Rebuilding Venice: Housing, Climate Adaptation and Practical Urban Retrofitting

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A city to inhabit, not only to preserve

Venice presents an acute version of challenges facing many European cities: *how can the existing urban fabric continue to sustain everyday life while adapting to environmental change and shifting economic pressures?* Its historic centre is a living urban system in which the loss of permanent residents, the changing use of buildings mainly to touristic pressure, the cost of rehabilitation and exposure to climate hazards reinforce one another. The central proposition of this session is that **rebuilding Venice needs to consider reinforcing affordability and occupation of its residential capacity and its climate adaptation capacity as integrated agendas.**

The magnitude of demographic change is instructive. The independent housing observatory OCIO reports 46,964 residents and 50,207 tourist beds in the historic city in September 2026, compared with 52,760 residents and 44,484 tourist beds in April 2023 (OCIO, 2026). These figures describe accommodation capacity rather than actual tourist occupancy, but their reversal is a powerful indicator of competing uses of scarce urban space. The session briefing also points to a substantial stock of unused housing; its figure of 26% should be treated as a working estimate requiring clarification of geography, period and definition before being used as an official baseline. An apparently vacant dwelling may be physically unsuitable, legally unavailable, used intermittently or held outside the ordinary rental market. Thus, the challenge is not simply to count empty properties, but to understand which homes can realistically return to stable residential use and under what conditions.

The historical perspective matters. The Venice Sustainability Foundation's Storia della resilienza di Venezia (De Marchi et al., 2025) reconstructs two centuries of adjustments in housing, economic activity, infrastructure and relations with the lagoon. It presents resilience not as the preservation of an unchanging urban form but as the capacity to renegotiate the relationship between urbs and civitas. This distinction is central to the present discussion: protecting the material city while progressively losing the social practices, services and resident communities that sustain it would constitute an incomplete form of resilience. The task is therefore to connect conservation to a credible renewal of ordinary urban life.

Affordability is a question of urban function and vitality

The European housing crisis provides an important comparative context. According to the European Commission's Affordable Housing Plan, nominal house prices rose by more than 60% across the EU between 2013 and 2024, while average rents increased by around 20%; approximately one fifth of the European housing stock is unoccupied (European Commission, 2025). These aggregate figures do not describe Venice's specific affordability gap, but they underscore why the reuse of existing buildings has become a strategic issue for European policy. In Venice, accessibility depends not only on the rent or purchase price but also on the costs of maintaining historic buildings, exposure to flooding, energy expenditure, mobility and the availability of services that make long-term residence possible.

This perspective shifts the question from how to increase the nominal housing supply to whose needs that supply should serve. Permanent residents, young households, students, essential workers and groups at risk of displacement may face different barriers to accessing housing. Rehabilitating a property does not necessarily make it affordable, just as improving its energy performance does not guarantee that residents can meet the costs of occupying it. The central challenge is therefore to understand how renovation costs, housing prices, tenure arrangements and long-term residential use interact, and under what conditions investment in the existing building stock can contribute to a more accessible city.

This interpretation is supported by the Venice Sustainability Foundation's Scenario di *sostenibilità urbana integrata* (De Marchi, Oliva and Pace, 2025). Its consultation of 17 member organizations identifies residential revitalization alongside sustainable tourism, lagoon protection and the transformation of Porto Marghera as mutually connected strategic priorities. The study is a stakeholder survey, not a representative household sample, yet its value lies in demonstrating that the housing question is already recognized across institutional, academic and business actors as part of a wider metropolitan transition. Its concept of "functional Venice" also cautions against treating the historic center as an isolated housing market: commuting, employment, education and service access connect it to the mainland and a wider urban region.

Climate resilience is urgent for the building project

Climate change adds another layer of urgency and uncertainty. ISPRA estimates that relative mean sea level in Venice increased by 4.8 mm per year during 1993–2024, almost twice the long-term rate of 2.6 mm per year recorded for 1872–2024 (ISPRA, 2025). Relative sea-level rise reflects both ocean-level change and local subsidence. Flood defenses are indispensable, but they cannot substitute for adaptation at building and neighborhood scales. The European Environment Agency's first European Climate Risk Assessment identifies interacting risks to infrastructure, health, ecosystems and financial stability, warning that many already require urgent action (EEA, 2024).

