOLS FOR THE AMPLIFICATION LEVEL

Tools supporting the Amplification level are designed to strengthen the capacity to engage with communities and to amplify their perspectives within housing policy processes. At this level, analytical capacity is not used only to support internal understanding or coordination among stakeholders, but to make housing inequalities visible and legitimate through narratives developed with and towards exposed communities.
The Amplification level explicitly focuses on community empowerment. Tools are used to create spaces (physical and virtual) where residents and community groups can express and reflect on housing inequalities, and actively contribute to shaping narratives, priorities, and

actions. Storytelling plays a central role in this process, especially as a method for sense-making and collective agency.

a) Storytelling and community empowerment activities

Storytelling-based activities are used to translate analytical insights into accessible and meaningful narratives, connecting evidence with lived experience. In the Amplification level, the objective is empowerment: enabling communities and stakeholders to articulate housing inequalities in their own words and from their own perspectives.
Several activities can be used at this stage, either as stand-alone exercises or in combination. A short list of them:

- Narrative reframing and experience-based storytelling, where participants collectively rephrase analytical findings into short stories, messages, or statements addressed to specific audiences (e.g. policymakers, residents, media). This approach can be applied to maps, infographics, but also pictures. A particularly interesting exercise is to make people draw their neighbourhood or bring with them pictures of their most valued/conflictual spot in the neighbourhood. These types of activities might also be done with communities and community representatives.
- Message prioritisation, where groups discuss which narratives are most effective for raising awareness or triggering action, and which risks of simplification or stigma should be avoided. This might be an activity best suited for stakeholders rather than the communities themselves.
- Scenario-based collective reflection, where participants explore a small set of plausible future scenarios to discuss how narratives, actions, or campaigns might evolve under different conditions, and to support prioritisation and collective positioning without requiring agreement on a single outcome. This activity is particularly useful when multiple perspectives coexist and strategic choices need to be tested before moving to implementation.

b) Emotion photo reflection

Emotion photo reflection is a tool used to work directly with people (might be communities and stakeholders as well) through visual and emotional engagement. Participants are invited to select or bring photographs that represent how housing inequalities affect them or their communities or to freely reflect on pictures (they can be both of the specific environment or not). These images are then used as prompts for reflection and discussion. The tool helps surface emotional dimensions that are often absent from quantitative analysis, supporting deeper understanding and empathy across stakeholder groups. It might be particularly effective in mixed settings involving residents, practitioners, and policymakers. And it can give insights useful to complement data-based maps and infographics but also to verify and complement drivers and manifestations of housing inequalities.

c) Pathways of transition

At the Amplification level, the Pathway of transition tool can be applied beyond solution design to support storytelling, prioritisation, and collective positioning. In this use, the focus

is on clarifying how narratives, campaigns, or engagement actions can evolve over time, identifying key messages, audiences, and moments for intervention.
This application is particularly useful when the objective is to align stakeholders around shared communication strategies or to plan advanced Living Lab phases focused on visibility and mobilisation.

Use in case studies:
The Pathway of transition was used in some contexts to structure storytelling trajectories and to plan subsequent Living Lab activities oriented towards amplification and outreach.

Canvas or template:
The Pathway of transition canvas can be reused and adapted for this purpose.

d) "Co-design a campaign!" activity

The tool supports stakeholders (also with community representatives) in jointly defining a communication campaign. It helps structure the different phases of a campaign and translate analytical insights on housing inequalities into clear messages and feasible actions. The campaign can be of different types, from communicating a normative shift or the presence of incentives for housing inequalities, to a new procedure or a new instrument that might support communities. It can be seen as a first solution-based approach to directly communicate with communities, a key message that might be important for them.
The tool guides participants in clarifying the objective of the campaign, identifying target audiences within exposed communities, defining key messages, selecting appropriate channels, formats, and timing. It also supports reflection on resources, roles, and responsibilities, helping align ambitions with practical constraints.
Participants explore alternatives, discuss priorities, and converge on shared choices using simple decision-making methods such as prioritisation grids, voting mechanisms, or role-based discussions. This supports shared ownership of the campaign and increases coherence across actors involved.

Use in case studies:
The tool was used in some HouseInc Living Labs launch workshops to support the identification and planning of communication campaigns, building on shared analytical findings.

Canvas or template:
A campaign co-design canvas was developed within the project and can be directly used to support planning activities.

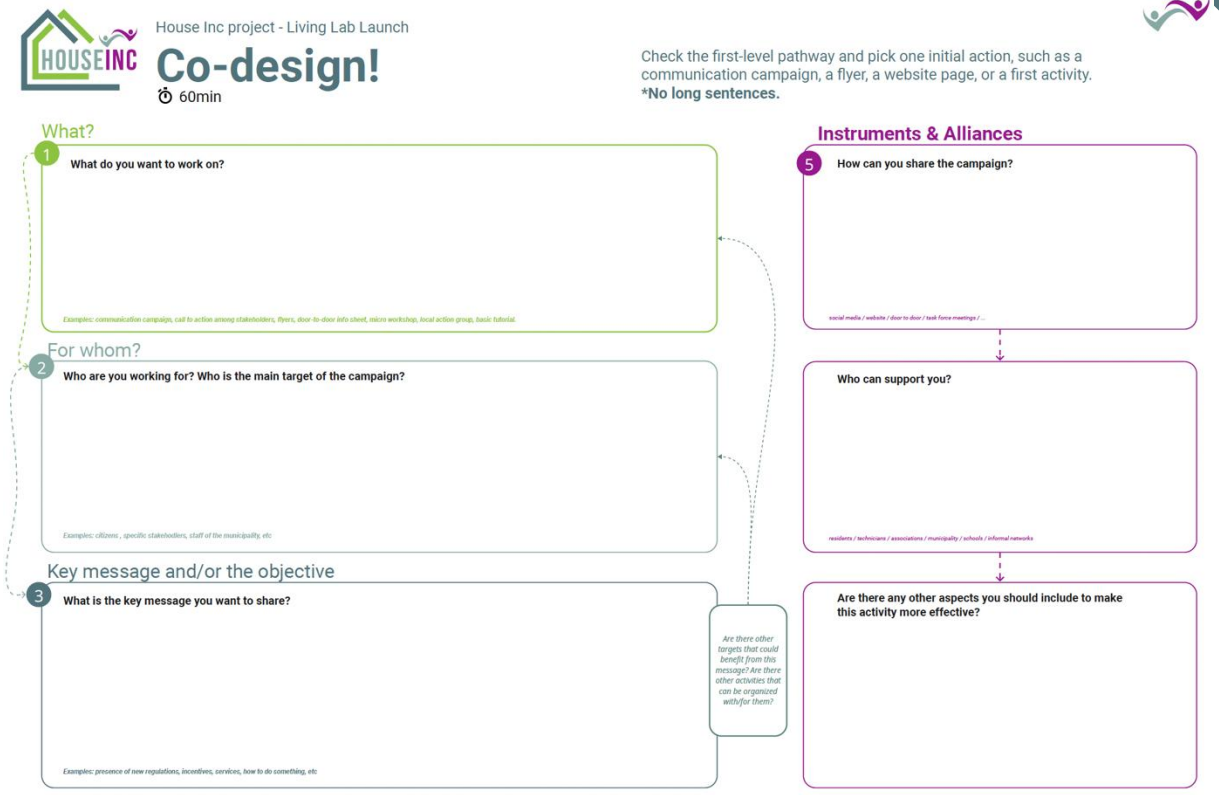


Figure 7 - template for the co-design of a communication campaign activity

In Vogelstang, the participants co-designed target audience, communication channel, institutional partnership and resource requirements of a campaign. This context-specific solution, although defined within institutional-only setting was aimed at enlarging the conversation around the intersectionality of housing affordability issues to a largest parts of the community affected.

7 TESTING AND RESULTS: reflections on the application to the case studies, transferability framework and scaling

This section documents the **design, implementation, outcomes, and lessons learned** from capacity-building workshops in two HouseInc pilot sites. This chapter presents the HouseInc capacity-building framework (Ch. 5) and tools (Ch. 6) grounded in established methodologies (Ch 2) and diagnostic approaches (Ch 3-4) and how that framework operates in practice. The capacity building testing activity was incorporated in the Living Lab launch workshop, which will be fully reported in D6.3. While the capacity-building component focused on strengthening the analytical dimension and the Living Lab component on co-designing solutions, they were combined into a single workshop day to avoid overburdening community members with multiple separate meetings and to make the best use of their collaboration. Among the four HouseInc case study Living Lab launch workshops, two pilots (Dărvari and Vogelstang) therefore included a tailored capacity-building activity within their programme.

7.1 PILOT CAPACITY-BUILDING WORKSHOPS: DĂRVARI AND VOGELSTANG CASE STUDIES

HouseInc project operationalized its capacity-building framework through two **pilot Living Lab workshop activities** conducted in distinct European contexts: Dărvari (Romania) on October 22nd 2025 and Vogelstang (Germany) on November 18th 2025.
The workshops served as critical testing grounds for translating the **analytical capacity-building scheme** into practice, bridging the diagnostic and case-study based insights emerging from WP5 with the policy co-design methodologies of WP6. The workshops engaged diverse stakeholder groups (policymakers and local authorities, housing association, community organizations) in structured participatory exercises, aimed at understanding how communities and institutions can build capacity to address housing inequalities while simultaneously piloting the toolkit's core components
to transfer the evidence to policy, societal and business stakeholders interested in finding solutions for the different housing needs.
A preliminary brief containing Capacity Building workshop instructions (Annex 3) was sent to the case study leaders in September 2025 to confirm their availability act as pilot cases for the toolkit. The brief included an explanation of the task, how the task fit in the overall project structure, a glossary, a draft proposal for the main goal and expected outputs of the pilot workshops (in Dărvari and Vogelstang).
Afterwords, a preliminary draft and agenda of the two pilot workshops (included as activities into the Living Lab launch workshop) together with a series of templates accompanying the work were sent to case study leaders of both case studies. They included:

- Case study guidelines (Annex 5). It includes the proposed agendas and detailed methodologies for the Living Lab (including capacity building activities for both pilots).
- Suggested Toolkit (Annex 4). A comprehensive collection of all methodologies designed and suggested for the four HouseInc Living Lab launch workshop including the capacity building one.
- CANVAS. A folder containing all the Canvas templates suggested to use during the workshop launch: the HouseInc conceptual framework infographic; the case-related

driver's map; the English canvas for the Living Lab activities including the capacity building workshop.
- A Report Guideline template.

The workshops employed a consistent but locally adapted methodology centered on three complementary activities: (1) Participatory Mapping to visualize local housing challenges spatially, (2) Pathway of Transition exercises to develop action plans across temporal and systemic scales, and (3) Co-Design activities to prototype immediate interventions. This progression aligned with the diagnostic literacy framework outlined in Section 3, translating evidence into actionable understanding through iterative stakeholder engagement. Differently from the other case studies, Dărvari and Vogelstang piloted the co-design activity, specifically designed to test the capacity building toolkit into precise contexts.

