

Temporary student housing as a driver of urban regeneration and territorial revitalisation

RESEARCH AND
EXPERIMENTATION

Luisa Collina, <https://orcid.org/0000-0003-0060-1423>
Laura Galluzzo, <https://orcid.org/0000-0002-5320-3878>
Elisa Cinelli, <https://orcid.org/0000-0002-4856-6455>
Claudia Mastrantoni, <https://orcid.org/0000-0003-4956-9460>
Department of Design, Politecnico di Milano, Italy

luisa.collina@polimi.it
laura.galluzzo@polimi.it
elisa.cinelli@polimi.it
claudia.mastrantoni@polimi.it

Abstract. This essay explores the role of temporary student housing in urban regeneration and territorial revitalisation, focusing on adaptive reuse of abandoned buildings and underused spaces. It examines a feasibility study of a project in Lentate sul Seveso, Italy, where a former military park is being transformed into student housing and community spaces with funding from Italy's National Recovery and Resilience Plan (PNRR). The essay highlights the potential of temporary housing to foster economic, social, and cultural revitalisation, while addressing student housing needs. It also underscores the critical role of universities in collaborating with local municipalities and communities to design inclusive, sustainable solutions for long-term urban recovery.

Keywords: Spatial Design; Service Design; Temporary Student Housing; Urban Renovation; Adaptive Reuse.

Introduction

The challenges of urban transformation and territorial recovery are becoming increasingly urgent as cities and regions across Europe confront the need for sustainable development, social inclusion, and economic revitalisation. In this context, student housing and temporary living solutions emerge as critical tools, not only for addressing the immediate accommodation needs of young people but also for driving broader strategies of urban and rural regeneration. The growing urgency to address these challenges is compounded by the current state of many urban areas, where abandoned buildings and disused spaces are widespread. This vacant heritage represents both a challenge and an opportunity, as these underutilised spaces hold immense potential for sustainable development and can offer a viable response to the waste of resources. Reimagining these neglected spaces through adaptive reuse and temporary housing solutions provides an innovative way to address urban housing shortages, while contributing to broader urban regeneration efforts.

This essay explores the potential of temporary housing to contribute to enhancing the value of territorial identity, the preservation of architectural heritage, and the reorganisation of fragile and underdeveloped areas. By transforming abandoned buildings and vacant lots into functional spaces that serve both educational and community purposes, temporary housing solutions can become key drivers of urban and territorial recovery. In doing so, they not only address the immediate needs of students but also contribute to the long-term sustainability and vitality of these regions.

A key focus of this essay is a feasibility study conducted by a university on the adaptive reuse of a former military park in Lentate sul Seveso, Lombardy, Italy. The project aimed to secure funding from Italy's National Recovery and Resilience Plan (PNRR) to transform the site into a hub for student housing and commu-

nity services. The project successfully obtained partial funding, but its full implementation is still ongoing. The case study serves as a practical lens through which to examine both the potential and the limitations of using temporary living projects as tools for territorial recovery and urban regeneration. It highlights how such initiatives can contribute to the revitalisation of local areas, foster social inclusion, and strengthen community ties while preserving the cultural and architectural heritage of the region. Currently, many cities are struggling with the issue of abandoned buildings and vacant lots that contribute to urban decay. This unused space represents an underexploited resource with potential for transformation. Embracing these spaces as part of the solution to urban challenges can lead to innovative, sustainable urban futures. Understanding cities as a source of sustainability options, promoting active collaboration among diverse stakeholders, integrating various perspectives of knowledge and expertise, and encouraging experimentation with different solutions and approaches are all essential components of successful sustainable urban transformation (McCormick *et al.*, 2013). By bringing together universities, local municipalities, private developers, and the community, these projects aim to generate creative and collaborative solutions that have the potential to meet both immediate housing needs and long-term regional development goals.

The key aspect of this research lies in positioning the university not only as a knowledge hub but as an active partner in the implementation of local development policies – an approach that remains largely underexplored in existing studies. By directly engaging with municipalities, private developers, and local communities, the university has played a crucial role in bridging research and practice, ensuring that housing solutions align with broader urban regeneration and territorial recovery objectives. Leveraging interdisciplinary expertise and fostering cross-sector collaboration, this research demonstrates how universities can move beyond their traditional academic role to become catalysts for socially inclusive, environmentally sustainable, and culturally sensitive policy implementation. Through case studies and policy analysis, this paper highlights how temporary housing can serve as a transformative tool for inclusive and sustainable urban development.