For the historic city, resilience must be understood beyond protection against exceptional high-water events. Recurrent dampness and salt exposure, overheating, inadequate ventilation, energy inefficiency and difficulties in accessing or maintaining buildings affect the feasibility and quality of residential reuse. Addressing these pressures through renovation raises difficult questions about the compatibility of technical performance, heritage conservation, habitability and cost. Measures that improve energy efficiency or reduce climate-related risks may involve trade-offs with the preservation of historic materials, the configuration of existing buildings or the financial viability of rehabilitation. These constraints make it necessary to consider how adaptation priorities should be defined for different building typologies, rather than assuming that approaches developed for conventional building-renovation programmes can be transferred directly to Venice.

From underused assets to feasible projects

An important question concerns the scale at which residential rehabilitation can be most effectively organized. Individual dwellings, entire buildings, building clusters and portfolios of properties present different opportunities and constraints for coordinating works, mobilizing investment and connecting rehabilitation to surrounding public spaces and services.

The selection criteria should examine structural condition, flood and heat exposure, accessibility, location, ownership, renovation costs and the social and heritage value of the proposed use. The European Affordable Housing Plan connects renovation, the repurposing of existing buildings, investment mobilization and action in areas under housing pressure (European Commission, 2025). For Venice, the question is how these objectives might translate into financially viable rehabilitation without transferring disproportionate costs to residents or directing public resources towards uses that do not support long-term residential needs. Different arrangements involving public authorities, institutional owners and private investors would distribute costs, risks and benefits differently. Their implications need to be considered alongside the conditions attached to public support, the duration of affordable occupancy and the responsibilities of property owners. Pilot interventions could offer one way to test these relationships, provided their selection and evaluation do not presuppose that the same model will be suitable across different buildings and ownership contexts.

A further implication emerges from *Venezia Città Circolare* (Colombara et al., 2025), which frames circularity as an urban strategy. Applied to residential regeneration, this suggests prioritizing the continued use and adaptation of existing buildings, minimizing unnecessary material replacement, and considering the whole-life environmental costs of renovation. However, a technically successful refurbishment may reinforce displacement if its eventual tenure and price are left unspecified. Each candidate intervention should therefore be assessed considering trade-offs against a combined test of embodied resources, operational performance, climate exposure, long-term affordability and its contribution to urban functions .

Rebuilding Venice is a governance choice

The challenges of residential rehabilitation are not exclusively technical or financial. The same building can be viewed simultaneously as private wealth, cultural heritage, tourist accommodation, a potential home and an adaptation liability. These different interests involve actors with distinct responsibilities, resources and priorities, raising questions about how decisions are made and who bears the costs and risks of intervention. Aligning these interests calls for governance arrangements that bring together planning and housing authorities, heritage bodies, property owners, investors, residents and community organizations from the outset. Participation matters not only for legitimacy but also for identifying needs that property inventories and financial models cannot reveal. The issue is not only how to coordinate planning and housing authorities, heritage bodies, property owners, investors, residents and community organizations, but how responsibilities, costs and benefits are distributed among them.

The PSSG should work towards a practical and replicable plan rather than a universal master solution. A useful outcome would be a shared set of criteria for choosing buildings, a menu of retrofit and climate-adaptation options appropriate to different typologies, feasible housing and financing models, and a governance pathway specifying responsibilities and safeguards. This requires considering what makes a building worth rehabilitating, how heritage conservation, energy efficiency and climate adaptation can be reconciled, and whether the resulting benefits will remain accessible to residents over time. Four questions can structure the discussion: How can local housing be valued in a context of overtourism without making it economically inaccessible? Which buildings and retrofit strategies should we prioritise, and how can we balance heritage, energy efficiency,

affordability and social benefits? How can we integrate flood adaptation and other climate risks into renovation strategies and viable business models? What governance agreements and conditions are needed to ensure that rehabilitation produces lasting residential and social benefits? Venice can then be approached not only as an exceptional place in need of protection, but as a testing ground for a broader European agenda of socially just, climate-resilient urban regeneration.

VSF's integrated-sustainability agenda provides a useful institutional reference for this shift from isolated projects to coordinated action. The Foundation's 2026 activity reporting describes cooperation among public authorities, universities and businesses, including the Venice Resilience Hub; this establishes a relevant arena for exchanging knowledge, although it does not in itself demonstrate that a specific housing delivery mechanism is already operational (VSF, 2026). For the session, the practical question is how such networks can become accountable arrangements: who identifies eligible assets, who carries the renovation risk, who guarantees affordable occupancy, and which indicators will establish whether residential capacity has actually been restored?

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