7.1.1 DĂRVARI CASE STUDY: INFORMATION CAMPAIGN AS DIAGNOSTIC PRACTICE

Dărvari is a marginalised settlement within the municipality of Ciorogârla (RO) where several households live in informal or semiformal housing and face cumulative disadvantages in access to basic services, legal documentation and safe infrastructure. In this context, the Living Lab launch workshop engaged a mixed group of municipal officials, NGO practitioners and community representatives from the informal settlement, facilitated by Politeia and Enpg team. **The workshop operationalized Levels 1-2 and partially n. 3** through the prototype of a capacity building solution (Chapter 5.2**), of HouseInc Capacity building framework.**

This practitioner's composition created a direct interface between institutional knowledge and lived experience of housing deprivation.
Within this solution-oriented Living-lab activities, the Participatory Mapping exercise let participants to visualise how gaps in local services and infrastructure (health, social spaces, electricity, water, sewerage) clustered along the district streets, and to connect these material deficits to underlying legal-administrative barriers such as missing property documents, unclear land status and lack of official addresses. This collective diagnosis shifted the discussion from isolated problems to **interdependent drivers of inequality** and prepared the ground for the Pathway of Transition work, where two groups articulated place-based and institutional pathways of change: one specifying **short-, medium- and long-term local interventions** (from basic documentation support and completion of electricity connections to modular social housing and expanded mediation services), the other outlining **parallel governance and regulatory reforms** (better data on disadvantaged populations, revised emergency aid mechanisms, flexible rules for utility connections, and longer-term land and inheritance reforms). Together, these activities operationalised and tested the Living Lab's solution-oriented logic by linking concrete local measures with enabling institutional changes, while the more detailed co-design of specific interventions was carried forward within the capacity-building testing component.

Figure 8 - working sessions at the capacity building workshop in Dărvari

Figure 9 - working sessions at the capacity building workshop in Dărvari

The co-design exercise converged on an **information and awareness campaign targeting energy precarity,** specifically addressing access to existing social services and state-supported energy and heating aid. The campaign explicitly responded to a shared diagnostic insight: residents experienced access barriers not primarily because services were unavailable but because **service information** was inadequately communicated and procedurally complex.
The campaign co-design reflected the participant understanding of local communication channels and social structures: door-to-door outreach through trusted community

members, meetings at the social center and school, digital leaflets, and short videos on social media platforms (particularly TikTok). Implementation involved partnerships among local authorities, community representatives, and NGO mediators.

The campaign co-design has been considered as a representative entry point for continued engagement with the community on the energy precarity subject.

Furthermore, the campaign represented **applied diagnostic literacy**: translating data-driven insights about energy precarity into community-facing communication that addressed actual information barriers, not merely individual knowledge deficits. It recognized **capacity building as social practice**, requiring trusted local voices and familiar institutional channels.
Participant engagement remained strong throughout the activities, particularly among local authorities and NGO representatives. The diverse composition of the practitioners (community members, officials, and service providers) created productive tension enabling both local problem recognition and systemic institutional perspective. Local authorities demonstrated concrete **accountability commitments**: prioritizing identity documentation processes, advancing electricity connections, and **initiating the information campaign** as immediate action.
Participants expressed readiness for continued Living Lab involvement through follow-up meetings and collaborative problem-solving, indicating that the workshop successfully modelled capacity building not as expert training but as **collaborative problem-definition and collective action planning**.

7.1.2 VOGELSTANG CASE STUDY: INFORMATION SHARING VIA ACTIVE MOBILITY

In Vogelstang, a working-class neighbourhood in Mannheim (DE) the Living Lab launch workshop brought together five municipal officials from the departments of Labour and Social Affairs, Climate, Nature and Environment, the Climate Protection Agency, Democracy and Strategy, and Geoinformation and Urban Planning, facilitated by the Fraunhofer ISI research team.
All participants worked for the City of Mannheim, but none had direct professional experience in Vogelstang and they had not previously worked together, which turned the workshop into a space for internal cross-departmental learning as well as thematic discussion. **This is one of the main reasons why the workshop operationalized mainly Level 2 (Chapter 5.2) of HouseInc's Capacity building framework.**

Using recent HouseInc survey findings on energy affordability in Germany and preliminary results from the Vogelstang case study as a starting point, the group engaged with the **HouseInc Energy Map as a shared diagnostic tool**. They used it to locate potentially vulnerable households and neighbourhoods and to critically examine indicator selection, data quality and weighting, questioning, for example, the limited value of simple population density, the exclusion of informal and low-paid work from employment indicators, and the risk of aggregating several indices into a single vulnerability score that might hide important differences. Participants pointed to missing data on tenure type, heating infrastructure and

complex ownership structures, stressing that these gaps would strongly shape which energy-related interventions are realistic and for whom.
This critical and technically informed discussion gradually shifted the atmosphere from initial scepticism about "energy poverty" as a distinct policy category toward a more precise understanding of how **household-level vulnerability, neighbourhood patterns and municipal planning instruments intersect**. It also surfaced the impact of recent municipal budget cuts, which many participants described as a restraint on more ambitious, structural interventions and as a reason why existing plans remained "in a drawer" awaiting funding. Within this constrained context, the subsequent Transformation Pathways exercise concentrated on short- and medium-term, low-cost ideas such as information and advice campaigns, voluntary energy counselling and behavioural incentives, while broader strategies that would link the district's public renovation plans to private household upgrades were recognised as important but remained aspirational due to fiscal and governance limits.

The **co-design exercise** identified an information campaign using a city-owned cargo-bike to disseminate information about energy consultation support and efficiency renovation resources. This solution aligned with participant aspirations for **individual behavioural change while remaining administratively feasible within budget constraints for infrastructural change** and implementable through inter-departmental coordination (Climate, Nature and Environment Department with Democracy and Strategy Department). However, the solution also exemplified a diagnostic limitation: addressing information barriers without addressing underlying structural barriers (complex ownership preventing collective renovation, limited municipal funding for renovation support, energy infrastructure inadequate for efficient heating across tenure types). The cargo-bike campaign represented a "within-system incremental change" rather than transformative structural reform, placing responsibility on individual households to respond to information rather than on institutions to restructure energy access systems.

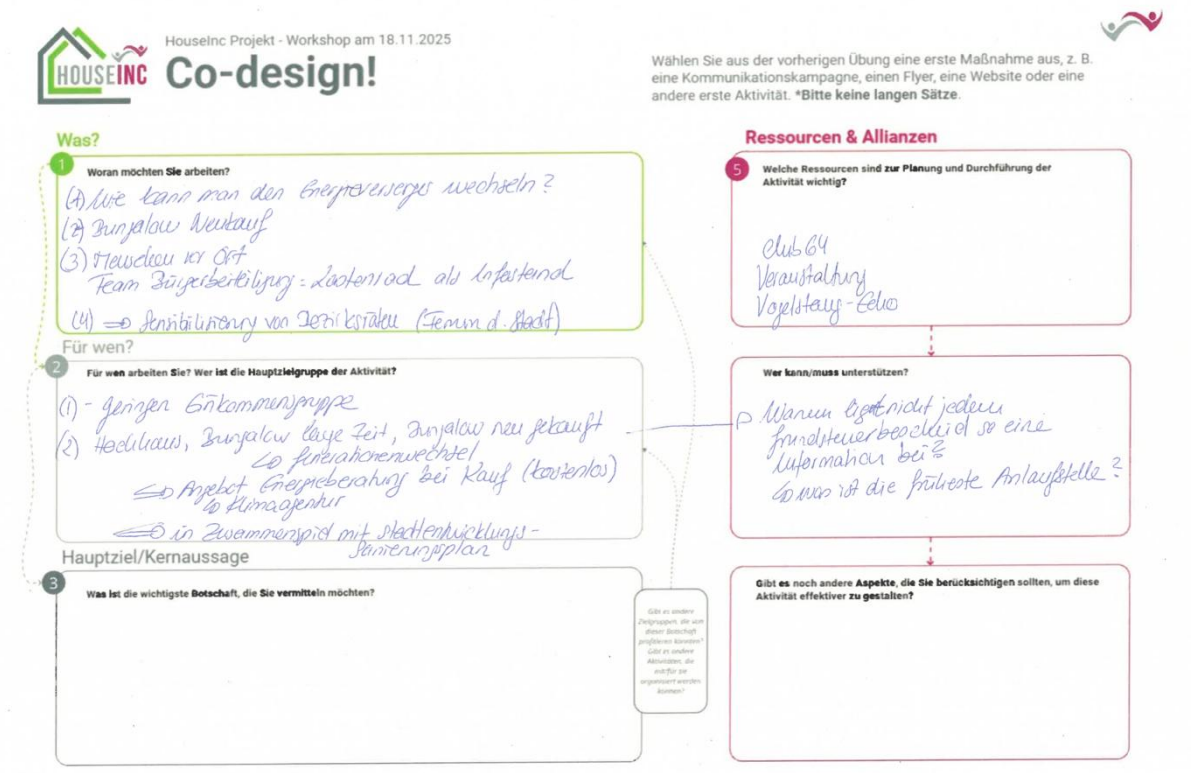


Figure 10 - working template filled in during the capacity building workshop

Framed within the Living Lab approach, these activities functioned as a first, solution-oriented step: they clarified how different departments perceive energy-related housing vulnerability, identified practical constraints and missing data, and opened channels for cross-departmental collaboration. The more detailed co-design of concrete campaigns and interventions, such as neighbourhood information activities using existing municipal resources, was then taken forward within the dedicated capacity-building testing component, which builds directly on the diagnostic groundwork laid during this launch workshop.

7.2 COMPARATIVE ANALYSIS

The two case studies' pilot workshops, although incomplete due to the small practitioner's attendance and limited time, revealed some lessons on how the diagnostic capacity building responds to contextual conditions, to stakeholder configuration and to structural constraints, producing diverse outcomes, as shown in the table below.

Table 5 - synthesis of the pilot workshops insights

Dimensions	Dărvari	Vogelstang
Stakeholders	Community-institutional bridge (residents, officials, NGOs)	Intra-municipal cross-departmental (city employees only)
Contextual knowledge	Members of the community, high knowledge of the area	Public officials, knowledge of city-level issues, not at local level
Diagnostic insight	Legal-administrative barriers as housing deprivation as root cause	Structural tenure complexity and fiscal constraints limiting energy transformation
Intervention focus	Multi-scalar: immediate administrative unblocking + systemic institutional reform	Local and city-based: within-system behavioural incentives + inter-departmental coordination
Main goal for the context	Structural equity: housing informality legalization, service access universalization	Incremental efficiency: information provision, voluntary participation
Capacity built	Community and institutional recognition of interconnected barriers; local-systemic action scaling (Level 1+2+ partially 3)	Municipal cross-departmental knowledge integration and policy-technical indicator discussion (Level 2)
Tools used	Participatory Mapping Pathway of Transition Co-Design a campaign!	Participatory Mapping Pathway of Transition Co-Design a campaign

The pilot workshops generated several lessons for scaling capacity-building practice, which can be synthetizes in the following points.

The first lesson is that **structural realities shape capacity-building outcomes and ambitions**. In Dărvari, the workshop started opening a pathway toward structural transformation, from immediate administrative unblocking to long-term reforms on land registration and housing rights. Dărvari workshop achieved diagnostic precision identifying legal-administrative-infrastructure barriers to energy adequacy but its proposed information campaign primarily addresses household knowledge barriers, which is certainly insufficient for systemic energy precarity resolution. The information campaign can be a foundation-level intervention enabling household capacity (learning about existing services) while organizational and systemic interventions target corresponding structural scales.
In Vogelstang, the outcome was a pathway centred on information provision and voluntary behavioural change, constrained by recent municipal budget cuts, complex ownership structures that hinder coordinated renovation, and the recognised lack of external funding for infrastructure investment.
A capacity-building programme must therefore assess structural enablers and blockers honestly, avoiding aspirational plans that participants immediately perceive as unfeasible. Its design must recognize unfeasible, undermining credibility and participant commitment. Programmes must explicitly evaluate whether proposed solutions match identified driver scales and acknowledge when solutions are partial/insufficient, requiring bundled multi-level intervention.