Multifunctional temporary living for contemporary urban needs

Temporary living has evolved as a crucial component of urban development, addressing the dynamic needs of modern cities. It encompasses various models of transient housing that cater to specific urban demands, such as accommodating non-

madic lifestyles, providing short-term housing solutions, and revitalising underutilised urban spaces. Temporary living is characterised by its transient nature, offering adaptable solutions that bridge space, time, and usage (Galluzzo, 2022). Temporary living models extend beyond housing to include mixed-use developments and temporary hospitality for diverse populations, such as tourists, migrants, or professionals on short assignments. These designs encourage the transformation of single-purpose spaces into multifunctional hubs, which can accommodate varied needs over time. For instance, spaces initially designed for student use can later adapt to serve as co-living or co-working environments, aligning with the broader goals of urban resilience and sustainability. Creating transformative places also contributes to the sustainability of those spaces, making them suitable in the long term (Collina *et al.*, 2022). Temporary living addresses a spectrum of urban challenges, which are often tied to the temporal and spatial dynamics of urban life, and to evolving land use patterns. An example of a temporary living project shaping urban development is the future Olympic Village in Milan, part of the Milan-Cortina 2026 Winter Olympics, which is expected to have several significant impacts on the city and the surrounding region. These effects can be categorised as urban development, sustainability, and socio-economic. The Olympic Village is anticipated to stimulate urban regeneration, like the transformations seen in previous Olympic cities, namely Sydney and Barcelona. In Sydney, the Olympic Park became a major hub for urban consolidation and commercial activity, while in Barcelona, the Olympic Village played a key role in opening up the city to the sea and promoting urban cohesion (Searle, 2012; De Clasca *et al.* 2019). The Village in Milan, designed to accommodate athletes during the event, will be repurposed as student housing after the Olympics. Located in the Porta Romana district, this project exemplifies how such developments can bridge large events and adjacent neighbourhoods, fostering long-term urban revitalisation. This approach demonstrates how flexible and multifunctional spaces can address diverse urban challenges, contributing to vibrant, resilient, and inclusive communities.

Student housing and its impact on small urban context transformation

Student housing serves as a key example of temporary accommodation solutions that address both immediate housing shortages and the transient nature of student populations. These residences not only meet the pressing needs for affordable housing but also integrate into the broader urban fabric, contributing to the revitalisation of local neighbourhoods. By doing so, student housing helps stimulate local economies, providing a boost to nearby businesses and services. Moreover, it

Student housing serves as a key example of temporary accommodation solutions that address both immediate housing

fosters cultural exchange between students and the surrounding communities, creating opportunities for interaction and collaboration that enrich the social and cultural life of the area. Through these dynamic interactions, student housing plays a crucial role in the transformation and sustainable development of small urban contexts.

The decentralisation of higher educational institutions

Universities and campuses have increasingly been called to adopt a proactive role in addressing urban and social challenges. They now function as key agents of urban development, revitalising peripheral areas at risk of decline and initiating regeneration processes that benefit the broader city. This dual role of academic institutions – as educators and urban catalysts – underscores their growing responsibility in shaping sustainable and inclusive urban transformations (Fassi, 2020). This transformative capacity of universities is deeply connected to the spaces and services they provide, among which student housing stands out as a crucial element. Student housing should not merely be viewed as temporary accommodation for foreign students; rather, it ought to be recognised as a public service, essential for facilitating academic, pedagogical, and research endeavours, while also offering amenities and services that foster collective cultural and recreational development, thereby generating new human and social capital (Bellini *et al.*, 2020). The decentralisation of university campuses, initiated by the Bologna Declaration of 1999, has led to the development of academic spaces in underutilised urban areas, including the construction of new facilities and the repurposing of industrial sites as for instance the Roma Tre University's Testaccio Campus, the Politecnico di Milano's Bovisa Campus (Fassi, 2020). This shift primarily targeted marginal zones of large cities, revitalising them through educational and cultural activity. However, the rationale of decentralisation extends beyond the boundaries of metropolitan centres, influencing smaller cities located near major urban areas. These smaller cities, connected to large urban hubs, offer unique opportunities for integrating public infrastructure with local development.

By fostering proximity to educational institutions, tailored accommodations not only support students but also serve as a catalyst for downtown revitalisation (Charbonneau, et. Al., 2006). This integration can stimulate local economic growth, attract new businesses, and encourage urban renewal, transforming smaller cities into vibrant nodes of activity that complement their larger neighbouring urban centres. Through such strategies, student housing can contribute to sustainable urban development while strengthening the social and economic fabric of the surrounding regions.

