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Public real estate as a driver for urban regeneration: an overview of municipal urban plans in Italy

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Abstract

After a long season aimed at regulating urban growth, the theoretical debate and the operational practice of urban planning are now focused on transforming existing cities. In this context, public real estate, particularly buildings and areas that no longer fulfill their original purpose or for which the land use is no longer suitable, has emerged as a crucial resource for cities due to its heterogeneity and widespread availability. In Italy, however, the emphasis has been on selling public assets to address financial deficits, rather than meeting local needs or public interests. This paper focuses on the relationship between public real estate and urban planning strategies at the local level, through the analysis of the municipal urban plans of a selection of urban centers across the Italian territory, to assess how unused or decommissioned public real estate assets are addressed within the planning processes, with a view to urban regeneration.

Keywords Public real estate, Urban regeneration, Municipal urban planning

Introduction

Over the past two centuries, urban areas have been affected by development processes according to different patterns that challenge the meaning of "urban" (Corboz 1998; Hall and Pain 2006; Brenner 2014), which encompasses not only the city itself but also the surrounding territories that are economically, socially, environmentally, and culturally involved (Sassen 1991).

According to forecasts, by 2050, cities will be the place where more than two-thirds of the world's population will reside, and, according to further estimates, the amount is set to reach 85 percent by the end of this century, reinforcing the opinion that main urban centers will face significant issues in terms of over-population and over-urbanization (UN 2018; UN 2019). Because of this, contemporary cities are where the global crisis manifests

itself in various ways, whether it's from an environmental, economic, spatial, or social perspective (Soja 2010). In the current historical period, urban contexts are where a set of tensions of global concern can be found: from the ecological-environmental issue, due to the intensive consumption of natural resources, the increase in energy consumption and the urgencies, which can no longer be postponed, determined by climate change (IPCC 2022), to the economic issue, determined by the fragmentation of production processes and the growing weight of the service economy (Harvey 2012), which inevitably have spatial repercussions (Secchi 2013), leading to conditions of marginality, social inequality and poverty (Amin and Thrift 2005).

The impact of urbanization and the role of cities have been debated by international governments and institutions for a long time. Institutional recognition of urban issues can be traced back to almost fifty years ago (UN 1976), when urbanization was becoming increasingly prevalent and intense, leading to critical levels that are still being observed today. More recently, these

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commitments have received support from the 2030 Agenda for Urban and Sustainable Development. This agenda aligns with significant EU-level policies (EC 2010; EC 2016) and directs European and national policies towards achieving the "17 Sustainable Development Goals". These goals are aimed at promoting development that is compatible with economic growth, social inclusion, and environmental protection. Among the others, Goal No. 11, "Sustainable Cities and Communities," addresses the challenges of urbanization, such as inadequate living conditions for a significant portion of the world's population, as well as the impact on natural resources and public health (UNGA 2015). These principles underpin the EU cohesion policies of the 2021–2027 programming cycle, which are mainly based on the Next Generation EU (NGEU), a financial instrument aimed at providing economic support to member states to ensure their "sustainable, uniform, inclusive and equitable recovery" (EC 2020). These policies agree that an integrated strategy is necessary to address the cross-cutting nature of the issues, contributing to the rise of the "urban regeneration" paradigm, whose process-oriented approach enables the management of rapid changes in the contemporary city. Its institutional recognition dates to the 2010 "Toledo Declaration" (EC 2010), but the term's widespread use can be traced to European Commission initiatives, such as the URBAN and URBACT Programs, which have characterized the season of EU-driven urban policies of the past three decades (Frank et al. 2006). Urban regeneration achieves the evolutionary process that has marked the approach and content of urban policies from the postwar period, according to different levels of intervention in the existing cities, which matured mainly in Great Britain before spreading to European and international scale (Roberts and Sykes 2000).