A second point regards the **diversity of included stakeholders**. Community-inclusive workshops in Dărvari generated diagnostic insights about how administrative barriers

constitute housing deprivation, insights available only from lived experience perspective of documentation requirements, bureaucratic procedures, and service access denial. In Dărvari, residents and officials occupied a shared space where community members could articulate how systems experienced as technical by administrators, function as exclusionary barriers for affected populations. Intra-institutional workshops (Vogelstang) produced different but equally important diagnostic work: cross-departmental knowledge integration revealing municipal silos, critical technical discussion interrogating indicator selection and weighting, and explicit naming of structural barriers (complex ownership preventing coordinated renovation, funding constraints limiting infrastructure investment). However, this diagnosis was clearly limited by the absence of community voices. Taken together, the cases show that effective capacity building requires **intentional and context-sensitive stakeholder diversity** aligned with local forms of housing inequality.

Power relations were present in both workshops: between residents and municipal officials in Dărvari, between departments in Vogelstang, and between technical experts and practitioners in both. Effective capacity building helps participants recognize how different institutional positions and expertise bases produce different diagnostic visibility of housing problems. What residents experience as exclusion from service access may remain invisible from an administrative perspective focused on regulatory compliance; what appears as individual behavioural deficit in household-level policy analysis may be recognized by communities as systemic infrastructure failure requiring institutional rather than individual response. Dărvari achieved this partially through simultaneous pathway specification (officials committed to short-term actions), suggesting capacity building succeeded when it produced visible power rebalancing. Vogelstang's intra-institutional focus limited diagnosis to administrative coordination without community voice rebalancing, creating diagnostic clarity but constrained re-distribution. What residents experience as exclusion may remain invisible from an administrative perspective, while what appears as an individual behavioural deficit in policy analysis may be recognised by communities as systemic infrastructure failure. These position-specific perspectives are complementary diagnostic lenses, each capturing real dimensions of housing inequality that others overlook. Effective capacity building structures dialogue where these different perspectives illuminate rather than contradict each other.
This links to a third lesson, concerning **facilitation methods that privilege critical dialogue over expert authority**. In Vogelstang, scepticism about the term "energy poverty", about indicator choice and weighting, led to a more nuanced understanding of policy-technical fit and data limits than uncritical acceptance of the Energy Map would have allowed. In Dărvari, the visible willingness of local authorities to act signalled genuine responsiveness and created conditions for open exchange rather than symbolic participation. These dynamics show that participants build diagnostic capacity through critical engagement with evidence and through visible commitment, not through passive reception of expert conclusions. Programmes should therefore allocate time for disagreement and alternative interpretations to emerge and be worked with, making uncertainty a productive part of diagnostic thinking.

A final lesson concerns **institutionalisation of outcomes**. Both workshops achieved a good level of diagnostic clarity: Dărvari participants showed how legal-administrative barriers and

infrastructure deficits combine to produce deprivation; Vogelstang participants clarified how tenure structures and fiscal constraints limit energy transformation. However, the translation of this understanding into action diverged. In Dărvari, the Pathway of Transition exercise led to concrete short-term commitments (identity documents, electricity connections) and medium-term reforms (emergency aid rules, urban plan revision), anchored in clearly assigned responsibilities and follow-up mechanisms. In Vogelstang, the recognition that many plans were "sitting in a drawer waiting for funding" reflected a realistic view of limited capacity but also risked leaving structural barriers at the level of analysis, without clear pathways to implementation. This contrast underlines that diagnostic work must be coupled with **institutional commitment and clear action routes** if capacity-building efforts are to move beyond insight to tangible change. Furthermore, the pilot workshops revealed a critical operational tension regarding Level 3 (Amplification) capacity, the transformative dimension where capacity building enables institutional and social transformation beyond technical competency development. Both pilots encountered distinct but interconnected limitations operationalizing this level, raising fundamental questions about whether Amplification inherently requires community presence (as in Dărvari) or whether alternative institutional pathways exist, like in Vogelstang, where the participants operated within intra-institutional contexts through municipal staff developing strategic communication capacities, designing compelling narratives for departmental advocacy advancing housing-climate policy integration, both activities aligned with "strategic communication" and "mobilization" descriptors of Amplification level, but operating within government structures rather than community contexts. Capacity building programmes must acknowledge this and design accordingly: either structuring workshops as community-led spaces where institutions participate as co-learners or framing them as institution-facilitated capacity development with explicit acknowledgment that such facilitation carries inherent power limitations.

7.2.1 TRANSFERABILITY FRAMEWORK

The pilot workshops reveal a critical distinction for practitioners scaling capacity-building work: certain methodological elements transfer directly across contexts, while others require deliberate local customization. Understanding this distinction is essential for effective replication. The pilot workshops generated several lessons for scaling capacity-building practice, which can be synthetizes in the following points.

- Diagnostic frameworks (identifying drivers across household/building/neighbourhood/policy scales; distinguishing modifiable vs. structural barriers) are transferable because they reflect housing inequality's actual multi-scalar nature, not context-specific features. This framework provides language for precise problem-naming regardless of local manifestation and applies equally to energy poverty, affordability, accessibility, or other inequality dimensions.

7.2.2 CONSIDERATIONS FOR THE ANALYTICAL CAPACITY-BUILDING PROGRAMME

The pilots' capacity building workshops operationalised the theoretical bridge between housing inequality analysis and driver identification from WP5 and participatory solution co-

design of Wp6. Translating Wp5 analytical frameworks and findings into participatory workshops, they allowed to prototype (although in a partial way) evidence into action through diagnostic exercises where stakeholders recognized housing complexity in their local contexts and developed context-appropriate answers. Furthermore, participants were encouraged to develop the capacity to recognize and articulate housing inequality drivers beyond symptoms.
Some final considerations can be drawn from this prototipation, which unfolds through six dimensions, regarding programme content, facilitation methodology, management and composition of the participants.

Six Critical Design Principles Derived from the testing of Pilot for the revision of the Capacity building framework:

1. **Add constraint mapping at the beginning of the process as diagnostic content**
2. **Plan institutionalization and resource mobilisation from the start**
3. **Select a wide variety of stakeholders**
4. **Ensure implementation authority participates**
5. **Facilitate critical power-aware dialogue**
6. **Adapt methodology to context**

Programme content
The first one concerns the preliminary mapping and acknowledgement of **structural constraints and limitations** as a diagnostic practice. The exercise of considering large level structural constraints (like fiscal limitations, complex ownerships, regulatory barriers, institutional gaps) as legitimate diagnostic topic can produce more credible actions and maintain commitment through time. The risk of proceeding as if limitation do not exist might produce aspirational, utopian plans that can eventually reduce the fundamental trust necessary to sustain the engagement through time. In the pilots, capacity building workshops amplified diagnostic precision in both contexts but did not overcome structural barriers. Programmes scaling this model must then undertake structural feasibility analysis before workshop design, distinguishing contexts where diagnostic capacity can drive structural change from contexts where capacity building must operate within immovable structural constraints. This distinction should inform programme targeting and outcome expectations: if capacity building programmes cannot overcome structural barriers, programmes must either work on structural change preconditions first or acknowledge capacity building's limited scope.
Another dimension suggests incorporating a **resource mobilisation** training and support into the capacity building sessions. Identifying external funding resources, building political constituencies for investment, planning to manage resources efficiently, leveraging existing assets of economic sustainability, can transform the focus into what could be possible considering the available resources. In Dărvari, participants identified both immediate actions resourced within existing municipal-NGO structures and longer-term reforms requiring external funding and political support, creating a realistic pathway of interventions. In Vogelstang, budget constraints shaped discussions toward identifying what could be implemented through existing city assets (e.g. the cargo-bike initiative) while naming longer-term transformations requiring future funding.

Management and composition of participants

The case studies were representing - in some case - extreme housing vulnerability conditions, hence their considerations might not mirror the most diffuse condition of housing inequality that households experience in Europe. Following this consideration, what stood out in the workshops is the necessity to have a **stakeholder's composition which aligns with local housing manifestations**, rather than a generic blueprint. Capacity building programmes should therefore specify in advance the stakeholder's composition based on specific housing inequality characteristic as a precondition for diagnostic quality and to overcome uniform model risks. A critical point in this pre-emptive selection is the ability to manage a representative sample of the intersectional aspects considered in housing inequality. If not in the composition of participants, intersectionality should be considered as an overarching framework for a justice-oriented programmes, able to disaggregate analysis by multiple identity dimensions simultaneously. For example, Dărvari workshop could have examined how an energy precarity campaign designed specifically addressed single mothers' barriers; or Vogelstang could have examined intersecting elderly with additional vulnerabilities. The programme should eventually be able to measure whether workshop participants developed capacity to identify how multiple identity-based inequalities mix.

Regarding stakeholder participation, another dimension to consider is the **presence of the implementation authority** in the process. Diagnosis would unfortunately remain a fruitful intellectual exercise if not translated into commitment. With implementation authority we intend both officials with budget action, but also organisational directors or managers with programme knowledge and community leaders with outreach capacity. This could change the dynamic from remaining into a static level of diagnosis (even if sophisticated), to move towards a credible commitment to short- and medium-term actions. In order to reach this goals, capacity building activities could establish institutional bridges by connecting analytical insights to organisational practices: this can be achieved for example through transparency and openness mechanisms, like scheduling follow-up meetings, explicit clarification of funding and authority for interventions, specification of which organizations carry responsibility for different components; or through the appointment of participants leaders with accountability, or representative of the participants with the role of bridging the findings to local authorities. These bridges/boundary spanners roles can transform workshop outputs from advisory documents into operational roadmaps.

Facilitation methodology

The last two dimensions emerging as takeaways from the pilot workshops concern the facilitations techniques.

Critical engagement, encouragement to ask radical questions and use of disagreement and conflict as diagnostic resource can be productive and transform capacity building processes into collaborative inquiry where uncertainty and alternative perspectives strengthen rather than weaken diagnostic capacity.

A final consideration regards **methodological adaptation of the workshop formats**. The three-activity structure (Participatory Mapping > Pathway of Transition > Co-Design) proved adaptable across divergent contexts only because each site had preliminary planned information. Scaling this methodology would demand specification of context-specific

adaptations rather than assumption that generic application enables replication. Programmes should include readiness assessment before workshop commissioning, ensuring that institutional commitment, stakeholder availability, and political-fiscal conditions are sufficient for capacity-building engagement different than symbolic participation. Most critically, programme scaling must invest in facilitator development. The methodology's success depended not primarily on activity design or canvas format, but on facilitators' capacity to read local contexts, navigate power dynamics, welcome critical engagement and support honest strategic thinking despite constraints.

These considerations advance this deliverable's core objective of translating evidence of housing inequality drivers into **practical capacity-building programmes** that enable stakeholders to pursue housing justice-oriented policy and practice change. Understood from this perspective, capacity building is inherently political, it can shift power relations, challenge unjust structures, amplify marginalized voices, and demand systemic transformation. It succeeds not through technical neutrality but through honest engagement with structural constraints and power dynamics, through deliberate inclusion of diverse stakeholder perspectives, and through sustained commitment to translating diagnostic understanding into institutional action.

8 CONCLUSION

This capacity-building toolkit translates HouseInc's analysis of housing inequality into practical instruments for practitioners working toward housing equality and justice across Europe. The toolkit aims to operationalize a shift in the **recognition of affected communities and frontline practitioners as diagnostic allies capable of understanding complex housing systems when provided appropriate frameworks, evidence, methodological and facilitation support**.

