URBAN LAB - SYNTHESES 2025

MAPPING GREEN TRANSITION INITIATIVES AND HOUSING INEQUALITIES

A DOUBLE-SCALE APPROACH BETWEEN FRANCE AND EUROPE

MASTER Governing Ecological Transitions in Cities

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PREFACE

Housing inequality and spatial justice are increasingly recognised as critical dimensions of environmental transition policies. While tools such as energy retrofitting, urban densification, and nature-based solutions are essential to addressing the climate crisis, they often carry unintended social consequences—particularly for vulnerable urban populations.

These issues were at the heart of the 2024 AESOP Conference, which was hosted by the Centre for European Studies and Comparative Politics (CEE) and the Urban School at Sciences Po. Building on this momentum, an increasing number of Sciences Po researchers are investigating how cities, both large and small, navigate the complex intersection of housing inequality and ecological transition. One such effort is the EU-funded ReHousIn programme, which examines how environmental and housing policies interact in practice by bringing together over 30 case studies across nine countries.

Against this backdrop, five Master's students in the Governing Ecological Transitions in Cities programme at Sciences Po conducted a year-long capstone project. Their objective was to analyse how urban ecological policies are implemented, experienced, and contested in practice. The study focused on five case study cities: Paris, Orléans, Sens, Milan and London. Using a mixed-methods approach involving fieldwork, stakeholder interviews, analysis of policy documents, and spatial mapping, the students examined how ecological transition instruments shape housing markets, influence residents' experiences, and reproduce or challenge exclusionary dynamics. Rather than identifying best practices, the report offers a critical analysis of the tensions, contradictions and trade-offs inherent in real-world transition processes.

The study demonstrates how critical enquiry, empirical investigation and interdisciplinary collaboration can meaningfully contribute to more equitable and inclusive urban transitions. The project's originality lies in its integration of theory and empirical research, providing actionable policy insights while advancing scholarly debate. As well as being presented at Urban Lab Day in June 2025, the project will be presented at the AESOP 2025 Congress in Istanbul.

Marco Cremaschi, partner
ReHousin French Team Principal Investigator, University professor, Sciences Po, CEE

THE PARTNER

This capstone project has been carried out in partnership with the Association of European Schools of Planning (AESOP), a non-profit association registered under Belgian law in 1992. Its primary goal is to contribute its expertise to ongoing discussions and initiatives related to planning education and the qualifications of future planning professionals.

In addition, our work was conducted in the context of the European research project ReHousIn (short for Reducing housing inequalities in the green and digital transition), funded by the Horizon Europe programme, that gathers eleven teams from nine countries to investigate—for the majority of them—the complex relationship between green transition initiatives and housing inequalities across various urban and rural contexts in Europe. The project was launched in early 2024 and aims at reaching its research objectives in early 2027.

The research team leading the project at the French scale is composed of:

- **Marco Cremaschi** *University professo*r, Sciences Po, CEE **(Principal Investigator)**
- **Tommaso Vitale,** *University professor*, Sciences Po, CEE & Dean of Sciences Po Urban School
- **Antoine Guironnet**, Postdoctoral researcher, Sciences Po, CEE
- **Federica Rotondo**, Postdoctoral researcher, Sciences Po, CEE
- **Francesca Ferlicca**, Postdoctoral researcher, Sciences Po, Urban school
- **Rachel Guyet**, Director of the Energy Program at Centre international de formation européenne (CIFE) & *Research associate*, Sciences Po, CERI

Furthermore, as part of the annual European congress on urban planning research organized by AESOP, the final report of this capstone project will be presented in the form of a poster from July 7 to 11, 2025, at Yildiz Technical University in Istanbul. These congresses are a significant part of the role of the partner of the project in establishing connections between urban researchers at the European scale, enabling thus the enhancement of the knowledge production process as well as the discussion of recent academical works and findings.

METHODOLOGY

The research project adopted a multi-scalar geographical approach, focusing on five cities—Paris, Orléans, Sens, Milan, and London—to explore how energy and environmental policies (EEPs) intersect with housing inequalities across different urban contexts. In this realm, Paris was established as a reference point at both the national and European levels, due to the depth of available data and its relevance to both scales of comparison.