Despite its overexposure, the gradual adoption of this approach has had a significant impact on urban planning processes (Leary and McCarthy 2013). It has established itself as a new disciplinary reference that combines principles such as sustainability (Brundtland 1987), resilience (Bulkeley and Tuts 2013), and new perspectives of transition, in various forms (Schunz 2022). Throughout the various stages of this process, different components of the city have been involved, including historic centers, residential suburbs, and industrial areas. In fact, with the constant evolution of production processes, technological advances, and changes in the socio-economic and cultural context, these areas have often become disused and abandoned.

In this scenario, less attention has been paid to public real estate, which refers to all spaces and facilities owned by central and local public administrations. This vast stock of areas and buildings is often

underutilized, unused, or abandoned due to a lack of financial resources or the ending of the needs that led to their development. The reasons are to be found in the global economic situation, which has favoured the strengthening of austerity policies, which have led to cuts in public spending, with repercussions on urban space and the system of public services (Peck 2012; Addison and Artioli 2020). Especially in Europe, where the connection between urban areas and public spaces is well-established (Haussermann and Haila 2004), the financial crisis has forced several countries to implement policies of rationalisation, divestment, and alienation of public real estate assets to counteract the increase in public debt according to the new EU budgetary principles (Holberton 2012). In countries where public debt has been a more pressing issue, such as Greece and Spain, privatisation policies for public real estate have been more assertive, aiming to boost the economy during periods of recession through asset sales. In this regard, the United Kingdom was a pioneer in the privatisation of public real estate assets, a process that commenced in the 1980s as a result of deregulation and a reduction in state involvement. This trend gained momentum in the 1990s and was further accelerated during the 2008 global financial crisis. Other countries, such as France and Germany, with stronger state roles in their economies, have adopted a more restrained approach to privatisation. Their policies have been selective and tightly regulated, focusing on non-strategic or underutilised assets. On the other hand, countries like the Netherlands have pursued a more gradual and selective path toward privatisation. In these cases, the motivation has been driven more by efficiency in public asset management than by an immediate need for financial resources (OECD 2009; EC 2018).

In Italy, as in other countries, the financial crisis has led to a reduction in the resources available for public spending and the focus has been on selling surplus assets to reduce the public deficit, with less emphasis on urban planning and territorial development. This was accompanied by a long period of privatisation policies (Camagni 1999; 2008). There has been an overproduction of regulations, which has led to policies being primarily driven by financial criteria, in an attempt by public authorities to promote the privatisation of assets and to balance the finances of public administrations (Carbonara and Stefano 2021). However, the economic crisis and the decline of the real estate market have significantly affected the outcomes. As a result, there has been a gradual shift in perspective towards considering the territorial dimension in alienation procedures and valorisation tools introduced over time (Pileri 2001; Gaeta and Savoldi 2013; Gastaldi and Camerin 2021).

In consideration of the premises, the purpose of this paper is to examine in depth the relationship between public real estate assets and local urban planning tools. The main objective is to assess how public real estate assets, whether decommissioned or no longer in use, are integrated into urban planning processes. These facilities, designated for activities of public interest, play a pivotal role in the provision of services and as catalysts for economic and social development. The decommission or relocation of these functions leaves a gap that is difficult to fill with alternative initiatives that can deliver comparable benefits. Therefore, the fundamental concept is that the valorisation of public real estate assets, should not be solely focused on generating economic value or adhering to market logics. Instead, the objective should be to prioritise the capacity to produce positive externalities on the surrounding territory, thereby benefiting local communities. This approach is consistent with the conceptual framework of urban regeneration, which is characterised by the integration and transversality of intervention policies aimed at addressing the social, environmental, economic, and spatial degradation of disused, degraded, or underutilised urban areas (Paddison 2012).

This study is situated within the broader debate on public real estate, offering an innovative perspective that emphasises its potential role as a driver of urban and territorial development. It proposes moving beyond the predominantly managerial focus prevalent in international analyses, in favour of an exploration of the opportunities that such assets offer in the context of local planning.

Methodologically, the contribution employs an analytical approach based on case studies, with an examination of the urban plans of 45 selected cities on the Italian territory. The municipal urban plans have been examined through a methodological framework structured in four main attributes: (i) *knowledge framework*, (ii) *categories of public real estate assets*, (iii) *valorisation plans and programmes*, and (iv) *strategies and actions*. This approach allows for the identification of both good practices and emerging critical issues, providing a comprehensive overview of the consideration of public real estate in the context of Italian urban planning.