The toolkit is structured around four dimensions. First, it synthesises evidence from HouseInc multi-level analysis (from Wp3 to Wp5) translating research findings on housing inequality drivers into usable frameworks for practitioners. The six inequality drivers are presented as interconnected dimensions of systemic inequality, with structured tools for understanding how they manifest differently across geographical scales and population groups.

Second, the toolkit operationalises diagnostic literacy as a core capacity, moving practitioners from generic problem recognition towards precise evidence-informed diagnosis. This is a prerequisite for policy design, which needs multi-dimensional interventions.

A third point concerns the toolkit, which provides participatory methodologies for transferring diagnostic approaches to specific contexts and housing inequality manifestation. Tools developed and tested in Dărvari and Vogelstang demonstrate how core methodologies adapt to different contexts while maintaining analytical rigor.

Finally, the toolkit bridges analytical capacity building to solution design and policy making, by preparing practitioners for the evidence-informed co-design work of Living Labs (WP6) and grounding the policy recommendations developed in WP7.

Important limitations and research gaps remain. The toolkit was tested in two diverse contexts (informal settlement governance in Romania; cross-departmental municipal coordination in Germany) but requires validation across additional European housing systems and governance structures.

Additional pilot implementation and comparative analysis would strengthen toolkit guidance, addressing how the methodology can adapt to context with different tenure patterns, institutional configurations, or inequality manifestations.

Another limitation concerns the relationship between diagnostic capacity building and policy outcome, on whether stakeholders who complete capacity-building programmes implement more effective housing policies, which remains undocumented**.** The pilot workshops generated diagnostic clarity and committed action plans; documenting whether these translate into sustained policy change requires longitudinal follow-up beyond current project timelines. European organisations implementing this toolkit should plan for rigorous evaluation of policy outcomes and unintended consequences, contributing to evidence based on capacity-building effectiveness.

This toolkit is offered to European municipalities, housing organisations, local authorities, NGOs, and practitioners working toward housing equity. Practitioners are invited to:

- Pilot the toolkit in their local context, adapting tools and timelines to fit their stakeholder configurations, housing challenges, local constraints and institutional structures. They

can use the guidance in Section 5.2.1 on programme generalization to design implementation appropriate to their context.

- Document their experience and contribute to European learning on housing inequality capacity building. Organisations piloting this toolkit are encouraged to document what works, what requires adaptation, what unintended consequences emerge, and what housing policy changes result from diagnostic capacity building.
- Connect to emerging European networks linking municipalities and organisations working on housing inequality. The HouseInc project is developing mechanisms for continued coordination and learning exchange among stakeholders committed to capacity-building approaches for housing justice. Participating public entities contribute both to local policy development and to European knowledge generation on scaling housing inequality interventions.
- Advocate for policy conditions enabling sustained capacity building. Organisations implementing this toolkit should engage with local/municipal leadership, national governments, and EU policy bodies regarding financing, governance structures, and inter-departmental coordination mechanisms necessary for housing inequality work to extend beyond projects into sustained policy commitment.

The HouseInc project and this toolkit operationalize a different approach: recognizing that effective housing policy requires understanding how multiple drivers interconnect, how institutional positions shape what becomes visible as problems, and how diverse stakeholders bring essential expertise to policy design. This represents capacity building. as **collective diagnostic work** where researchers, officials, practitioners, and affected communities develop shared understanding of complex systems through critical engagement with evidence, acknowledgment of different perspectives, and honest negotiation of competing interests and constraints. When successful, this capacity building becomes foundation for policies grounded in precise diagnosis, realistic about feasibility, attentive to unintended consequences, and capable of sustained implementation through evolving stakeholder commitment.

This toolkit is therefore simultaneously practical guidance for housing practitioners and advocacy for policy conditions enabling transformative capacity building. European municipalities and organisations are invited to implement the toolkit while simultaneously advocating for the institutional support, funding mechanisms, and governance coordination that allow diagnostic capacity building to become embedded in policy practice.

9 ANNEX 1

Stakeholder Mapping Template for HouseInc Living Lab

Case study name: _____
Prepared by: _____
Living Lab expected topic:_____
Living Lab tentative activities:_____

Instructions: This document is conceived to help you identify the critical stakeholders to be included in the Living Lab. We ask you to complete each part of the document, with the help of the following questions (you don't have to answer to them in written form, but just follow them to make a decision on who to involve)

- Who is key in **sharing** your messages with for a multiplier effect?
- Who is key in **receiving** your messages, with an impact on their work?
- Who shares **expertise** that interest our work?
- Who do you think is crucial to involve in the Living Lab?
- Why it is important to involve this stakeholder in the living lab?

Stakeholders can be:

- General public
- Community members and representatives
- Business / investors in the housing market
- Public service providers
- Policymakers
- Municipalities & Regions
- NGOs (e.g., environmental, energy, housing associations, etc.)
- Research organisations

Stakeholder Identification Table

Instructions: please fill in this table with the stakeholders you wish and plan to involve in the Living Lab activities.

Stakeholder name	Organization/Group	Stakeholder category	Expected role in the Lab	Plan to approach them	Contact info	Notes (e.g. ethical considerations, accessibility needs)
e.g. Major of…; president of…;	e.g. Municipality of…	e.g. Community organisations,	Participant, facilitator	e.g. email templates, ideas	no list of contacts with details such as	--

name, surname		Businesses and corporations, Government agencies…	of activities	on messages, pdf about the project in language X, etc.	phones or emails will be prepared for GDPR and privacy reasons. UNIBO maps here stakeholders and their organisations, sharing publicly available data, and invites partners to build and keep their own databases, especially for contacts at local level.	

Stakeholder Influence/Interest Matrix (for additional reference see HouseInc D8.4, chapter 3.4 "Mapping")

"The power/interest grid is a matrix used for categorising stakeholders during a change project to allow them to be effectively managed. Stakeholders are plotted on the grid in relation to the power and interest they have in respect of the project".[1]

Categorising stakeholders this way can allow HouseInc to reinforce its strategies to manage all stakeholders effectively: stakeholders with high power and high interest will have to be engaged with regularly, whereas stakeholders with low power and low interest do not require regular and detailed communication.

Power is significant to influence actions, while interest will be more motivational. The combination of the two creates a powerful approach to bring to light different perspectives, which feed into the stakeholder's process based on different groups. Based on the classification of stakeholders, we can further plan their involvement and engagement in the different project activities.

[1] https://www.improvementservice.org.uk/business-analysis-framework/consider-perspectives/powerinterest-grid

General descriptions and guidance are provided below, for each quadrant:

Manage closely (high power / high interest)

These stakeholders have a significant level of power and are highly interested in the objectives, activities, and solutions offered within HouseInc. These stakeholders are identified to be the key decision-makers and to have significant impact on the outcomes of the project. It is important to manage these stakeholders closely and engage them throughout the process from the beginning to end, not only by getting their input but also involving them in every step of the progress as part of the team.

Keep satisfied (high power / low interest)

These stakeholders have a significant level of power but may not be particularly interested in the objectives, activities, and solutions offered within HouseInc. It is essential to keep the stakeholders in this quadrant satisfied by involving them in the topic. Communication with them needs to be tailored and concise to highlight the relevance and potential impact of an activity emphasising on the achievements. A form of recognition, rewards, or opportunities for collaboration and networking may provide incentives and increase their interest.

Keep informed (low power / high interest)

These stakeholders may not have a significant level of power but are highly interested in the objectives, activities, and solutions offered within HouseInc. The high interest stakeholders in this quadrant need to be kept well-informed about the project or outcomes of the project. Promoting collaborations by providing support in resources, training, or educational opportunities to empower their capacity potential. Additionally, this could involve participation in advisory committees, working groups, or task forces as their involvement provide valuable perspectives in effective decision-making processes and make significant contributions to the project or effort.

Monitor with minimum effort (low power / low interest)

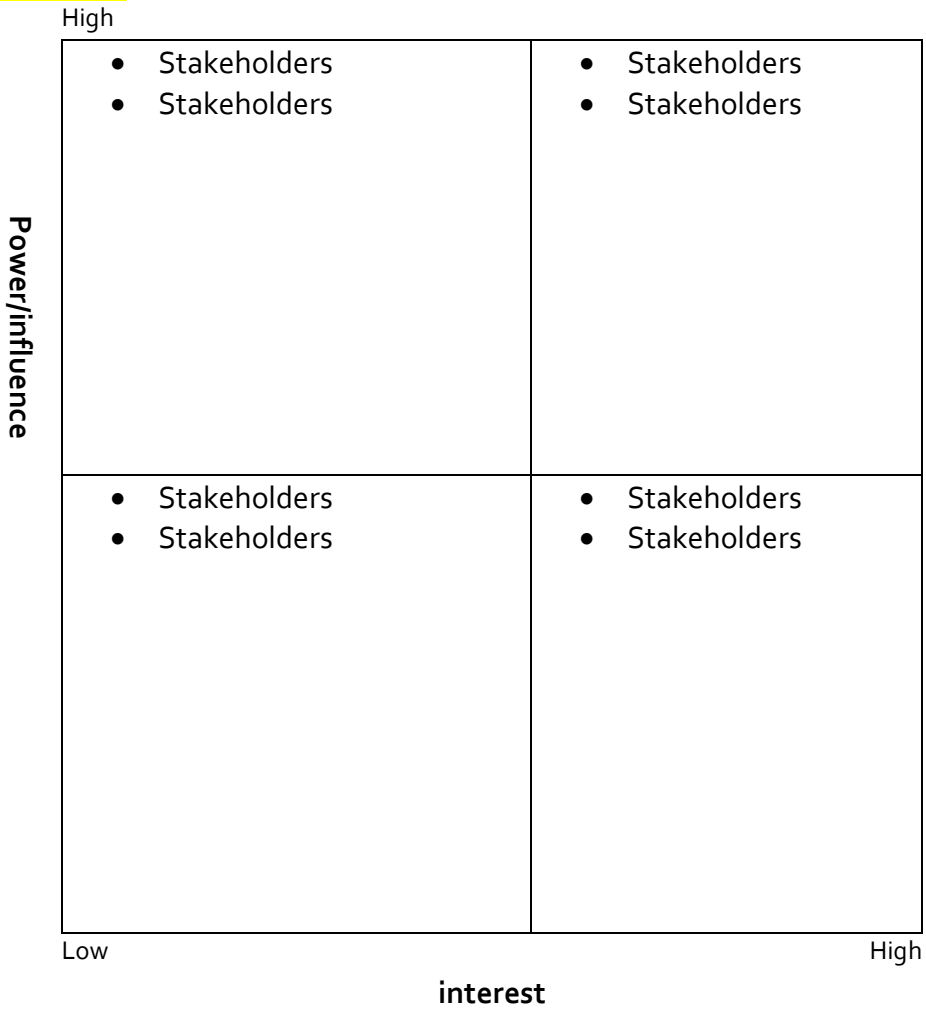
These stakeholders may not have a significant level of power, nor are they particularly interested in the objectives, activities, and solutions offered within HouseInc. Different formats or channels may need to be tailored to the stakeholders of this quadrant that

resonate with them, e.g., face-to-face conversations, small group meetings, or visual infographics on brochures. These stakeholders will be monitored at a minimum effort, engaging them will require simplified and specific tasks or roles with clear benefits to attract their attention. It is advised to let them know that their opinions are valued and taken into consideration.

After using the power-interest grid, you can then progress onto developing appropriate stakeholder management strategies to define each stakeholder's involvement in the project which can also help effectively manage the project.