The project was structured around a three-phase methodology divided as such:

I – Contextualization & Methodology
II - Analysis & Assessment
III - Comparison & Proposal

The first phase of ***Contextualization and Methodology*** involved an in-depth review of academic and grey literature, alongside the analysis of key urban transition policies in each city. While this phase aimed to situate the research within current academic debates and identify gaps in the existing knowledge, it also worked on the definition of the main EEPs of the projects – namely energy retrofitting, nature-based solutions and urban densification—in line with the ReHousin project framework. To complement the overview of the existing literature, the team developed policy timelines—particularly for Paris—based on official documents, offering a chronological lens on policy evolution. This first phase of work enabled a grounded understanding of the dynamics at play and paved the way for an informed comparative analysis.

The second phase of ***Analysis and Assessment*** applied a standardized analytical grid to each case study. This grid included six components:

1. the city's main socio-economic and political dynamics
2. the state of housing inequalities
3. an analysis of existing EEPs at the urban scale
4. a focus on selected districts
5. a study of the role of grassroots organizations
6. an initial reflection on interactions and trade-offs between green transition policies and housing access at the local scale

Spatialized data, official statistics, and field research—including sixteen semi-structured interviews and informal conversations—informed this analysis. Site visits in neighbourhoods and targeted districts undergoing green redevelopment and EEPs initiatives helped highlight both the local issues and opportunities for more inclusive urban transitions.

The third phase, ***Comparison and Proposal***, aimed at synthesizing findings across the five cities to identify similarities and differences. At the national level, the comparison of Paris, Orléans, and Sens illustrated how urban scale, and available resources shape the integration of energy and environmental policies and social equity. At the European level, Milan and London provided additional insights into contrasting governance models and housing regimes. Based on this comparative analysis, the project proposed targeted policy recommendations designed to provide support to climate-resilient cities while promoting equitable access to housing. These proposals were conceptualized to bridge the gap between academic research and practical policymaking.

FIELD(S) STUDIED

Fieldwork represented a crucial stage of this project, enabling us both to confront the initial conceptual framework with the realities of local contexts and to initiate a process of data collection essential for understanding and comparing the various cases under study.

Within the dual comparative framework (national and European) guiding this project, the five selected cities were divided into one or more case studies, each illustrating one or several EEPs applied at the local level. Each of these cases was the subject of on-site investigation, which involved conducting semi-structured interviews with local grassroot organizations to discuss the case, its history, and its current and future challenges. This was complemented by site visits, often accompanied by spontaneous interactions with local residents.

Figure 1 - Pictures taken during fieldworks in Orléans, Sens, Milan and London (Source: Authors' own, 2025)

Accordingly, one-day field visits took place on Friday, 21 March 2025, in the cities of Sens and Orléans (namely upper-right and upper-left pictures), while longer multi-day missions were carried out in London and Milan (lower-left and lower-right pictures) between 2 and 6 April 2025. The case study of the city of Paris was carried out along the project, including site-visits and interviews conducted mostly during the second half of the academic year.

ISSUES

At the heart of this project lies a multidimensional urban challenge: the intersection between environmental and energy policies and housing inequalities in European cities. This problem is not only complex but also highly context-dependent, requiring in-depth analysis across various spatial, institutional, and socio-economic scales. To achieve that goal, the original question posed by our institutional partners—how green transition initiatives affect housing inequalities—was progressively reformulated and refined as our research advanced. It evolved into a more precise set of interrogations: **What conflicts and synergies emerge between Environmental and Energy Policies (focusing on nature-based solutions, energy retrofitting, and densification) and housing issues in different urban contexts? What strategies can promote a socially equitable urban ecological transition?**

The nature of this problem is rooted in the urgent need to reconcile two of the most pressing contemporary urban issues: the ecological transition of urban areas and the persistence—and in many cases deepening—of housing exclusion and spatial inequalities while green transition initiatives such as park creation, building renovation, or increased density are often presented as necessary steps toward climate resilience. Yet, when implemented without sufficient attention to social impacts, they rather risk triggering phenomena such as green gentrification, displacement, and even eviction due to renovation or redevelopment. The critical challenge here that arises concerns especially vulnerable populations—those who are already most affected by the housing crisis—that become more likely to find themselves further marginalized under the guise of sustainability. Such contradictions are neither isolated nor hypothetical. They are widely documented across European contexts—sometimes even broader— and call for a nuanced analysis that integrates empirical data, fieldwork, and comparative reasoning. Therefore, addressing this issue demands more than a superficial inquiry, it requires a long-term, collaborative, and iterative research process. This is why a nine-month engagement was essential to conduct this research project to its term.