Public Policy Strategies for Enhancing Small Urban Contexts

Policies under Italy's National Recovery and Resilience Plan (PNRR) further bolster these efforts, particularly through targeted investments in small towns and villages ("borghi"). These policies aim to revitalise historic and underpopulated areas, fostering cultural, economic, and social regeneration by creating opportunities for sustainable tourism, local business development, and infrastructure modernisation. By connecting these initiatives with broader urban and educational development strategies, PNRR funding seeks to transform *borghi* into hubs of innovation and resilience, ensuring their relevance in a rapidly changing socio-economic landscape. This alignment underscores the importance of linking academic infrastructure, such as student housing, with the revitalisation of small, historically significant places, further bridging urban and rural development goals.

An overview of student housing normative framework in Italy

Student housing plays a crucial role in improving living conditions, advancing architectural innovation, and fostering social and urban development (Bologna, 2022). In Italy, this role has been influenced by significant policy and funding shifts that have shaped its evolution. Over the years, public initiatives have transitioned from direct government management to more collaborative public-private partnerships (PPPs), reflecting broader socio-economic and urban policy trends. The subsequent overview of the normative framework is elaborated in Bertoni's thesis (2024). Law 338/2000 marked a significant turning point by formalising a co-financing mechanism to support the development of student housing. This law shifted the government's role from directly managing projects to acting as a financer and coordinator, emphasising flexibility and adherence to building standards. Subsequent decrees, such as 42/2007 and 27/2011, introduced more detailed building standards and dimensional criteria. These included mandatory spaces like study rooms and communal kitchens, aiming to balance cost-efficiency with quality standards. By 2016, decrees further reduced room size requirements while maintaining focus on maximising the number of beds. These measures contributed to the creation of approximately 11,500 new beds through 90 projects, supported by €420 million in funding.

The statistics on Italy's student housing illustrate a significant gap compared to other European nations. In 2020, Italy had approximately 42,732 university dormitory beds, less than a third of the availability in France and Germany. The challenges are compounded by cultural and systemic factors: 68% of Italian university students live with their parents, compared to the European average of 33%. Only 5% of Italian students reside in

university accommodations, far below the 17% European average. Furthermore, about 40,000 out of 400,000 students who live away from home rely on public or semi-public university housing. Even among students eligible for scholarships, only about a third receive housing support (Gainsforth and Peverini, 2022; Gwosc *et al.*, 2021). The 2020 pandemic accelerated changes in the student housing landscape, supported by the EU Recovery Fund. This fund, part of the Next Generation EU programme, aims to promote ecological and digital transitions while addressing territorial disparities. Italy integrated these objectives into its National Recovery and Resilience Plan (PNRR), allocating €1,998 billion to create 60,000 additional student residence beds by 2026, raising the national total from 45,000 to 105,000. This measure represents a significant policy evolution; however, it faces challenges in its practical implementation.