Stakeholder Power/Interest Table

Instructions: Place each stakeholder into the appropriate quadrant based on their Level of Influence and Level of Interest.



10 ANNEX 2

House Inc Living Lab (LL) and LL launch Workshop

Content of the document:

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What is a Living Lab? 79
The 8 Phases of a Living Lab 79
Roles and responsibilities in the task 81
Glossary and quick information 81

The establishment of the Living Lab is the main activity of T6.2. The aim of the task is to **co-design solutions addressing housing inequalities** - either enhance existing solutions and/or co-create new tailored solutions - by **establishing multistakeholders' Living Labs** with the four case studies. The deliverable D6.2 will be **a revised and enhanced set of solutions to address housing inequalities,** building on the **outcomes of the co-creation activities conducted within the LL Launch Workshops**. The deliverable will:

- explain the general methodology for the Living Lab (8 steps from initiation to replication)
- clarify the objectives of the Living Labs within HouseInc
- synthesize the experiences and results of the co-creation activities performed during the LL launch workshop, emphasizing findings, successful strategies, and potential challenges;
- highlight the future steps of the Living Labs and the link with the policies.

The task works on two levels:

- desk research on the definition of the **Living Lab as a broader participatory framework** that includes 8 steps as shown in the **Figure** below (UNIBO).

- preparation and deployment of the **Living Lab launch workshop** as an operational moment for ground-level engagement and collaborative problem-solving (UNIBO + case studies team).

What is a Living Lab?

The Living Lab (LL) is a methodology, a way of working together with many actors, local authorities, NGOs, communities, researchers, and private actors to co-design solutions for housing inequalities. It is a **step-by-step process** (8 phases). Normally, this would take a long time, but within HouseInc we only test the first three steps.

The **Living Lab Launch Workshop** is a shorter, practical event where we try out some activities of the Living Lab with stakeholders. Think of it as a "mini version" or a **kick-off experiment**.

The LL is like an **ongoing laboratory**, while the Launch Workshop is a **one-day event** where stakeholders test a small part of this process. For example, instead of running a year-long co-design cycle, the workshop will focus on one session of mapping needs and brainstorming solutions.

The 8 Phases of a Living Lab

See Figure1.

1. **Initiation.** Define the main problem and who is involved.
2. **Plan development.** Build commitment and set common goals.
3. **Co-production.** Organize workshops, prototype activities, and start testing.
4. **Implementation.** Put the co-created solutions into practice.
5. **Evaluation.** Assess what works and what doesn't.
6. **Iteration.** Refine solutions and repeat where needed.
7. **Scaling up.** Expand successful solutions.
8. **Replication.** apply the methodology in other places.

In HouseInc, we test the first 3 phases and propose a first set of new or revised solutions for the case study housing inequalities, but this activity will be able to set in motion a process that can become stable and include future further activities (among those already identified by the project).

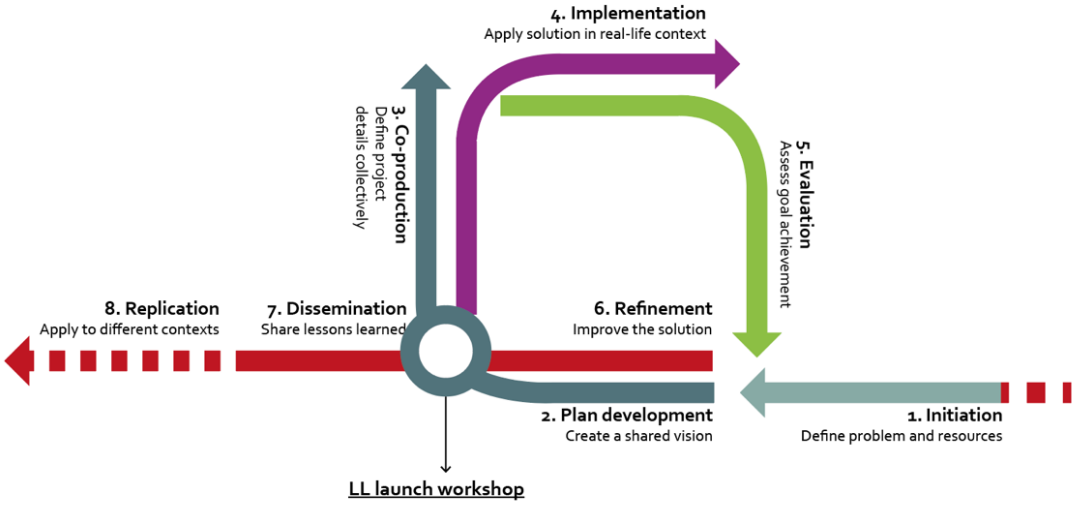

Figure 11 - 8 Phases of Living Lab on housing inequalities and role of the LL launch workshop of HouseInc.

So far, we have completed the **first phase** of the Living Lab process:

1. **The initiation**: we already identified and articulate the core problem or idea; the stakeholders; the scale of action and the approach

We are now moving to the **second phase** of the Living Lab process:

2. **The plan development**: we will establish and reinforce stakeholders' commitment and ambitions for collaboration through their engagement in the LL launch workshop.

With the **LL launch workshop**, we will operate the **third phase** of the Living Lab process:

3. **The co-production**: organization and communication of the LL launch workshop and definition of LL details collectively, logistic arrangements, prototyping of some activities.

Roles and responsibilities in the task

UNIBO	Case Study Teams (local partners)
Design materials (templates, infographics, training inputs)	Organize logistics (venue/online setup)
Provide support (remote or hybrid)	Invite participants
Collect results across countries and gather cross-country insights	Facilitate the workshop locally
Write the final report	Write a 3–5 page local report (with photos)

Glossary and quick information

Solutions: any initiative aimed at tackling housing inequality. We consider 3 clusters of solutions:

1. **Policy**: A set of guidelines, principles, or strategic orientations, often adopted at the governmental or institutional level, aimed at systematically addressing housing inequality. *Es. A municipal housing allocation rule.*

2. **Program**: An organized and coordinated structure of actions and resources, designed to implement one or more policies. It has a broader scope and a medium- to long-term duration, often divided into components or specific interventions. *Es. A city-led renovation scheme*

3. **Project:** A concrete, time- and location-bound intervention, aimed at achieving one or more specific objectives. It can be stemming from programs *(e.g., Dutch 900.000 new housing units built through the Dutch National Recovery and Resilience Plan)* and from local-driven initiatives, irrespective from policies and programs, *(e.g., A neighborhood-level initiative led by NGOs)*, which can involve public, private and not-for-profit actors.

HouseInc solutions refer to three perspectives a) Affordability: financial solutions or innovative business models; b) Sustainability: technical /technological and digital solutions; c) Inclusivity: social innovations.

Living Lab. Experimental environment where real-life experiment are tested in real conditions; engagement process where users, private, public and knowledge actors have decision power over the innovation process; multidisciplinary methodology that uses co-creation, prototyping, validation and iteration to search for applied solutions in terms of technologies, services, products, policies, etc. to be transferred to society. Within the HouseInc project, we establish and launch the Living Lab on housing inequalities to support the co-creation of solutions to be transferred to policy, societal and business stakeholders in the housing ecosystem.

LL launch workshop. It is the activities foreseen by HouseInc to kick off the Living Lab. It will engage the preliminary interested stakeholder to the project, it will explain the Living Lab's purpose, methodology, and expected outputs; it will deploy a first co-creation activity for the collective definition of solutions to housing inequalities. The workshop can be hybrid, online or live; its duration depends on the case studies team availability as well as the stakeholders'. It needs to be completed by December 2025.

Revised and enhanced set of solutions to address housing inequalities. It is the deliverable of the task. It will include recommendations and methodologies to be used to transfer the new or revised solutions to housing inequalities to policy, societal and business stakeholders.

11 ANNEX 3

HouseInc Capacity Building Activities and Workshop brief

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The Capacity Building is the main activity of T5.3. The task aims to **create a toolkit of recommendations** (e.g., a practical guide with templates, methods, and examples for stakeholders - municipalities and NGOs - to use in training and campaigns) finalized to the creation of capacity building programs on the housing inequalities drivers and barriers in the case studies.
To create the toolkit, we are working on two aspects:

- desk research on capacity building programs methodologies and examples and toolkit preparation (UNIBO);
- a workshop with **two case studies** to test some of the methodologies that will be included in the toolkit (UNIBO + case studies).

The toolkit will support the creation of capacity building activities (trainings, campaigns, written/visual materials, etc) for transferring the evidence of housing inequalities drivers to policy, societal and business stakeholders interested in finding solutions for the different poverties.
Within the HouseInc project, however, we only **produce the toolkit and test some of the methodologies in two case studies**:

- **Vogelstang - Germany**
- **Darvari - Romania**

How Capacity Building fits into HouseInc

Living Lab (LL): Works on co-creating **solutions** to housing inequalities.
Capacity Building (CB): helps participants understand the **drivers and barriers** first, so they are better prepared to co-create a campaign to train or sensityze target audience.

The **CB Workshop** (CBW) will take place **inside the LL Launch Workshop**:

- **CB:** understanding and learning housing vulnerability (1–1.5h)
- **LL:** working on solutions

The 3 phases of Capacity Building

The approach included in the Toolkit consists of three phases of capacity building as logical progression from individual technical capacity to collective collaboration, to community

mobilization. The case study will be asked to test a methodology of just one of the phases (see the **Box**). UNIBO will provide a specific proposal for the cases' activities.

Capacity Building programme on housing inequalities based on sharing and co-creating in 3 phases

(1) **Step 1. FOUNDATION *Strengthening individual skills***

spatial data-driven territorial insight for Housing equality. Improvement of policymakers' (and/or NGO) capacity to perform analysis related to housing inequalities and fragile communities' segregation through spatial approaches and maps, improvement of maps/infographic understanding and readability; improvement of data selection to create spatial maps for the identification of vulnerable areas and intervention priorities (e.g. training on GIS maps to identify vulnerable areas). This program mainly focuses on the capacity of the single stakeholders.

(2) **Phase 2. COLLABORATION *Improving teamwork among stakeholders***

multi-Stakeholder co-design for Housing solutions. Improvement of the capacity to perform collaborative initiatives and pilot projects among different stakeholders (municipality, NGOs, associations, community representatives). This program might focus on techniques to facilitate multi-stakeholders' collaboration and the co-creation of tailored solutions (e.g. workshop to design a joint project on energy poverty). This program mainly focuses on the relation among stakeholders.

(3) **Phase 3. AMPLIFICATION *Raising awareness in the community***

strategic communication and storytelling for housing justice. Strategies to develop effective storytelling and communication strategies to raise awareness about housing inequalities, strategies to plan and manage community engagement campaigns of solidarity, inclusion, cross-collaboration and empowering fragile groups (e.g. communication campaign like posters, events, storytelling). This program mainly focuses on the relation between stakeholders and the citizens.

Table 6 - Phases of Capacity Building on housing inequalities (framework of the Toolkit)

The CB Workshop (CBW)

The workshop (1 – 1.5 hours) will guide participants through the **initial design of a local communication/educational campaign on a specific topic**, using it as a way to explore methods to engage with stakeholders and citizens and support housing inequality drivers' understanding and the transfer of the evidence to policy, societal and business stakeholders interested in finding solutions for the different poverties

Glossary and quick information

Capacity Building means helping people and organisations improve their skills, resources, and ways of working so they can adapt, solve problems, and reach their goals. It's more than training: it can include sharing knowledge, building networks, improving infrastructure, and strengthening governance to ensure lasting effectiveness and resilience.