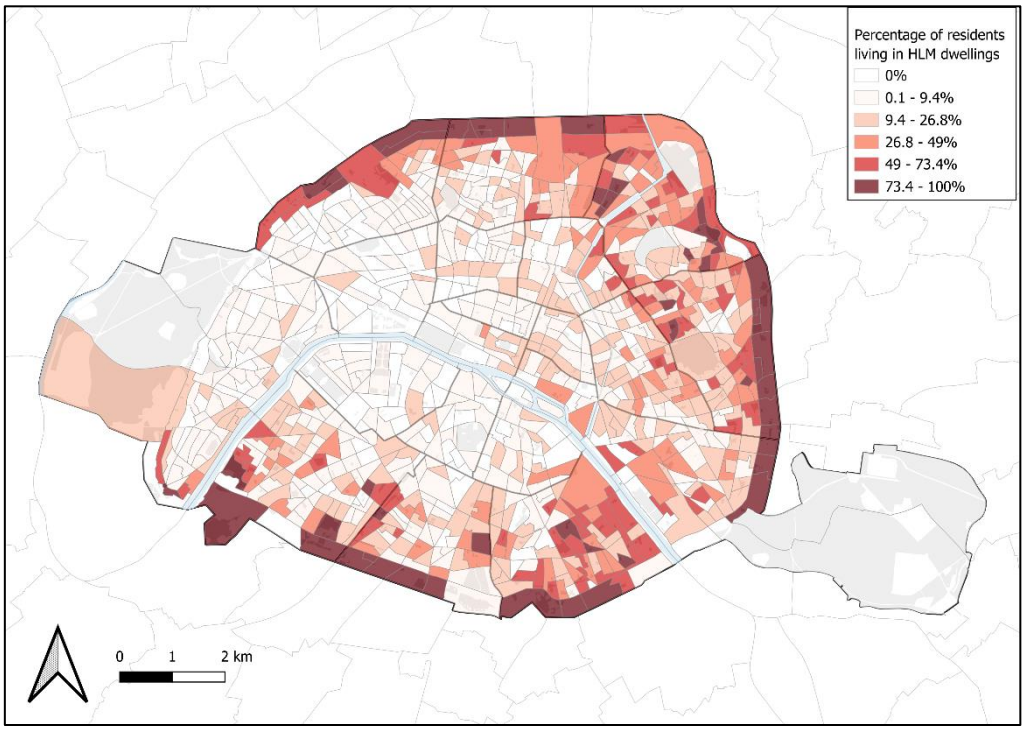

Figure 2 - Percentage of Residents Living in Social Housing in Paris by IRIS (Source: INSEE 2021)

Over the course of these nine months, our team engaged in a multidimensional investigation process, combining qualitative and quantitative methods. We began by defining the key terms—housing inequalities, green gentrification, and the three core energy and environmental policies (nature-based solutions, energy retrofitting, and densification)—through an extensive review of the literature and contributions from the ReHousIn consortium. We then conducted field research in five cities (Paris, Orléans, Sens, Milan, and London) as detailed above, including site visits and semi-structured interviews with local actors and grassroots organizations around specific case studies. The research was further grounded by the mapping of spatialized data in each city and the analysis of local policy documents, allowing us to trace historical trajectories, compare regulatory frameworks, and identify local adaptations of broader environmental strategies. This process allowed us to move from an abstract formulation of the problem to a contextualized understanding of how housing and ecological policies interact in specific urban environments. It also gave us the necessary time to engage with multiple stakeholders—urban planners, housing advocates, environmental activists, and local residents—whose perspectives revealed the social realities behind policy intentions. The iterative nature of this engagement helped us refine our hypotheses, uncover unexpected patterns, compare local realities and formulate suitable policy recommendations.