The national and international debate on public real estate

The 'public city' refers to a network of areas and buildings that are significant in their extent and distribution, constituting an essential component of urban contexts. Over time, this system has taken on heterogeneous forms based on the need to match related places to the subjects, responsibilities and purposes that determined their development (Mumford 1961).

Ever since local zoning procedures and control of urban dynamics were established, the public sector has been a 'silent partner' in property development, as a regulatory authority, and public ownership has historically been an essential condition for the regulation of land use and for the setting up of the public service system (Simons 1994). This feature is particularly evident in European cities, where there is an important amount of publicly owned areas, due to the convergence of stakeholders from the political, technical, and collective spheres, as well as the balancing between economic and public interest (Bagnasco and Le Galès 2000). Within this framework, urban planning has recognised public real estate as a quality resource for defining the urban balance of cities (Campos Venuti 1991). Considering the many aspects involved and the different assets belonging to public real estate, the scientific literature is also characterized by an articulated production, marked by different lines of research, from which several main insights emerge.

In the international context, the debate focused on public real estate management by public administrations, both at the state and local levels. Traditionally, public real estate has been understood only as a vehicle for public interest purposes, neglecting its efficiency, which, due to the lack of a dedicated sector and technical figures and a lack of knowledge of its characteristics and state of use, has led to underestimating of the economic impact on the sustainability of public budgets (Dowall 1990; Simons 1994).

However, since the 1980s, with the economic recession and the introduction of new budgetary principles to counter public debt, several governments have adopted a different approach to the management of their real estate assets, introducing mechanisms from the financial sector (Kaganova and Nayyar-Stone 2000; Tanzi and Prakash 2000). The topic has gained popularity following the global financial crisis of 2008 and the resulting austerity policies, which have led to a growing consideration of state-owned real estate and its territorial declinations, thus understood as a financial and productive asset to achieve a new financial solidity (Kaganova 2011).

Numerous studies have investigated how public real estate assets are managed and those that are no longer needed for the accomplishment of institutional purposes or the provision of public services (Evers et al. 2002; Van der Schaaf 2002; Constantin et al. 2018; Marona and Van den Beemt-Tjeerdsma 2018; Kaganova and Telgarsky 2018; Kaganova and Amoils 2020; Gross and Wolny-Kucińska 2021).

Several issues have been recognised in this renewed interest in publicly owned properties, in view of the difficulties for public administrations to combine the use of financial mechanisms with the priority of meeting the

needs of settled communities (Andersson 2009; Christophers 2017). Uncertainty in the real estate market has resulted in rather modest outcomes in financial terms but has affected the availability of spaces and structures that allow public institutions to implement policies and services (Phelps 2011; Bova et al. 2013; Detter and Folster 2015; Whiteside 2019). The topic has been related within the context of studies of the administrative reform of some of the most important European states, which, in a general context of austerity, have encouraged the process of privatizing public real estate assets to address budget deficits and the decrease of public resources (Adisson 2018; Artioli 2021). The prevailing opinion is that evaluating public ownership based on revenue generation through privatisation, rather than on its collective interest purposes, has had significant impacts on urban balances and the distribution of public facilities (Peck 2012; Adisson and Artioli 2020; Besussi 2013).

In Italy, the consideration of public real estate and the perspectives through which the topic has been approached by the scientific community reflect the process of cultural change resulting from the political and institutional approach to the issue. The debate on the topic has been structured around two main orientations. One suggests maximising economic and financial returns through productive management models or revenue from alienation. The other suggests a strategy oriented towards optimising its uses and functions to fulfill social needs and drive urban regeneration and development of cities. In line with the above positions, early studies focused on the analysis of the actual size of publicly owned assets (Carrer 1988), while more recent contributions have analysed issues on the management of public real estate by local governments (Vermiglio 2011) and strategies to achieve an increase in the asset value of surplus public real estate through a valorisation process (Tronconi 2015).