Capacity Building Toolkit (CBT). It is the deliverable of T5.3 entitled "Capacity-building toolkit for addressing housing inequalities". It will include recommendations and methodologies to be used to transfer the evidence of housing inequality drivers to policy, societal and business stakeholders.

Capacity Building Workshop (CBW): 1–1.5h workshop (one per each of the two selected case studies) to test a small part of the toolkit in a case study.
Capacity Building Campaign (CBC). This is the output of the workshop: a first draft of a communication or awareness campaign tailored to their specific needs and themes.
Relation between the Living Lab Launch workshop and the CBW. CB focuses on understanding drivers, LL focuses on co-designing solutions.

Capacity Building Workshops in the Case Studies

Vogelstang – Germany (November 18th)

The LL launch workshop in Vogelstang will focus on the topic of energy affordability. We propose to dedicate a 1h session of the day to **Capacity Building Workshop (CBW) with the main goal of** outlining of an **energy affordability/energy poverty campaign**.
The campaign will aim to support the transfer of the evidence of housing inequality drivers to policy, societal and business stakeholders.
In **the case of Vogelstang,** we propose to focus on
- the **second phase** (*COLLABORATION: multi-Stakeholder co-design for Housing solutions*) with a thematic focus on energy poverty and, in particular, the creation of a campaign for a better collaboration among the key stakeholders (maybe a "call to action" targeting owners and tenants).
AND / OR
- the **third phase** (*AMPLIFICATION: Raising awareness in the community)* with the creation of a campaign devoted to the community on energy poverty.
CBW participants will:

- Define the scope and the main target (citizens, municipal staff, industries, etc.) of the campaign.
- Choose the campaign type (flyer, call to action, joint taskforce, etc).
- Draft the main message of the campaign.
- Plan a roadmap for the campaign implementation.

Methodology and a canvas will be provided for the activity.
Expected output of the CBW

- A **draft campaign idea** (poster, flyer, awareness event, call to action, etc.)
- Feedback to improve the project Toolkit
- Input for Living Lab activities and policies.

Darvari – Romania (October 22nd)

The LL launch workshop in Darvari will focus on the topic of energy service accessibility. We propose to dedicate 1 hour to **Capacity Building Workshop (CBW) focused on energy accessibility campaign.**

In relation to the CB phases, we think we could focus on:
- the second phase (***COLLABORATION: multi-Stakeholder co-design for Housing solutions***) applied to the topic of **equitable energy access** and, in particular, to the creation of a collaboration **campaign** targeting municipality and local stakeholders in the area to support the initiation of energy sharing initiatives (e.g. call to action for an energy communities with social benefits, flyer, posters, etc),
CBW participants will (1/1.5 hours session):

- Define the scope and target (citizens, municipal staff, industries, etc.) of the campaing.
- Choose the campaign type (flyer, call to action, joint taskforce, etc).

- Draft the main message of the campaign.
- Plan a roadmap for the campaign implementation.

Methodology and a canvas will be provided for the activity.

Expected output of the CBW

- A **draft campaign idea** (poster, flyer, awareness event, call to action, etc.)
- Feedback to improve the project Toolkit
- Input for Living Lab activities and policies.

12 ANNEX 4

Methods Toolkit

*This document collects the tools, exercises and canvas that you can use during your **LL launch workshop**. Please check your instruction document for reference to this guideline. Use the Table of Contents below to navigate the document.*

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Role Card Game 86
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Canvas and materials for the Pathway of Transition (Storytelling) – 90 min 89
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Icebreaking

Exercises to divide into groups while breaking the ice

Role Card Game

Purpose: help participants to embrace the role of representing a group of people.

How to do it:

- Prepare cards describing the various housing-related roles of the invited participants (e.g., tenant, landlord, social worker, …) OR ask participants to identify on their own the group they want to represent (they might also be creative).
- Ask participants to briefly introduce themselves *as* their role.
- Use these roles to form groups by shared or contrasting perspectives.

Random pairing

Purpose: encourage unexpected interactions through a simple visual pairing method. It is useful in case of very small time/long program. This method speeds up grouping and adds a fun, visual element.

How to do it:

- At registration, assign each participant a coloured dot sticker (e.g., red, blue, green). People can select the colour randomly or you can direct the group formation in advance by already assigning a colour. NB: you can also use pencils/markers to identify the colours if you don't have dot stickers.
- When there is the group formation moment, participants form groups by finding others with their assigned colour.

Speed networking

Purpose: connect participants that do not know each other. Useful if you need to build trust and networking occasions among the participants. This activity might be useful also as an icebreaker after a long break (e.g. lunch) if you want to merge groups or help participants to network among them.
How to do it:

- Prepare the room as a speed-dating situation (pairs of chairs one in from of the other with a table in the middle).
- Set a timer for short intervals (e.g., 3 minutes).
- Participants pair off and discuss a focused question (it can be who they are and why they are at the meeting).
- When time's up, participants rotate to a new partner.
- Repeat several rounds to build diverse connections.

Self-formation with rules

Purpose: give autonomy with guiding criteria to balance groups but useful if you don't have much time but still want a small networking
How to do it:

- Define clear rules (e.g., each group must have members with different skills or backgrounds).
- Announce the rules and let participants choose their group.
- A facilitator monitors to ensure balance and fairness.

Interest-based clustering

Purpose: align groups by shared concerns or goals. Useful if you want to have groups with different thematic focuses.
How to do it:

- Identify a list of topics you want each group to dedicate to and clearly present them to participants.
- Participants select the interest area they feel most connected to.
- Form groups based on the interest areas for discussion.

Virtual "One Word" Check-In

Purpose: quickly engage everyone and set a shared tone. Useful as an ice-breaker, with a small group of participants. This activity encourages everyone's voice, takes only a few minutes, and requires no breakout rooms.
How to do it:

- Ask each participant to share *one word* that describes how they feel or what they think about housing vulnerability.
- After everyone shares, the facilitator can briefly reflect on common themes or surprising words. You can use instruments such as Mentimeter, Wooclap or similar for a more interactive/digital environment.

Emotion Photo Reflection

Purpose: create a visual mood setting for sharing stories and reflect on past experiences.
How to do it:

- Share a series of images or icons representing different experiences / emotions (e.g., safety, insecurity, hope, displacement). You can decide to use real images of past events/activities or images found online (check Pixabay, Freepik, similar).

- Ask participants to choose the image that resonates most with their current feelings or experiences.
- Invite them to briefly explain why they chose that image, fostering empathetic listening and mood setting.

Canvas and materials for the Participatory Mapping activity – 60 min

Materials needed:

- Printed canvas "Participatory Mapping" (provided by UNIBO)
- Printed "Driver map" (provided by UNIBO)
- 2/3 maps of the area with some data already mapped (provided by UNIBO)
- Post-its, pens, pencils, etc

Objective of the session:

Look at the maps together with the participants and identify *what is missing in the map that already exists* (integrate the map) and *what is missing that should be included in the area* (integrate the services). Use the canvas to support the activities of the table.

How to use the materials and timing suggestions:

5-10 minutes: Explain the exercise and the objectives in the groups (maps and other materials already on the table)

20 minutes: Understanding the maps (box#1 Look and Notice). Round 1 of guided discussion with one or two questions

Potential guide-questions:

Q1. Do you think that the maps correctly identify and locate the main housing services in the area? Integrate the maps with the missing existing services.

Q2. Are there any housing vulnerabilities that you think emerge from the map? Where are key energy precarity hot spots?

20 minutes: Contributing to the maps (box #2 Add what's missing). Round of guided discussion with one or two questions

Potential guide-questions:

Q3. Which services you think should be included in the area? And where?

10 minutes: Final agreement on the main aspects arose during the discussion (box#3 Set priorities). *Support the participants in converging on the most important aspects that emerged. Use the canvas provided to identify the main topics and discussion points.*

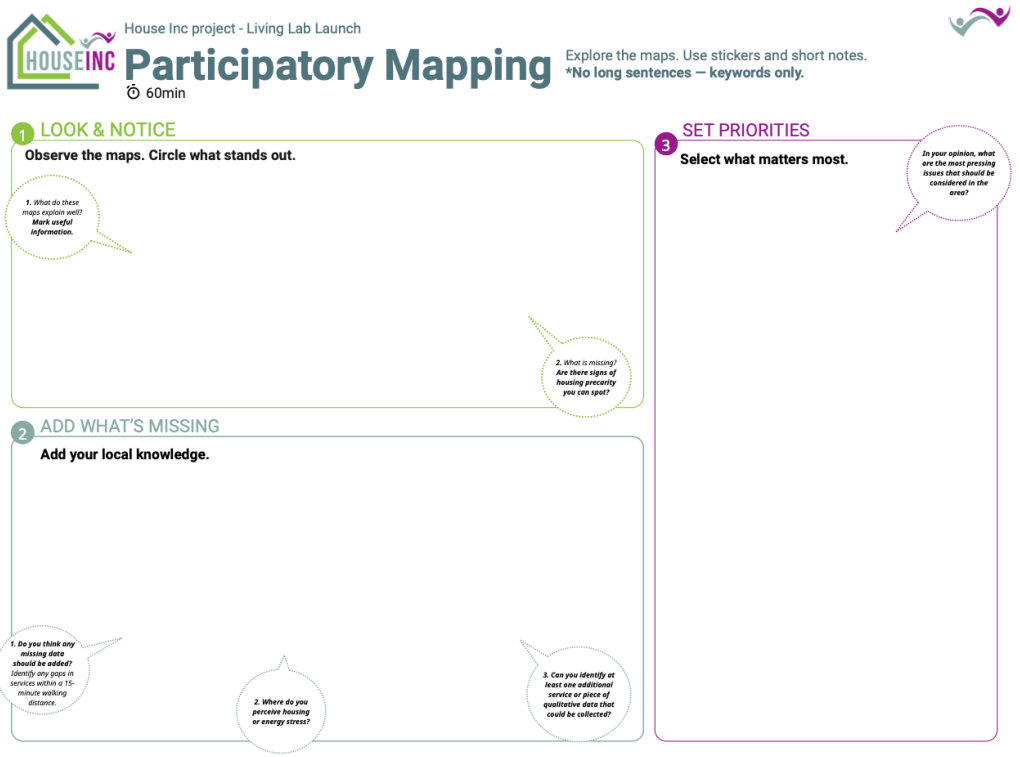

Figure 12 - Participatory mapping Canvas. The full-size material is provided as an Annex in pdf.

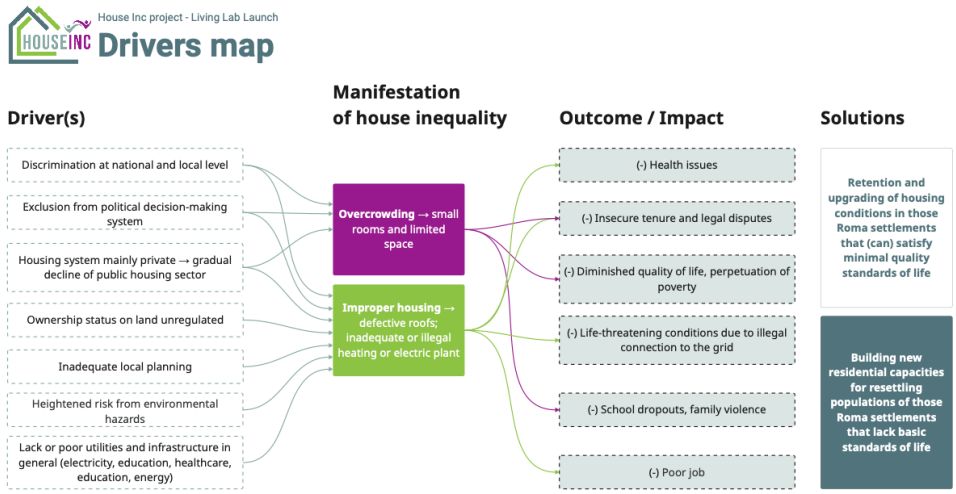

Figure 13 - Example of a Drivers' map that will be provided in Annex. Each case study will have a tailored map.