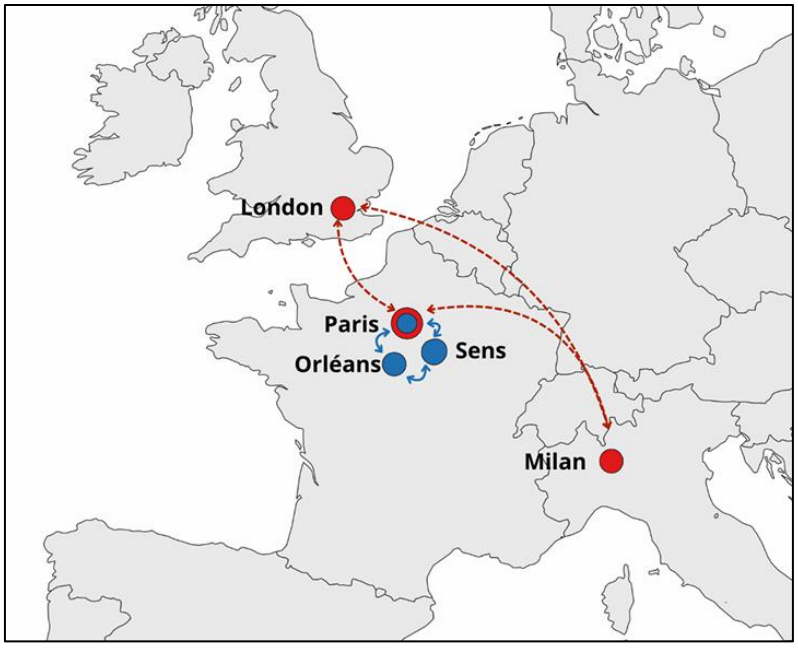

Figure 3 - European map situating the five municipalities being analysed in this project (Source: Authors' own, 2025)

From a methodological standpoint, this time frame was also necessary to implement a robust comparative framework. By analyzing cities of different sizes—such as Paris as a dual national and European case, Orléans as a mid-sized city, Sens as a smaller municipality, and then London and Milan at the European scale—we were able to identify also structural dynamics that transcend local specificities. This comparative lens allowed us to challenge assumptions, avoid hasty generalizations, and ultimately propose more context-sensitive approaches to urban ecological transition. Devoting nine months to this project is therefore justified not only by the technical and empirical complexity of the subject, but also by the ethical imperative to produce rigorous, situated, and actionable knowledge. A shorter timeframe would have forced superficial and incomplete conclusions, or a focus limited to one dimension of the problem—either environmental or social. One can even argue that a longer timeframe could even have

allowed for a more complete study of the topic, integrating further cities and local insights into the comparative process and thus significantly enhancing the context-sensitivity of the project's outcome under the form of the policy guide.

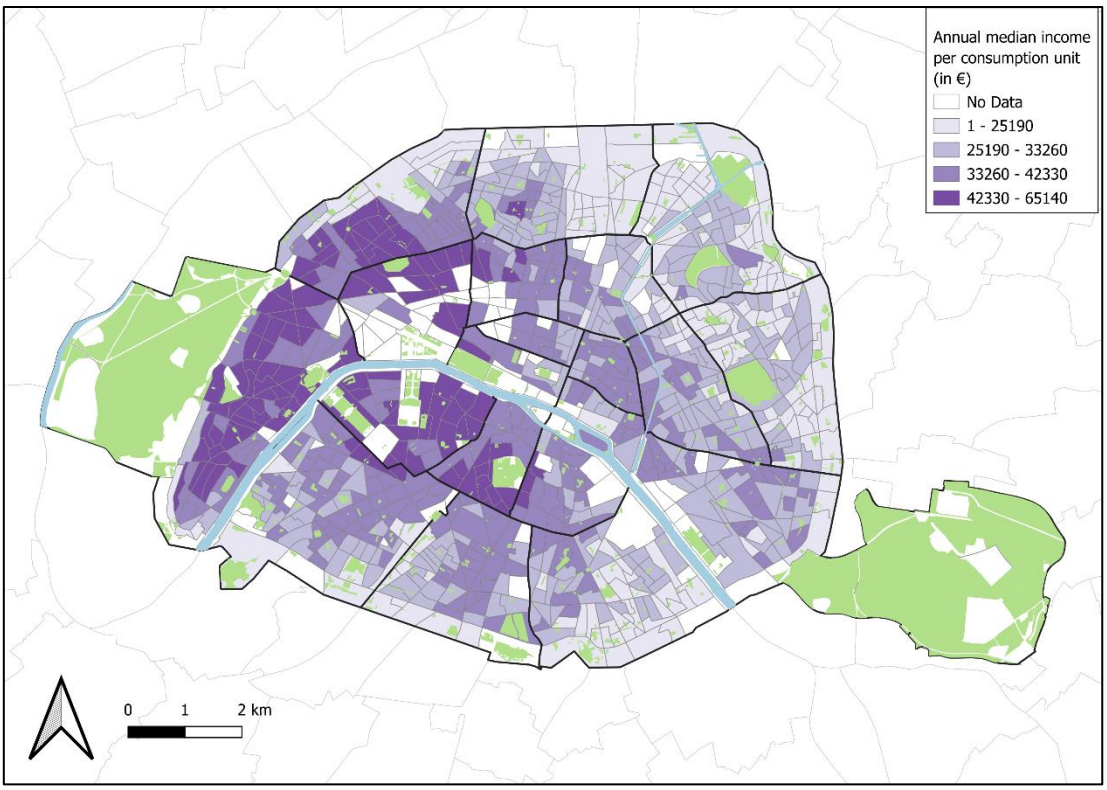

Figure 4 - Repartition of the annual median income per consumption unit in Paris by IRIS. (Source: INSEE 2021)