Further studies have focused on identifying functions that can simultaneously ensure the best use of the properties and the financial feasibility of the operations (Tajani and Morano 2017; Carbonara and Stefano 2020; Morena et al. 2021; Manganelli et al. 2022). Institutional reports focus on the legislative innovations introduced to increase the economic and social value of disused public real estate. Theoretical and operational references are provided for the implementation of governance tools aimed at the best use of public properties in relation to their environment (Agenzia del Demanio 2012; 2015). In the field of urban and territorial planning and urban studies, reflection has focused on the territorial relevance of public property (Filpa 2002; Ponzini 2008), on the role that disused or unused assets can play in activating urban regeneration processes (Pileri 2001; Ricci

et al. 2018), on the need to use different approaches than for privately owned property (Moroni et al. 2020), with some specific applications to properties of cultural interest (Ponzini 2009) and military heritage (Infussi et al. 2012; Ponzini and Vani 2014; Gastaldi and Camerin 2016; 2017; 2021). More recently, some lines of research have focused on alternative forms of valorisation, involving the reuse, even temporarily, of unused public assets through the activation of bottom-up processes (Mangialardo and Micelli 2016; 2017; 2018) and the involvement of the resident community (Bellè 2021; 2023). The scientific community acknowledges the significance of acquiring a comprehensive understanding of public real estate and its correlation with the surrounding area. It also recognises the need to reinforce the regulatory framework that balances its preservation with local development. Any proposal to sell public assets must be preceded by a careful evaluation of the public interest in maintaining public ownership of the asset for potential community benefit (Gaeta and Savoldi 2013).

The extent of public real estate on the Italian territory

The public real estate in Italy is vast and heterogeneous, with intrinsic problems resulting from historical circumstances and long-term dynamics that are fundamentally different from those of private property (Tronconi and Ciaramella 2012). It is at the availability of many public actors closely connected to the territory, including central and local administrations and related public bodies, which perform a differentiated range of functions of collective interest (Filpa 2002; Manzo 2015). Reconstructing the assumptions and events that led to the formation of this stock is a challenging task. Its origin can be traced back to needs that preceded the placement of these urban structures within an administrative, legal, and planning framework, as well as the creation of the institutional subjects to which these assets are currently assigned (Angelico and Bellicini 1995).

In 1985, a special commission of inquiry was established to determine the size of public real estate and estimate its economic value. The commission's work was completed in 1987, providing a solid foundation of knowledge on the status of assets owned by public administrations. This allowed for the creation of a map of the entire public sector for the first time (Carrer 1988).

Since 2009, it has been mandatory by law for public administrations to conduct an annual survey of their real estate assets and report the results to the Ministry of Economy and Finance (MEF). This has resulted in the establishment of a comprehensive national database, which represents the most extensive and detailed information resource for the investigation of the