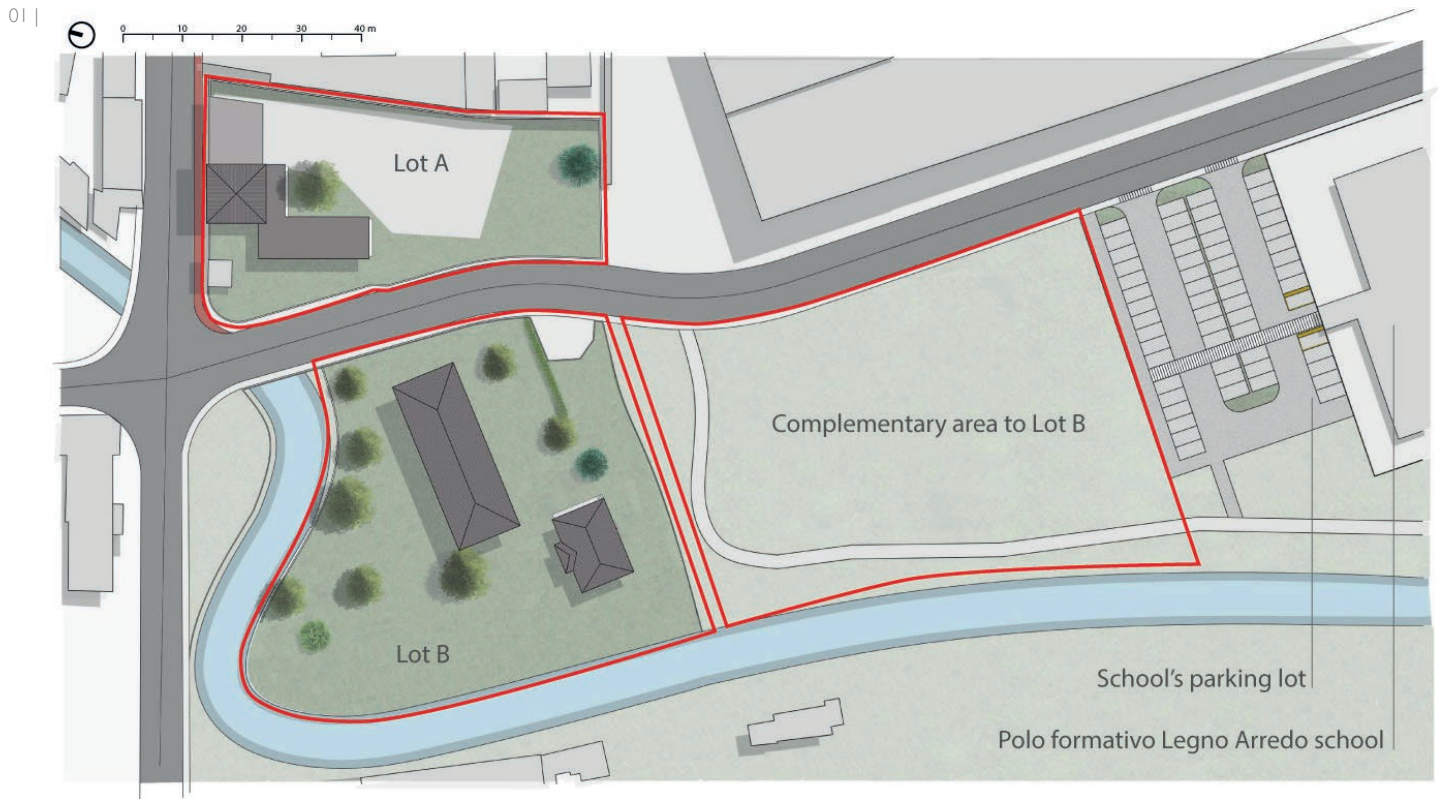
Case study: a feasibility study of a former military park renovation

The renovation of a former military park into a multifunctional hub, featuring student residences and community spaces, serves as a case study demonstrating how sustainable design and adaptive reuse can meet local needs while aligning with national policies such as Italy's PNRR. Developed by a research group from the Design Department at Politecnico di Milano in collaboration with the Municipality of Lentate sul Seveso, the project aims to transform the former military park into a multifunctional hub that fosters educational opportunities and stimulates economic development in "rurban" (rural + urban) settings, fostering a link between urban and rural growth (OECD, 2020, cited in Borin, 2022). Moreover, it exemplifies the potential of adaptive reuse to create spaces that not only serve immediate functional needs but also contribute to long-term regional development.

Context and aim of the project

The requalification project for the Former Military Park is located in Lentate sul Seveso, a city with strategic connections to major northern Italian urban centres, including Milan. Lentate sul Seveso has a long-standing association with the wood furniture industry, which is reflected in the presence of the *Polo Formativo Legno Arredo*, a high school renowned for its focus on furniture craftsmanship and design. The park, adjacent to this institution and within close proximity to the Lentate/Camnago railway station, has been neglected since the cessation of its military functions. Despite the deteriorated condition of its buildings, the site boasts 3,500 square metres of green space enriched by the natural course of the Seveso River, and possesses considerable architectural and cultural significance.

The primary objective is to support the educational growth of the Polo Formativo Legno Arredo, while fostering community



engagement. By aligning with the region's historical and cultural context, the project creates synergy between educational advancement and heritage preservation. As Manzini (2006) notes, "Macro-transformations are often the result of micro-transformations and local systemic discontinuities," emphasising the potential of localised design interventions to drive broader systemic changes.

The design process and design outputs

The intervention area is divided into Lot A for community-oriented functions, and Lot B for residential services, with an adjacent space for parking (Fig. 1).