Canvas and materials for the Pathway of Transition (Storytelling) – 90 min

Materials needed:

- Printed canvas "Pathways of Transition" (provided by UNIBO)
- Printed "Driver map" (provided by UNIBO)
- Post-its, pens, pencils, etc

Objective of the session:
Identify a pathway of solutions in the short, medium and long term for the Living Lab, devoted to co-develop and implement solutions, with milestones, specific timeframes, priorities, responsibilities, resources and call-to-action.
How to use the materials and timing suggestions:
5 minutes: Explain the exercise and the objectives in the groups (maps and other materials already on the table)
15-20 minutes: Short term FIXES (box#1). First, identify what 'short term' means for you. And write a precise timeframe in the box. Then, brainstorm in your group to explore **possible short-term solutions** or 'fixes' for Housing vulneability in the area. E.g. activities you can directly influence or start in the Living Labs; 'fixes' immediately needed to address a specific challenge (safer temporary connections, awareness campaigns, immediate support schemes, creating a task force with specific targets, ...).
15-20 minutes: Medium term ACTIONS (box#2). Identify what 'medium term' means for you. And write a precise timeframe in the box. Then, brainstorm in your group to explore **possible medium-term solutions** for the challenges in the area. Think, for example, about actions that go beyond immediate fixes but that you can start implementing with some precise steps. Consider how the Living Lab can support the implementation of these potential solutions. Examples could include municipal–NGO coordination for service delivery or pilot renewable/community energy projects.
15-20 minutes: Long term potential SOLUTIONS (box#3). Identify what 'long term' means for you. And write a precise timeframe in the box. Then, brainstorm in your group to explore **possible long-term solutions** for the challenges in the area. Think, for example, about complex actions that require more coordination, resources, or time to implement. Consider how the Living Lab can support the implementation of these potential solutions. Examples could include infrastructure investments or integration into urban energy plans.
10 minutes: Look back at what you defined. Are there any steps necessary for the long-term solutions that can be added in the other timeframes? Give some time to the participant to brainstorm about what has been done.
10 minutes: Take 10 final minutes to select for each timeframe one action to focus on. This action might be your priority for the next steps of the Living Lab.

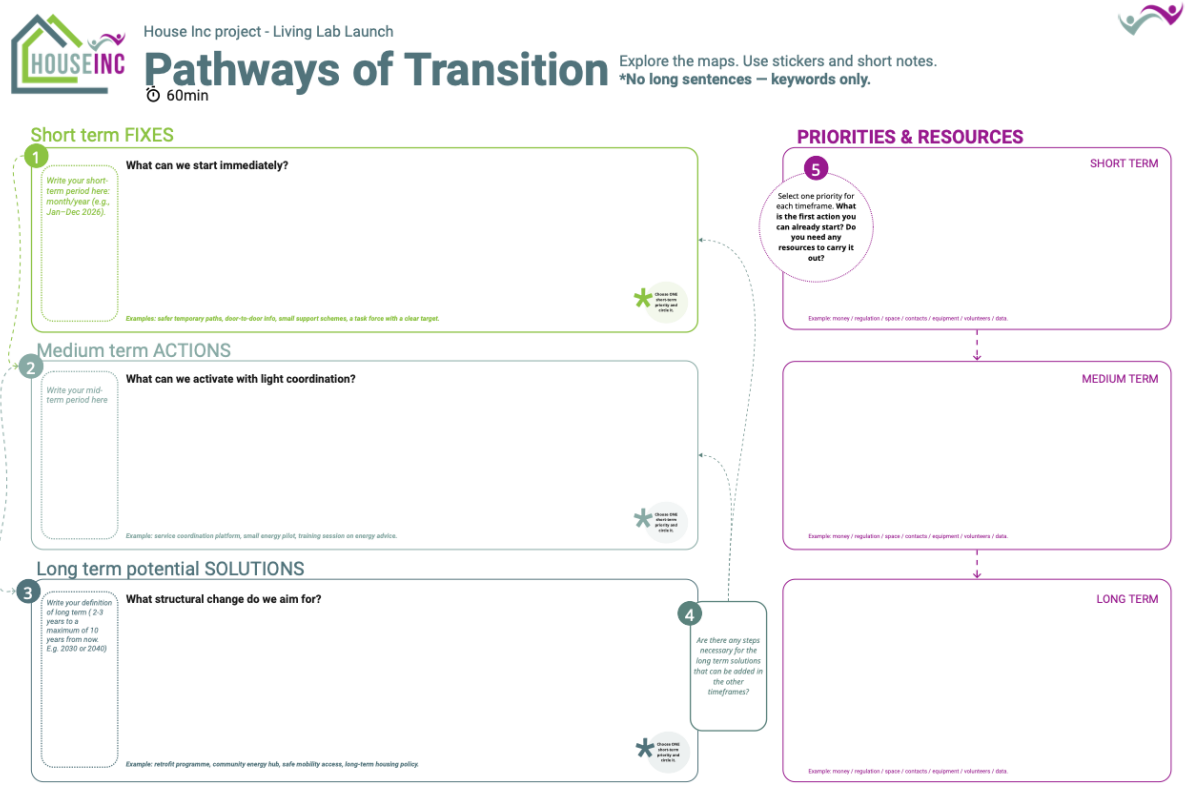

Figure 14 - Pathways of Transition Canvas. The full size material is provided as an Annex in pdf.

Canvas/Materials for the Co-Design! (Capacity Building) Session – 60 min (only in Darvari and Vogelstang)

Materials needed:

- Printed canvas "Co-design!" (provided by UNIBO)
- Completed draft of the "Pathways of Transition" canvas with post-its
- Post-its, pens, pencils, etc

Objective of the session:

Look at the Pathway and identify one of the first activities that you can do and work on it. It should be a **small pilot campaign or tool/service**. This activity is devoted to starting to work on it together. You do not aim to complete the work but to start the activity and call the participants to action. This can also be a first way to call for additional Living Labs meeting in the following months.

We suggest organising the activity in the different groups. Each group can decide to work on a different campaign/tool/service or on the same one.

How to use the materials and timing suggestions:

5 minutes: Explain the exercise and the objectives in the groups (maps and other materials already on the table)

10 minutes: What? (box#1). Identify in the group what do you want to work on. Start small (a flyer, a website page, the organization of the next Living Lab meeting, a call to action, …).

10 minutes: For whom? (box#2). Identify who is your key target audience. It might be the community, a specific stakeholder, a specific groups of associations, … Be as specific as possible.

15 minutes: Key message and the objective of the campaign (box#3). What do you want to communicate to the identified target? Be as specific as possible.

15 minutes: Instruments and Alliances (box#5). Section 5 is composed by three boxes. If you run out of time, you can decide to dedicate time to just one of them and continue the rest of the discussion in a new living lab meeting. Try to focus on the most important one for the campaign you are designing. You can ask participants to focus on who can support you in refining/organising the campaign (e.g. associations, technicians, municipality staff, NGOs, gatekeepers among citizens, …) or on the means of communication for the campaign itself (e.g. door-to-door, spot on local TV, website, posters around the city, …).

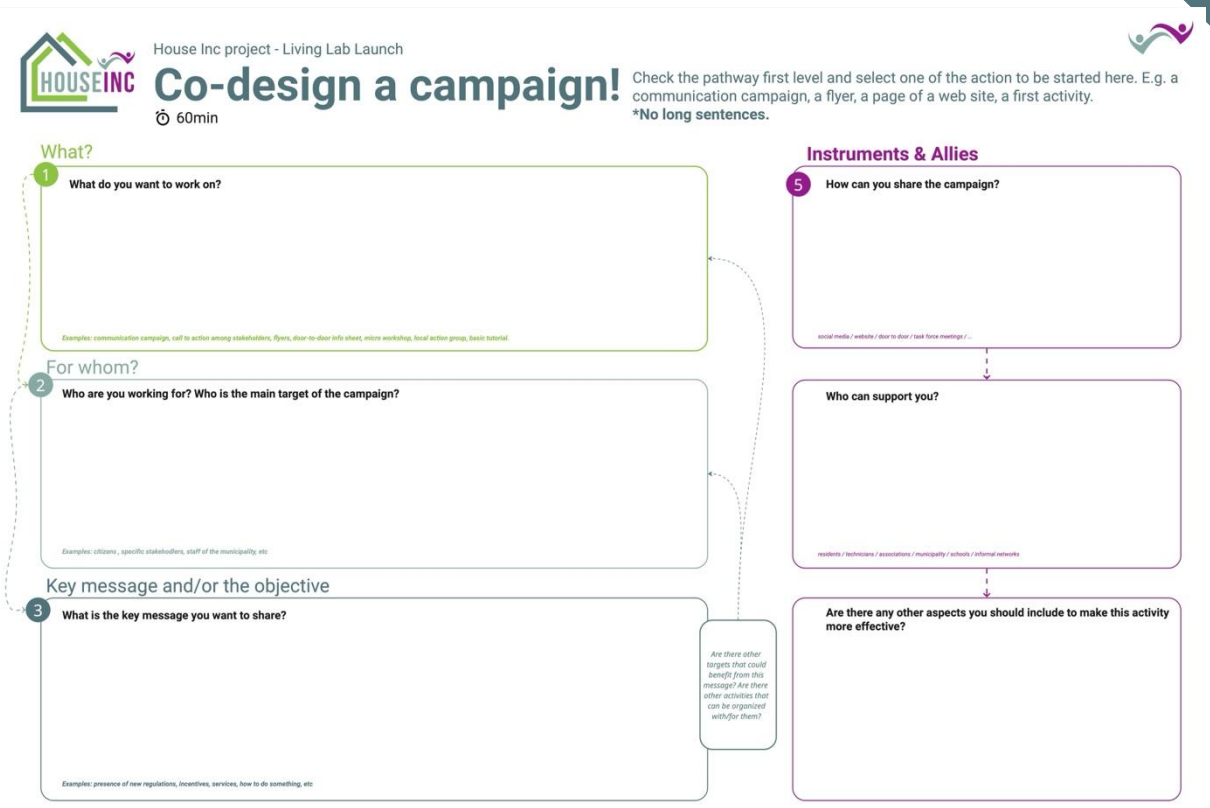

Figure 15 - Co-design a campaign! Canvas. The full-size material is provided as Annex in pdf.

13 ANNEX 5

Guidelines for organizing the Living Lab Launch Workshop

Case Study: Energiebezahlbarkeit (energy affordability) / Vogelstang

Living Lab overall framework (long-term)

The ***Energiebezahlbarkeit lab*** is the broader, ongoing process whose final aim is to co-design and test solutions for a **scalable, replicable model** that reduces energy poverty by combining spatial analysis, community engagement, and policy co-design, ensuring equitable and locally relevant energy efficiency solutions.