Therefore, this project is deeply aligned with the core priorities of the Urban School of Sciences Po, and more broadly with the institutional mission of Sciences Po to train future professionals capable of addressing contemporary societal challenges through interdisciplinary and politically aware approaches. The ecological transition is one of the School's foundational themes, and this project exemplifies its pedagogical model as it is research-led, problem-oriented, and conducted in close partnership with public institutions and civil society. Our engagement with AESOP and the ReHousIn Horizon Europe program reflects this collaborative and transdisciplinary approach. More specifically, our research contributes to the School's broader commitment to just urban transitions—an area where questions of sustainability, affordability, equity, and democracy converge. Moreover, the project mobilizes a variety of tools—policy analysis, GIS mapping, qualitative interviews, and institutional comparison—demonstrating the School's emphasis on methodological pluralism and contextualized expertise.

In sum, the problem at the core of our capstone project is urgent and multifaceted if not adequately socially adressed. It is emblematic of the new generation of urban challenges—those that cut across environmental and social domains, and therefore require integrated, long-term thinking. Addressing it over a nine-month period allowed us to build a solid knowledge base, engage with a diversity of stakeholders, and propose policy insights that go beyond surface-level solutions.

MAIN RESULTS

While the question of the impact of green transition strategies on housing inequalities in different urban contexts stems from a growing body of literature on green gentrification, renoviction, and the risks of displacement linked to sustainability-driven urban renewal, this issue plays out very concretely on the ground—in Paris, Milan, London, Orléans, and Sens—where we conducted fieldworks during this project. What we found is that the green transition, if not accompanied by strong social safeguards, can reproduce or even intensify urban exclusion. On the contrary, when social equity is built into ecological planning, cities can become fairer and more resilient at once.