The design includes accommodations for students, teachers, and professionals from the Polo Formativo Legno Arredo, alongside community spaces such as a children's playroom, a house of associations, and a social club. The transformation of the former military park in Lentate sul Seveso reflects a comprehensive approach that integrates policies, multifunctionality, and institutional collaboration. The project began with an in-depth evaluation of the abandoned site, identifying local needs and potential user groups through collaborative efforts with local authorities and stakeholders. This led to a feasibility

study outlining services and spatial layouts aligned with Italy's National Recovery and Resilience Plan (PNRR), specifically Mission 4, which focuses on expanding educational infrastructure, including student housing. The PNRR emphasises fostering ecological and digital advancements, aiming to bridge disparities between urban hubs and smaller communities, supporting sustainable growth at multiple levels.

The project followed key stages, precisely site assessments, definition of potential users, determining a design solution for a feasibility analysis, ensuring alignment with the PNRR's sustainability and educational objectives. The redevelopment reconfigures deteriorated structures (Figs. 2, 3), introducing residential services with varied accommodation types – one-bedroom apartments, small, shared units, and larger student residences (Figs. 4, 5).

In addition to residential services, the project integrates community facilities, including an event room, community gardens, and a multi-sport field. The multifunctional spaces host a children's area, a bar/social club, and a community association centre designed for flexible use and local engagement (Fig. 6). This comprehensive design fosters connections between temporary residents and the local community, a central aspect of the project.