Expected outputs of *Energiebezahlbarkeit lab* are:

1. Vogelstang Energy solutions Atlas including shared methodologies for mapping and addressing energy poverty and affordability
2. Identification of socio-demographic groups **most at risk** in Mannheim/Vogelstang and tailored energy efficiency and affordability solutions designed with and for these groups
3. Tested outreach and communication strategies that inform and engage residents effectively
4. Policy-relevant insights for landlords, housing associations, and municipal actors.

Proposed Living Lab activities to achieve the outputs are:

1. **Collaborative mapping of energy poverty solutions >** Vogelstang Energy solutions Atlas

   Identify geographic areas with the highest concentrations of at-risk residents using housing and socio-demographic data.
   Tools: GIS maps + participatory mapping overlays.
   Target group: Municipal Working Group (departments + MVV Energie).
2. **Testing outreach strategies**
   Develop clear, multilingual, and accessible communication tools for residents.
   Build energy literacy, improve cross-stakeholder cooperation, and test campaign design through three progressive steps:
   Foundation (technical data literacy for municipal/NGO staff).
   Collaboration (multi-actor co-design of solutions).
   Amplification (storytelling, communication strategies).
   Tools: Flyers, pop-up info desks, trusted community channels.
   Target Group: Municipal actors, NGOs, residents, residents, NGOs, housing associations, building administrators.
3. **Policy Co-Design sessions**
   Explore solutions with landlords and city agencies (e.g., incentives, inspection/reporting systems, success stories).
   Target Group: Landlords, GBG, MVV Energie, municipal officials.

LL Launch Workshop – 18 November 2025

The **Launch Workshop** is a **kick-off event** where some Living Lab activities will be prototyped and tested with stakeholders.

Expected outputs of the Launch Workshop are:

1. Introduction of the Living Lab approach and clarification of the expected outputs

2. shared understanding of energy affordability challenges in Vogelstang using maps and infographics
3. test of collaborative approaches to design a **pilot outreach campaign or tool** (educational, awareness, or collaboration-focused)
4. definition of priority areas and stakeholder commitments for the continuation of the Living Lab
5. Draft ideas for **solutions** (to be tested in the future LL phases and/or proposed to policymakers)
6. Building of a **shared agenda** for testing solutions in the next phases.

First tentative agenda of the Launch Workshop

Period: November 18th

Total duration: ~4/5 hours (including a short break)

Format: in-person

Participants: Municipal departments (Urban Planning, Climate, Housing, Property), MVV Energie, GBG, NGOs (?).

Plenary. Presentation (30 min)

- Opening remarks + short presentation of the HouseInc project and the Living Lab approach
- Clarify objectives of this specific Launch Workshop
- Frame: *"how can Vogelstang ensure energy efficient behaviour is affordable for all?"*

Breakout groups. Participatory Mapping (1 h)

- Data walkthrough on crowding, ageing, unemployment, income, migrant share, service accessibility, … Stakeholders complete and refine "proximity maps" of services (education, health, housing, welfare, cultural facilities, etc.) adding local insights.
  Guided discussion:
- *what service is missing and where? Who is most vulnerable? Where are the risk clusters? which housing, socio-economic, demographic, and service-access factors drive risk?*

Collaborative Work Sessions (95 min)

Breakouts on two themes:

- **Pilot campaign prototype (session on capacity building),** residents & outreach: *how best to inform at risk residents?* (languages, channels, trusted intermediaries) Co-design a small-scale campaign to test in early 2026, definition of target audience, communication channels, responsible actors.
- **Testing ideas on incentives and policies,** landlords & policymakers: *what policies or support measures could motivate affordable retrofits?*

Output: Draft outreach and incentive ideas.

Wrap-Up & Next Steps (30 min)

- Summarize outputs (maps + campaign prototype + solutions).
- Define next Living Lab activities for 2026.

- Record commitments from participants to participate in *Energiebezahlbarkeit lab* (e.g., "an NGO can host a follow-up on housing refurbishment").
- Agreement on priority areas for the Living Lab to focus on (e.g., service accessibility, housing-market engagement, community-based support).

Next steps (15 min)
What obstacles or limitations do you anticipate for organizing and running the workshop? (e.g., time constraints, stakeholder availability, data gaps, language barriers). Anticipating potential barriers allows us to prepare mitigation strategies and ensure smoother implementation.

Clarification: what belongs where

Activity	**Living Lab (long-term)**	**Launch Workshop (tested Dec 2025)**
Development of the full Energy solutions Atlas	x	Partially (first set presented/validated)
Replicable model for reducing energy poverty	x	-
Testing outreach strategies	x	x (prototype campaign co-designed)
Policy co-design with landlords/incentives	x (later phase)	-
Capacity-building campaigns	x	Partially (Foundation step tested)
Cross-stakeholder governance building	x	x (workshop kick-off)

Next steps
Before the Workshop: prepare logistics, invite stakeholders, translate/print maps and materials.
During the Workshop: facilitate plenary, groups, and storytelling session.
After the Workshop: produce a short workshop report (3–5 pages with photos, main findings, and agreed next steps).

Guidelines for organizing the Living Lab Launch Workshop

Case Study: Access&Recognition Lab / Darvari (Ciorogârla, Romania)

Living Lab overall framework (long-term)

The **Access&Recognition Lab** is the broader process whose aim is to **co-**develop a replicable pathway to reduce Roma segregation, co-develop legal pathways for settlement stability and recognition, while addressing **energy precariety and access inequalities** as part of broader housing vulnerability.

Expected outputs of Access&Recognition Lab are:

1. By combining **legal pathways** with **energy access solutions**, the Living Lab will prototype models that reduce vulnerability and create replicable governance mechanisms.
2. Solutions that **improve access to essential transitional services** (e.g., mobile documentation unit, helpdesk) co-delivered by municipality and NGOs.
3. Identification of the most vulnerable groups (based on housing, age, energy access, health, and community ties)
4. **Energy precarity solutions** (equitable energy access campaigns, pilot "energy-sharing" or community energy initiatives, access to clean energy services – electricity and gas, access to clean water).
5. **Evidence-based recommendations for** policy debates at municipal, county, and national level.
6. **Capacity building** campaigns to support the understanding and sharing of housing inequalities drivers to stakeholders and policy makers

Proposed Living Lab activities to achieve the outputs are:

4. **Participatory mapping (segregation & service access):** analyze patterns of segregation and accessibility; identify service gaps

   Tools: GIS maps & infographics from T5.2 (education, health, cultural, welfare facilities), group discussion & annotation exercises.
   Target group: Local Municipality of Ciorogârla (Mayor, Social Assistance Dept.), Roma representatives in local administration, Community organizations (e.g., MKBT NGO), Research partners (ORSE)
5. **Prototype municipality - NGO collaboration models to shift from ad hoc to institutionalized services**, e.g., mobile administrative units for documentation support, helpdesks, integration of services into municipal budgets

   Tools: Atlas of Solutions (T6.1) as inspiration, World Café or semi-structured brainstorming.
   Target group: Municipality of Ciorogârla (Mayor, Social Assistance Dept.), Roma NGOs (Eromnja, FCDL), District Council of Ilfov, National stakeholders (Ministry of Development, real estate associations), Research & academic partners (ORSE, ICCV, University of Bucharest)
6. **Energy Access & Precarity Mapping.** Use spatial data and participatory mapping to locate **energy gaps** (areas without stable electricity or heating or water) and explore **energy-sharing or energy access models** (photovoltaic installations, shared infrastructure, NGO–municipality cooperation).

   Tools: spatial maps of energy facilities & resources, group scenario-building ("what if" exercises).
   Target group: Local Municipality (Mayor, Social Assistance Dept.), Roma representatives, MKBT NGO, Research partners (ORSE)

7. **Capacity building activities**: strengthen technical skills, multi-stakeholder collaboration, **structured dialogue** with local authorities (mayor's office, municipal staff) to adapt to evolving legal/political contexts, and community campaigns on energy literacy. (see dedicated document on Capacity Building).

   Tools: Toolkit (see dedicated document on Capacity Building)
   Target group: Local Municipality, Research partners (ORSE), variating depending on the activity

LL Launch Workshop - December 2025 (short-term, within project)

The **Launch Workshop** is a **1-day event** to prototype **practical steps toward energy precarity access**, and to build momentum for the Living Lab.

Expected outputs of the Launch Workshop are:

1. Introduction of the **Living Lab approach** and its expected outputs in Darvari (energy precariety vs access)
2. Presentation and discussion of **initial evidence** on housing, segregation, and service access
3. **Draft prototypes** of transitional service solutions that can directly benefit residents, e.g. outline of a **mobile documentation service** (IDs, address registration), options for **service access agreements** between municipality and NGOs.
4. Annotated maps of **participatory mapping** of segregation, service gaps and energy access to prioritize interventions.
5. Start of a **capacity-building exercise**: e.g. co-design a small **pilot campaign/tool** on energy literacy .
6. A **shared agenda** for the next phases of the Living Lab.

First tentative agenda of the Launch Workshop

Period: 22nd of October

Total duration: ~3 hours (including a short break)

Format: Would you prefer the workshop to be conducted as a hybrid event

Participants: Municipal officials, NGOs, Roma representatives, researchers, residents.

Plenary. Presentation (30 min)

- Opening remarks + short presentation of the HouseInc project and the Living Lab approach
- Clarify objectives of this specific Launch Workshop

Breakout groups. Participatory mapping + energy service gaps (1 h)

- Maps of housing, socio-economic data, and energy access gaps (comparative analysis: Darvari vs. other settlements).
- Stakeholders' groups analyze maps of segregation, services, and energy access, identify gaps in access (within 15-minute walking distance): where are key energy precariety hot spots? Are there any other precariety that might be mapped (e.g. transport).

Pathway Storytelling – Drafting Short-, Medium-, Long-Term Solutions (1 h)

- Identify short-term fixes (e.g., safer temporary connections, awareness campaigns, immediate support schemes).

- Identify medium-term actions (e.g., municipal–NGO coordination for service delivery, pilot renewable/community energy options).
- Identify long-term potential solutions (e.g., infrastructure investment, integration into urban energy plans).
- Use a timeline wall or canvas to place actions into short/medium/long categories.
- Identify at least one priority for each term and list potential barriers of completion.

Capacity-Building Co-Design: service access campaign / communication tool (1 h)

- Co-design a small pilot campaign/tool on energy literacy. Breakout groups focus on 1 priority themes (examples):
  - Safer access to electricity.
  - Affordable heating options.
  - Energy literacy & awareness (also in connection with already present solutions/opportunities that the community do not know).
- Each group drafts a prototype activity (campaign, pilot tool, or service).

Plenary. Final reflection and next steps (15 min)

- discuss priority areas for the Living Lab to focus on in the next years
- Record commitments from participants (e.g., municipality to convene next working group, NGO to pilot campaign).

Clarification: what belongs where

Activity	Living Lab (long-term)	Launch Workshop (tested Dec 2025)
Legal recognition model (IDs, use rights, residency registration)	x	
Tenure clarification process (reduce risk of eviction)	x	-
Structured dialogue platform with mayor/municipality	x	X (kick-off only)
Participatory mapping of energy service gaps	x	x (prototype in workshop)
NGO–municipality collaboration for services	x	x (prototype idea in workshop)
Prototypes of mobile/temporary services (e.g., helpdesk, mobile documentation unit)	x	X (co-designed draft at workshop)
Evidence-based recommendations for national debate	x	-

Next steps

Before the Workshop: prepare logistics, invite stakeholders, translate/print maps and materials.
During the Workshop: facilitate plenary, groups, and sessions.
After the Workshop: produce a short workshop report (3–5 pages with photos, main findings, and agreed next steps).

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