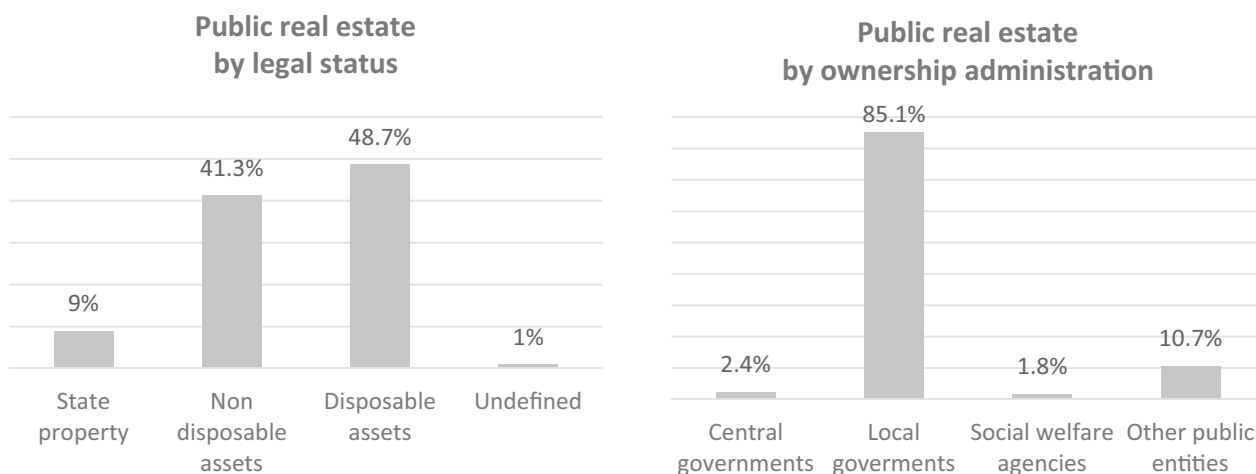


Fig. 1 Public real estate assets by legal status and ownership administration. Source: author’s elaboration based on MEF, 2021

characteristics and conditions of public real estate assets. The information provided pertains to the location and dimensions of the property, its legal nature, ownership and administration, construction period, and the state of use of buildings or land. It also includes any constraints or protections related to cultural and landscape interests. The extent, composition, and characteristics of public real estate can be explored using the available datasets¹ and the latest annual report² published by the Treasury Department of the Ministry of Economy and Finance (MEF).

Based on the latest available data, there are 2,591,758 publicly owned assets, including buildings and land of various types, ownership statuses, and conditions of use. From a legal perspective, 48.7% of the assets are classified as ‘Disposable Assets’ and are not obligated to be linked to the performance of public purposes. Therefore, they can be managed under private law and can be sold or transferred to other administrations. The remaining assets are divided between two categories: ‘Non-disposable Assets’ (41.3%), which is necessarily destined for public services, and State Property (9%), which is inalienable and not usucapable as it is destined for direct use by citizens or for the defence of the nation (Fig. 1).

The public real estate is widely distributed throughout the country due to its close relationship with cities and

their dynamics. However, it is mainly concentrated in the northern region, where approximately 48% of the stock is located. A direct correlation can be observed between the presence of public properties and the resident population when analysing the location of assets about the municipality they pertain to. Around 22% of public real estate units are in the 45 municipalities with a population of over 100,000. This percentage increases to 38% when considering only buildings, indicating a concentration of public real estate assets in major urban centres. Most of the public properties are owned by local administrations,³ particularly municipal administrations, which hold approximately 65% of the total. This demonstrates that asset ownership is predominantly decentralised and spread across the territory. However, analysing real estate portfolios based on surface area reveals significant differences depending on the administrations that own the assets.

Local administrations hold a significant number of real estate assets, while central administrations, particularly the State, possess fewer assets in numerical terms but with a larger average surface area per asset. The total number of buildings is 1,150,512, divided into two main categories. The first category includes residential and commercial buildings, such as dwellings, outbuildings, and business premises. This category accounts for approximately 72% of the total number of buildings but only covers 15% of the total surface area. The second category refers to institutional purposes and includes offices, barracks, sports facilities, and schools. These account for

¹ Open data in processable format on public real estate communicated by public administrations pursuant to Article 2, Paragraph 222 of Law No. 191 of 2009 (2010 Financial Law). Available at: https://www.de.mef.gov.it/attivita_istituzionali/patrimonio_publico/censimento_immobili_publici/open_data_immobili/.

² MEF – Ministry of Economy and Finance, Department of the Treasury, Office IV, Directorate VII Public Property Valuation, Annual Report—Report on Public Administration Real Estate, Data 2018, 2021. Available at: https://www.dt.mef.gov.it/news/2021/rapporto_annuale_pa2018.html.