02 |



| 03

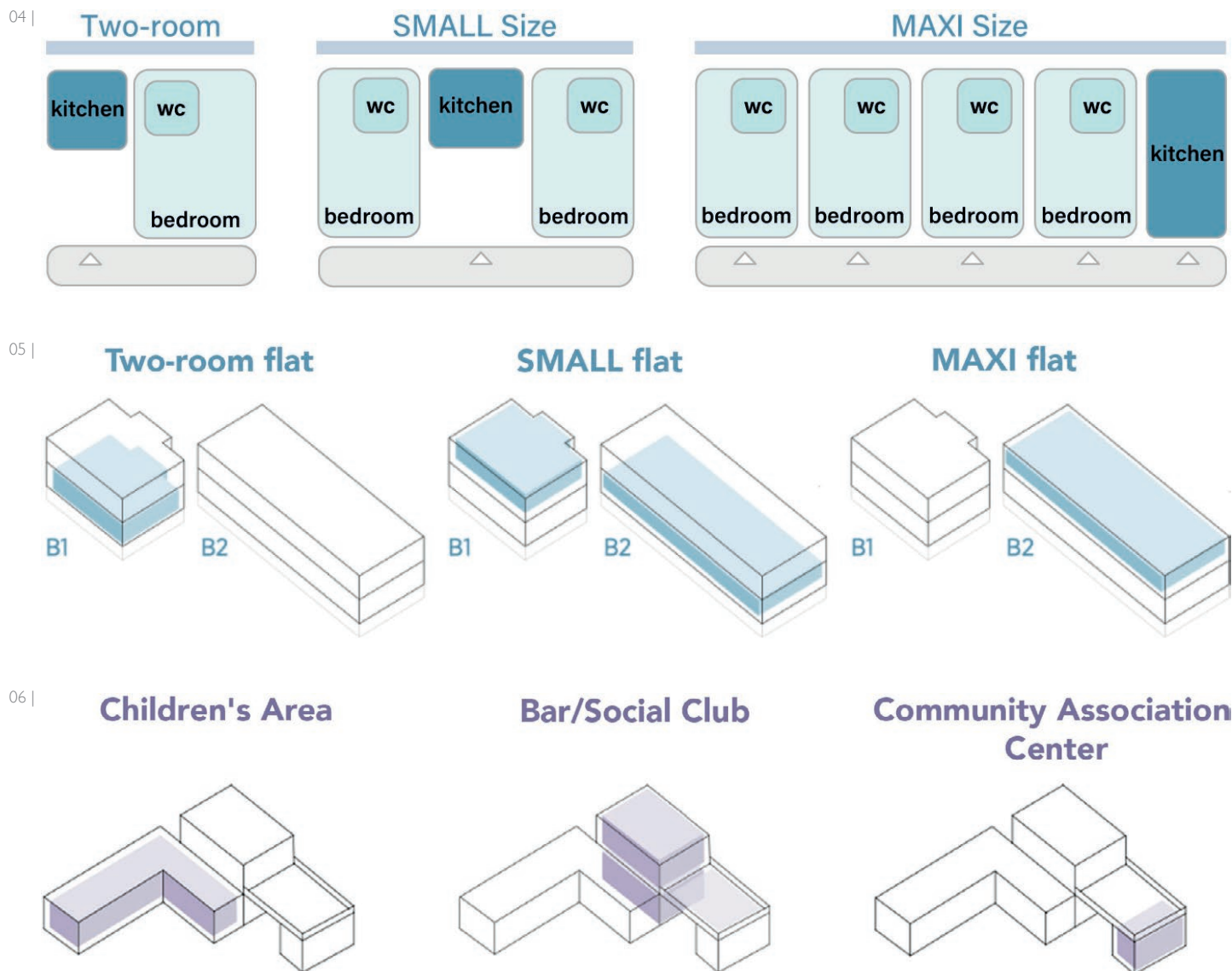


The design also reimagines the green spaces as shared vegetable gardens to foster connections between temporary residents and the local community. These gardens encourage environmental awareness, civic participation, and a sense of ownership (Twiss *et al.*, 2011). They also serve as venues for events and activities that strengthen community bonds and enhance the site's utility.

Policies, Temporary-multifunctionality and Institutional partnerships

A key feature of the project is its adaptability, with spaces designed to serve both student housing and community engagement functions. This multifunctionality ensures the longevity of the site, allowing it to evolve over time to meet diverse needs—from student accommodation to services for the elderly—and minimising the risk of obsolescence (Collina *et al.*, 2022). The concept of the “regenerative economy” (Manzini, 2006) under-

pins the design philosophy, transforming abandoned spaces into vibrant community hubs. Accessibility is central to the project, with universal design principles ensuring inclusivity, while flexible layouts support evolving public needs, a necessity highlighted by the Covid-19 pandemic (Stevens *et al.*, 2021). The project also balances environmental sustainability with cultural heritage preservation, respecting the site's *genius loci* (Norberg-Schulz, 1979) and enhancing its historical significance. This holistic approach – blending social, ecological, and cultural dimensions – creates meaningful environments that foster community engagement and sustainable growth (Bullen and Love, 2011). Institutional collaboration played a critical role in the project's development. Partnerships between the municipality, the Politecnico di Milano, and stakeholders like the Polo Formativo Legno Arredo and Federlegno merged academic research with local expertise. This inclusive approach engaged a diverse range



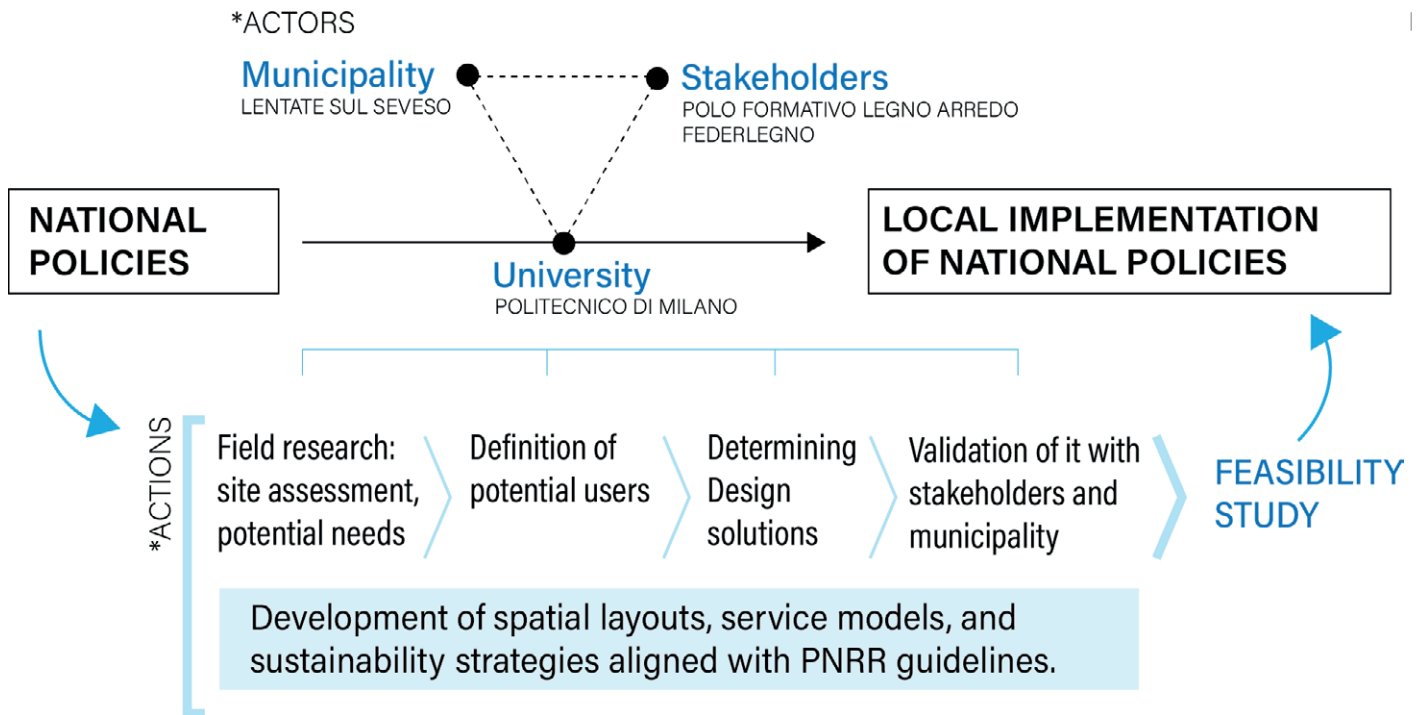
of actors – politicians, private sector stakeholders, and academics. As depicted in the conceptual map in Figure 7, which illustrates the relationships between these actors and actions, the process allowed for the local implementation of national policies. The university's contribution was used as a foundation for the adaptation of these policies at the local level.