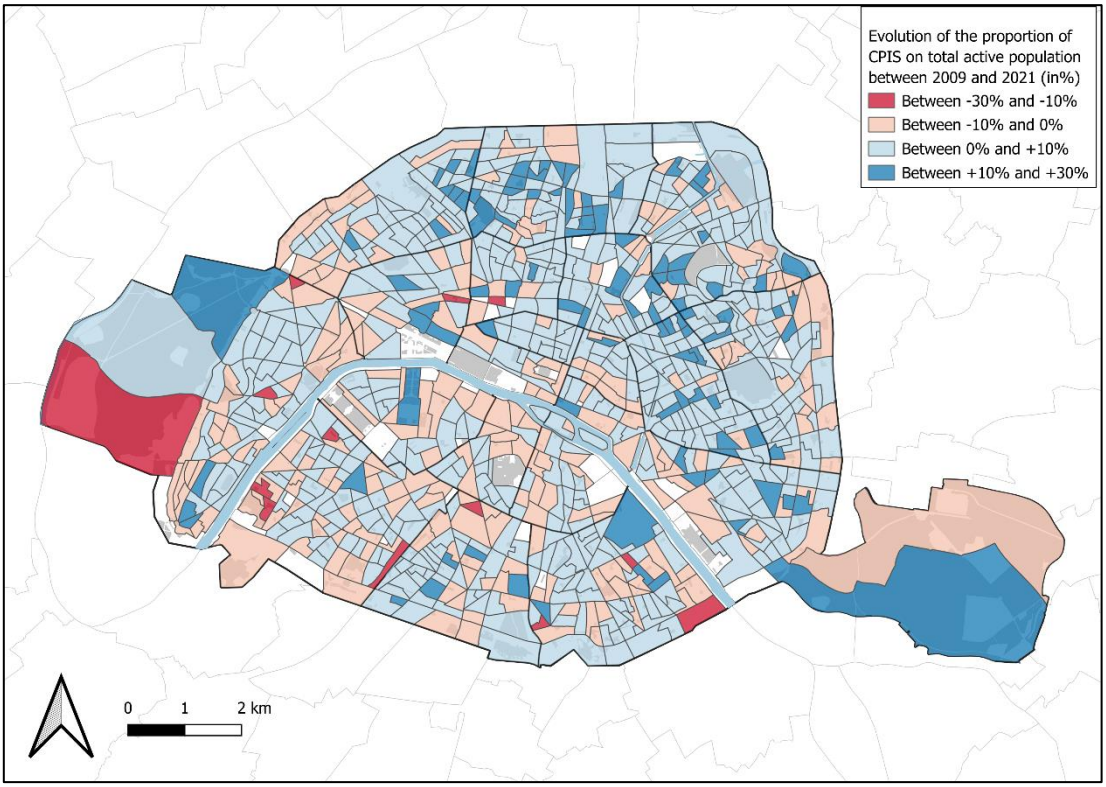

Figure 5 - Evolution of the number of Cadre et Professions Intellectuelles Supérieures (CPIS - managers and professionals) between 2009 and 2021. (Sources: INSEE, 2009, 2021)

Insights from the literature: a fragmented debate and clear Gaps

Our literature review confirmed that the intersection between ecological transition and housing justice remains underexplored in comparative terms. Most studies focus on single tools—green spaces, retrofitting, or densification—without fully accounting for their combined effects, nor for the diverse geographies of impact beyond large metropolitan areas.

Three key lessons stood out:

- **Nature-based solutions (NbS)**, while promoted for their climate adaptation benefits, often lead to increased property values and a process of "green gentrification" that displaces long-standing low-income residents (see Anguelovski et al., 2018).

- **Energy retrofitting**, though crucial for decarbonization, can lead to evictions when landlords pass renovation costs onto tenants or use upgrades as a pretext to remove them—so-called "renovictions" (see Baeten et al., 2017).

- **Urban densification** has socially divergent outcomes, depending on local housing regimes and planning models. Public-led densification tends to protect affordability but can also deepen spatial segregation when driven by private market mechanisms (Debrunner, 2024; Cavicchia et al., 2023).

We also identified a lack of mixed-method approaches and limited research on mid-sized and smaller cities—a gap we aimed to address in this project.

Fieldwork findings: what we learned on site

Through our work on site across 5 cities at the European and French-national scale detailed above in this synthesis, our research uncovered patterns and contextual nuances that literature alone could not reveal. Each city brought forward specific lessons about the social consequences of EEPs and the conditions under which those impacts are mitigated or exacerbated.

The city of Paris: between ambitions and long-lasting inequalities

Paris is both a climate policy leader and a city dealing with stark socio-spatial inequalities. The Clichy-Batignolles eco-district is emblematic of that dynamic: while praised for its environmental design, it has been criticized for attracting upper-middle-class residents and failing to fully integrate low-income populations despite high social housing quotas. The city's ambitious and robust social housing strategy—boosting stock from 13% to nearly 24% since 2001—is noticeable, but limited access seems to be remaining, especially for the lowest-income households (PLAI applicants). The city's new "bioclimatic PLU" attempts to align climate and social goals, yet its effective implementation remains to be seen.

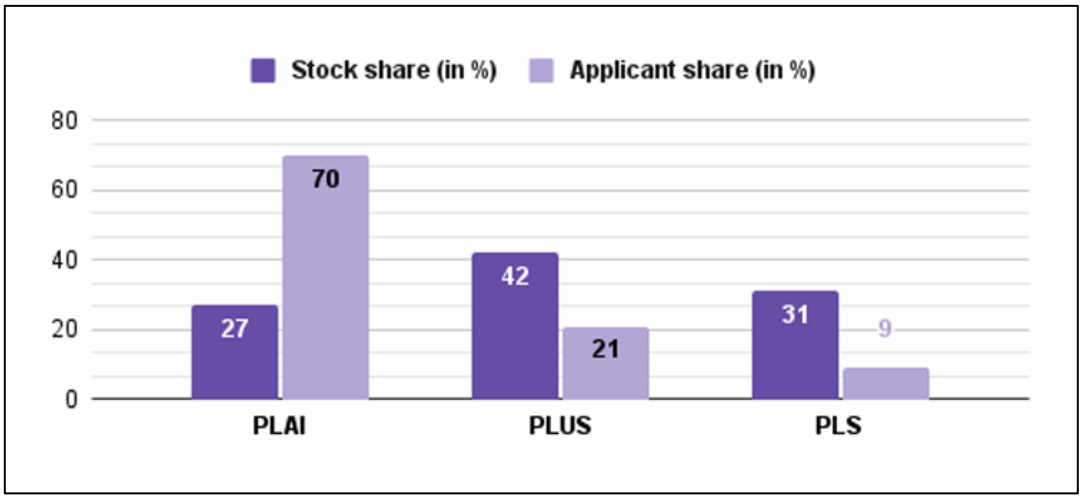

Figure 6 - Stock and applicant share by social housing category in Paris (Source: Apur, 2023)