³ This macro-category includes the following public bodies and administrations: Regions, Provinces, Municipalities, Unions of Municipalities and Mountain Communities, Consortia, Public Hospitals, Local Health Authorities, University Polyclinics, Universities and other local administrations.

approximately 21% numerically, but 81% in terms of surface area.⁴ The data available indicates that a considerable number of buildings were constructed over fifty years ago, with only a small fraction built in recent times, and some even over a century old. This data provides a clear picture of a predominantly outdated and obsolete public real estate stock, despite subsequent efficiency upgrades and redevelopment. The public property stock consists of 1,441,246 units of land, covering 17% of the national territory. Over 97% of the real estate is owned by local governments, with municipalities owning 77% of the assets. Most of the properties consist of agricultural land, accounting for approximately 40%. Land in urban areas, including parks, municipal villas, and gardens, make up 31%. Approximately 27% of the land is wooded or used for pasture, with an additional portion designated as nature reserves or archaeological sites. The 'urban area' and 'agricultural land' typologies account for approximately 5% and 30% of the surface area, respectively, while the 'wooded or pasture land' typology accounts for the remaining 59%.⁵ Over 18% of the land is within legally protected areas of landscape interest, confirming that many units are in strategic contexts of recognized environmental, natural, and identity value. The analysis of the data reveals that a significant portion of public real estate in Italy is unused. Specifically, around 18% of the assets considered in the census, which amounts to over than 460,000 units, are in this condition. This highlights the critical situation that characterises public real estate in Italy. Most unused assets belong to functional categories dedicated to performing public interest activities, such as school buildings, production facilities, and warehouses. The remaining assets fall under the residential and commercial categories (Fig. 2). Approximately 82% of the total number of disused or unused buildings were found among those constructed over 30 years ago (Fig. 3).

Approximately 25% of the unused public properties are subject to protection restrictions or are undergoing verification procedures. Among these, 82.4% are subject to landscape constraints. The amount of assets declared to be of cultural interest and subject to protection is smaller. However, this still indicates that there are a significant number of properties with testimonial and historical value, even among those that are disused and unused.

Public real estate assets play a crucial role in the territory due to their widespread distribution and relationship with urban contexts. They are often located in areas of environmental and landscape importance and have implicit social value due to their functions for the community. However, the significant number of unused

public real estate assets is a critical issue in the contexts where they are located. Therefore, they can also serve as a reserve of quality for the development of urban and territorial regeneration processes.

The urban planning system in Italy

The Italian planning system is based on the "pure conformative" model (Nadin and Stead 2008; Rivolin 2008), which adopts prior binding zoning that assigns land use and development rights, subject to conformity checks for the granting of building permits. If development differs from the urban plan, approval of an urban planning variant is required to incorporate the new provisions (Berisha et al. 2021). Urban planning is still based on the approach outlined in the National Urban Planning Law No. 1150 of 1942, although there have been numerous attempts to reform its content due to its inadequacy concerning the demands of contemporary urban realities. It requires Italian municipalities to prepare a General Regulatory Plan (GRP) that outlines the management of the municipal territory. This includes imposing constraints and conditions on the use of public and private land. However, following the constitutional reform of 2001, urban planning became a shared responsibility between the State and the Regions. This effectively changed the role of Law No. 1150, which now serves as a set of guidelines. The regional urban planning laws that have been enacted have contributed to the development of the form and content of the GRP according to different denominations, models, and principles, depending on the needs of their territories. Some regional laws, allowed for the subdivision of the GRP into distinct components. These components are characterised by different periods of validity and are divided into structural components that serve a strategic function, and regulatory and operational components that have legal implications for property conformity. Despite this approach, the traditional form of the GRP remains prevalent across much of the country. As a result, the Italian territory features a diverse range of plans and instruments, differing in their assumptions, approval periods, and levels of implementation (Romano et al. 2018). Consequently, the planning system is organized into four levels: national, regional, provincial, and local. Each level is represented by specific urban planning tools. These include the National Urban Planning Law approved in 1942, regional urban planning laws, coordinated territorial plans at the provincial (or metropolitan for metropolitan areas) scale, and a general regulatory plan for each municipal territory. The GRP is realised through implementation tools (Colavitti et al. 2013; Calderice and Cozzolino 2019). It is at this last level that the prerogative of regulating land uses and transformations is recognised, guaranteeing the balance between public and

⁴ MEF, *cit.*, p. 13.

⁵ MEF, *cit.*, p. 16.