Conclusion: integrating education, housing and local development

public and private, such as student housing (Honey-Rosés *et al.*,

The Covid-19 pandemic highlighted the need to rethink urban spaces, particularly those that blur the lines between public and private, such as student housing (Honey-Rosés *et al.*,

2020). The crisis exacerbated existing challenges related to habitability, emphasising the need for spaces that balance individual privacy with community-oriented shared areas. Student housing can play a crucial role in urban regeneration by promoting inclusivity and fostering a sense of community. It serves as a “social condenser,” attracting youthful populations and contributing to urban cohesion, which is essential for overcoming the fragmentation of cities and creating more inclusive urban environments (Bellini *et al.*, 2015). This project reimagines student housing not only as functional but also as a space for cultural and social integration, offering innovative solutions to contemporary challenges.



Aligned with Italy's National Recovery and Resilience Plan (PNRR), the feasibility study emphasises sustainability, adaptability to green and digital transitions, and improved educational infrastructure. It also reflects Mission 4 (Education and Research), focusing on enhancing accessibility and quality in educational environments. Special care was taken to revise student housing standards, ensuring a balance between regulatory requirements and improved living conditions.

The paper highlights the potential of temporary housing to foster economic, social, and cultural revitalisation, addressing immediate student housing needs while contributing to long-term urban recovery. The multifunctional and temporal nature of such housing models offer a unique opportunity to generate positivity, creating adaptable spaces that serve different purposes over time, and which can evolve with the needs of the community. This adaptability, combined with collaboration between universities, local municipalities, and communities, provides a sustainable framework for urban regeneration. By fostering cooperation among diverse stakeholders, universities can help create resilient, vibrant communities that support both short-term needs and long-term growth, thus contributing to the broader goals of territorial revitalisation.

REFERENCES

Bellini, O.E., Bellintani, S., Ciaramella, A. and Gatto, M.L.D. (2015), *Learning and living. Abitare lo Student Housing*, FrancoAngeli, Milano.

Bellini, O.E., Gambaro, M. and Mocchi, M. (2020), "Living and learning: A new identity for student housing in city suburbs", in Della Torre, S., Cattaneo, S., Lenzi, C. and Zanelli, A. (Eds.), *Regeneration of the Built Environment from a Circular Economy Perspective*, Research for Development, Springer, Cham. Available at: https://doi.org/10.1007/978-3-030-33256-3_11 (Accessed on 03/04/2024).

Bertoni, F.A. (2024), *Student housing in Italy: Historical development and policy impact* [Master's thesis, Politecnico di Milano], PoliTESI Repository. Available at: <https://hdl.handle.net/10589/227541> (Accessed on 03/04/2024).

Bologna, R. (2022), "Student housing in architectural renovation and urban regeneration projects", *TECHNE: Journal of Technology for Architecture & Environment*, No. 24, pp. 198–206. Available at: <https://doi.org/10.36253/techne-12855> (Accessed on 03/04/2024).

Borin, A. (2022), "Temporary housing solutions in extra-urban contexts", in Galluzzo, L. (Ed.), *Con-temporary living. Unexpected housing solutions in public spaces*, Maggioli Editore, Rimini, pp. 306–314.