Orléans and Sens: Smaller cities but specific challenges

In Orléans, we observed a more balanced approach: soft densification, adaptive reuse, and policy experimentation have helped limit exclusionary effects – however nuanced by patterns of suburban expansion following the *lotissement* model. Local planning agencies such as TOPOS work closely with civil society to design socially sensitive policies.

Figure 7 - The Dessaux Vinegar Factory, a brownfield located in downtown Orléans. (Source: Authors' own, 2025)

In contrast, Sens illustrates the limitations of environmental and housing policies in low-capacity contexts. The city lacks structured municipal initiatives in terms of ecological transition, and its policies remain fragmented and often reactive. However, the emergence of local associations such as Sens 4 Etoiles reflects a growing awareness of intersecting environmental and social issues as it mobilizes local residents under the form of public visits and discussion around planning questions, often compensating for the absence of proactive public intervention in a search for more coordinated planning.

Figure 8 - Social housing dwellings in rue de la Folie-Jeannot, Sens. On the left, the dwelling didn't undergo renovation whereas on the left it did (Source: Authors' own, 2025)

Milan: Retrofitting challenges and the financial green shift

In Milan, there is a decreasing social housing stock, mainly characterized by aging buildings that would benefit from more municipal consideration and support for energy retrofitting. Although some progressive housing cooperatives exist, they remain marginal. Meanwhile, green infrastructure in gentrifying districts has helped rebrand the city under the guise of financialization but risks displacing residents from previously affordable neighbourhoods (cf Porta Nuova district).

Figure 9 - Recently redeveloped Porta Nuova district in Milan (Source: Authors' own, 2025)

London: The contradictions of a market-driven transition

London's green transition is deeply shaped by liberalized housing and planning markets. The Queen Elizabeth Olympic Park redevelopment, for example, illustrates how flagship green infrastructure can mask displacement and social cleansing. While local community organizations (e.g., Just Space, WECH) fight to influence planning decisions, many residents expressed fatigue and skepticism over "participation without power."

Figure 10 - Sign installed at the base of the ArcelorMittal Tower, built for the 2012 Olympic Games, London (Source: Authors' own, 2025)

Strategic Takeaways & Policy Recommendations

Based on our cross-case comparative analysis and multi-scale fieldwork, we finally proposed a set of policy directions for advancing urban ecological transitions that aims to be environmentally ambitious and socially equitable. These recommendations reflect both the empirical and comparative findings of our study as well as the priorities expressed by stakeholders across our five case studies. Here is a summarized list of our policy proposals sorted by area of actions:

Nature-Based Solutions

- We advocate for a deeper integration of unmanaged green spaces (e.g. brownfields, vegetated interstices) into zoning plans to support urban cooling and ecological resilience. In order to prevent green gentrification, we recommend applying localized rent caps in high-pressure areas and expanding citizen-led greening initiatives (e.g. Du vert près de chez moi, community gardens) in underserved neighbourhoods.

Energy Retrofitting

- We advocate for the redirection of subsidies toward low- and middle-income households and the social housing stock, enabling large-scale renovations that reduce energy poverty. We also recommend to further include private renters as stakeholders by granting them rights to request energy diagnostics and municipal intervention when owners neglect retrofitting.

Densification

- We stand for the effective tackling of under-occupation and housing shortages through progressive taxation on vacant properties, promotion of co-living models, and vertical densification (e.g. adding 1–2 floors) in small to mid-sized cities via more flexible PLUs. We advocate for the promotion of a balanced social housing mix, with affordability tied to local income levels and criteria that guarantee housing for very low-income applicants.

Community-Managed Housing:

- We recommend encouraging resident-led housing governance through partnerships with cooperatives and associations (e.g. WECH, Dar=Casa), offering legal and technical support to overcome co-ownership inertia and build long-term engagement in housing management.

Our findings also highlight the limits of existing tools, by showing that policy documents and official data rarely capture the full complexity of local dynamics. Nevertheless, our project demonstrates that urban ecological transitions can be reimagined. There is in fact growing awareness among institutional actors of the need to consider social impacts, and there are promising examples—both institutional and grassroots—of policies that combine environmental and social goals.

In conclusion, we affirm that a just ecological transition is not only desirable but also possible. It requires cities to move beyond viewing housing and climate as separate agendas and instead treat them as two sides of the same challenge.

LEARNINGS

As this synthesis concludes, a first key learning emerging from the project is the importance for professionals—particularly urban planners, housing officials, and energy transition consultants—to integrate systematic assessments of social impacts into their practices In that sense, rather than treating housing and environmental goals separately, this research calls for adjusting professional routines towards greater sensibility to affordability and equality issues, especially when it comes to the design and implementation of urban climate transitions measures.

From a more reflexive perspective, this Capstone project proved to be rich in learning on multiple levels—professional, organizational, and academic. Through its structure, supervision, and its integration within the European ReHousIn research framework, the mission that guided the project offered significant opportunities for deep engagement and knowledge acquisition.

On the academic side, this project aimed to make a meaningful contribution to the scientific understanding of the trade-offs between climate adaptation and transition policies and housing accessibility in urban contexts. It required us, first, to define and structure a suited research question, and second, to conduct the work with a level of methodological rigor following the ambition of the topic. In doing so, the project marked a significant milestone in our academic training in research methods. We gained valuable experience, particularly in how to extract, interpret, and apply scientific content. In this regard, the field visits and numerous semi-structured interviews conducted across the five cities studied were especially formative, aligning fully with the practice-oriented and context-sensitive pedagogical approach of the Urban School's GETIC Master's program.

Moreover, for many of us, this Capstone project represented a rare opportunity to contribute to a long-term research process, extending well beyond the scope of a typical semester. The nine-month timeframe allowed for deeper engagement with the subject matter and involved constant collective reformulation and clarification of our research focus, in response to the initial framing provided by our partner. This process proved methodologically instructive and professionally enriching, as the project required us to operate within a calendar structured by milestones, deadlines, and regular team meetings.

In conclusion, the five students from Sciences Po's Urban School who took part in this Capstone project, conducted in partnership with AESOP and aimed at advancing research on the social impacts of climate transition policies on housing accessibility across diverse European and national contexts, are proud to have contributed to such a comprehensive and intellectually rewarding initiative—one that has provided substantial academic, professional, and personal growth.

FIND OUT MORE

Anguelovski, I., Connolly , J., & Livia Brand, A. (2018). From landscapes of utopia to the margins of the green urban life. https://www.tandfonline.com/doi/full/10.1080/13604813.2018.1473126

Baeten, G., Westin, S., Pull, E., & Molina, I. (2017). Pressure and violence: Housing renovation and displacement in Sweden. Environment and Planning A: Economy and Space, 49(3), 631–651. https://doi.org/10.1177/0308518X16676271

Cavicchia, R., Friesenecker, M., Peverini, M., Munson, L., Susani, A., & Waneska De Jesus, K. (2023). Greener housing, but affordable? A study of synergies and conflicts between environmental policy instruments and access to housing.

Debrunner, G. (2024). Introduction. In G. Debrunner (Ed.), The Business of Densification: Governing Land for Social Sustainability in Housing (pp. 1–12). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-49014-9_1

Housing Europe. (2023). The State of Housing in Europe 2023 https://www.stateofhousing.eu/#p=1

The Capstone project: an original educational tool

Thanks to this original tool, students are placed in a work situation on a real problem posed by a public, private, or associative organisation. For all the Masters of the Urban School, the structure and management are identical: the project is jointly monitored by the the Urban School and the partners, at all phases of the project, and regular methodological supervision is provided by a professional or academic tutor specialised in the issue. The Capstone projects allow the partners to take advantage of the research and training acquired within the Urban School, to benefit from the production of studies and quality work, and to have a capacity for innovation.

Capstone projects are a great tool to study, diagnose, forecast, lead a comparative analysis, even to prepare for evaluation, and more generally to deal with any problem that can enlighten the organisation concerned in a logic of "R&D ". Each project mobilises a group of first-year students from one of the Urban School's Master's. Students work between 1.5 days and 2 days per week on dedicated time slots, for a period of 6 to 9 months (depending on the Master's concerned). In Executive education, collective projects concern the Executive Master "Territorial governance and urban development" and mobilize professionals for a period of 4 months.

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