Bullen, P.A. and Love, P.E.D. (2011), "Adaptive reuse of heritage buildings", *Structural Survey*, Vol. 29, No. 5, pp. 411–421. Available at: <https://doi.org/10.1108/02630801111182439> (Accessed on 03/04/2024).

Charbonneau, P., Johnson, L.C. and Andrey, J. (2006), "Characteristics of university student housing and implications for urban development in mid-sized cities", *Canadian Journal of Urban Research*, Vol. 15, No. 2, pp. 278–300.

Collina, L., Galluzzo, L., Mastrantoni, C. and Cinelli, E. (2022), "Sustainable recovery and urban public transformation of a former military park", *Beyond All Limits*, pp. 158–163.

De Clasca, J.R., Fenollosa, J. and Tersol, M. (2019), "Barcelona open to the sea", *Revista de Obras Publicas*, Vol. 166, No. 3606, pp. 22–29.

Fassi, D. (2020), "Campuses and the city", in Fassi, D., Landoni, P., Piredda, F. and Salvadeo, P. (Eds.), *Universities as Drivers of Social Innovation*, Research for Development, Springer, Cham, pp. 15–27. Available at: https://doi.org/10.1007/978-3-030-31117-9_2 (Accessed on 03/04/2024).

Gainsforth, S. and Peverini, M. (2022), "Residenze per studenti tra pubblico e privato", in *Casa e abitare nel PNRR. Analisi e prospettive*, Caritas Italiana – Servizio Documentazione, pp. 33–41. Available at: https://archivio.caritas.it/materiali/Italia/qrrp/qrrp_num1_mar2022.pdf (Accessed on 03/04/2024).

Galluzzo, L. (2022), *Con-temporary living. Unexpected housing solutions in public spaces*, Maggioli Editori, Rimini.

Gwosc, C., Hauschildt, K., Wartenbergh-Cras, F. and Schirmer, H. (2021), *Social and economic conditions of student life in Europe: Eurostudent VII 2018–2021 | Synopsis of indicators*, wbv Media GmbH & Company KG. Available at: https://www.eurostudent.eu/download_files/documents/EU-ROSTUDENT_VII_Synopsis_of_Indicators.pdf (Accessed on 03/04/2024).

Honey-Rosés, J., Anguelovski, I., Chireh, V.K., Daher, C., van den Bosch, C.K., Litt, J.S., Mawani, V., McCall, M.K., Orellana, A., Oscilowicz, E., Sánchez, U., Senbel, M., Tan, X., Villagomez, E., Zapata, O. and Nieuwenhuijsen, M.J. (2020), "The impact of COVID-19 on public space: A review of the emerging questions", *Cities & Health*, Vol. 5, Suppl. 1, pp. S263–S279. Available at: <https://doi.org/10.1080/23748834.2020.1780074> (Accessed on 03/04/2024).

Manzini, E. (2006), "Design, ethics and sustainability", *Guidelines for a Transition Phase*, University of Art and Design Helsinki (June), pp. 9–15.

McCormick, K., Anderberg, S., Coenen, L. and Neij, L. (2013), "Advancing sustainable urban transformation", *Journal of Cleaner Production*, Vol. 50, pp. 1–11. Available at: <https://doi.org/10.1016/j.jclepro.2013.01.003> (Accessed on 03/04/2024).

Norberg-Schulz, C. (2019), "Genius loci: Towards a phenomenology of architecture (1979)", *Historic Cities: Issues in Urban Conservation*, Vol. 8.

Searle, G. (2012), "The long-term urban impacts of the Sydney Olympic Games", *Australian Planner*, Vol. 49, No. 3, pp. 195–202. Available at: <https://doi.org/10.1080/07293682.2012.706960> (Accessed on 03/04/2024).

Stevens, N.J., Tavares, S.G. and Salmon, P.M. (2021), "The adaptive capacity of public space under COVID-19: Exploring urban design interventions through a sociotechnical-systems approach", *Human Factors and Ergonomics in Manufacturing & Service Industries*, Vol. 31, No. 4, pp. 333–348. Available at: <https://doi.org/10.1002/hfm.20906> (Accessed on 03/04/2024).

Twiss, J., Dickinson, J., Duma, S., Kleinman, T., Paulsen, H. and Rilveria, L. (2003), "Community gardens: Lessons learned from California Healthy Cities and Communities", *American Journal of Public Health*, Vol. 93, No. 9, pp. 1435–1438. Available at: <https://doi.org/10.2105/AJPH.93.9.1435> (Accessed on 03/04/2024).