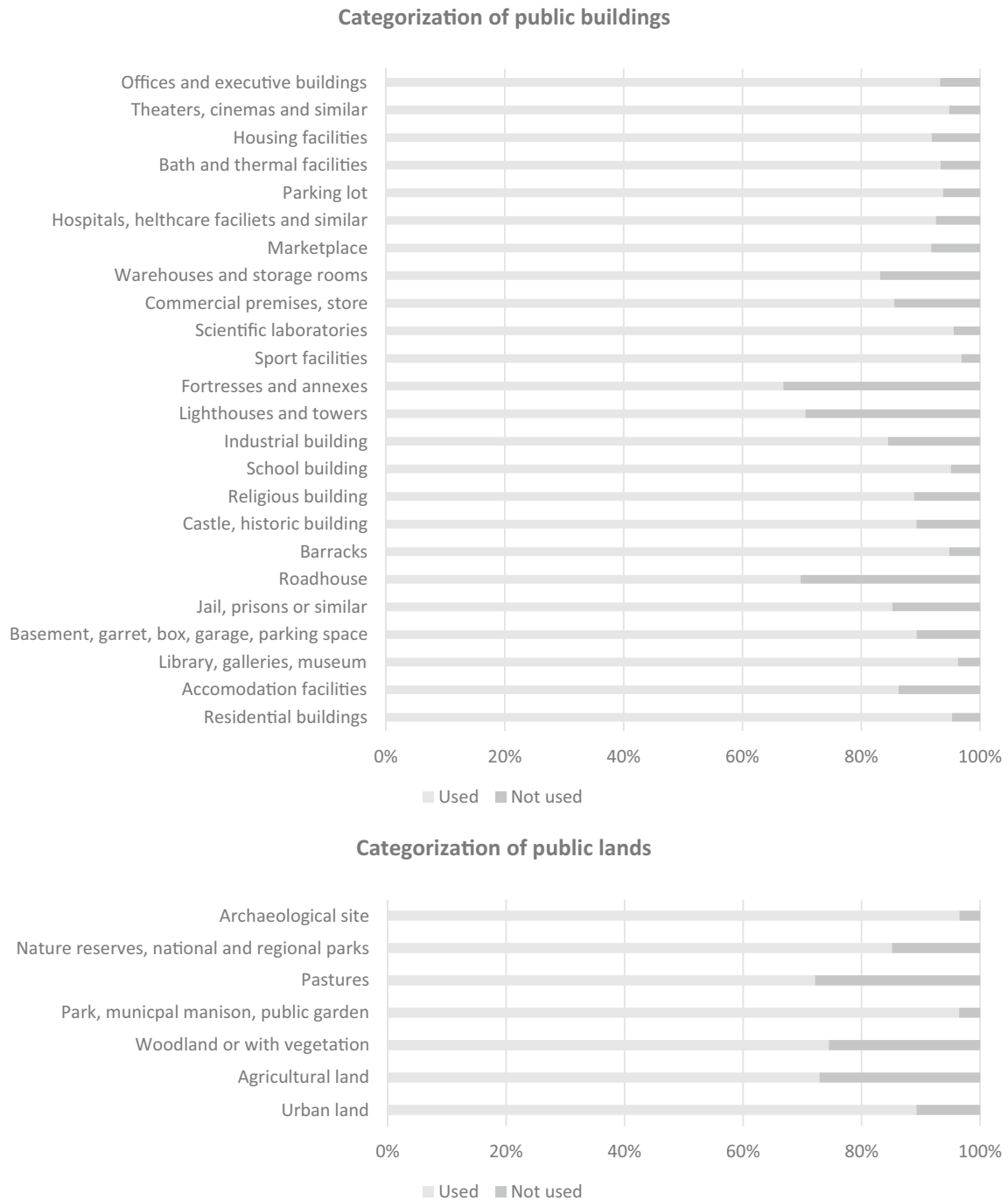


Fig. 2 Categories of public real estate assets. Source: author's elaboration based on MEF, 2021

private interests, while respecting the provisions of the superordinate urban planning.

Public real estate policies in Italy between alienation and valorisation

The management of public real estate has been at the centre of political and administrative debate in Italy for several decades (Carrer 1988; Angelico and Bellicini 1995). Since its foundation, the Italian State has enacted

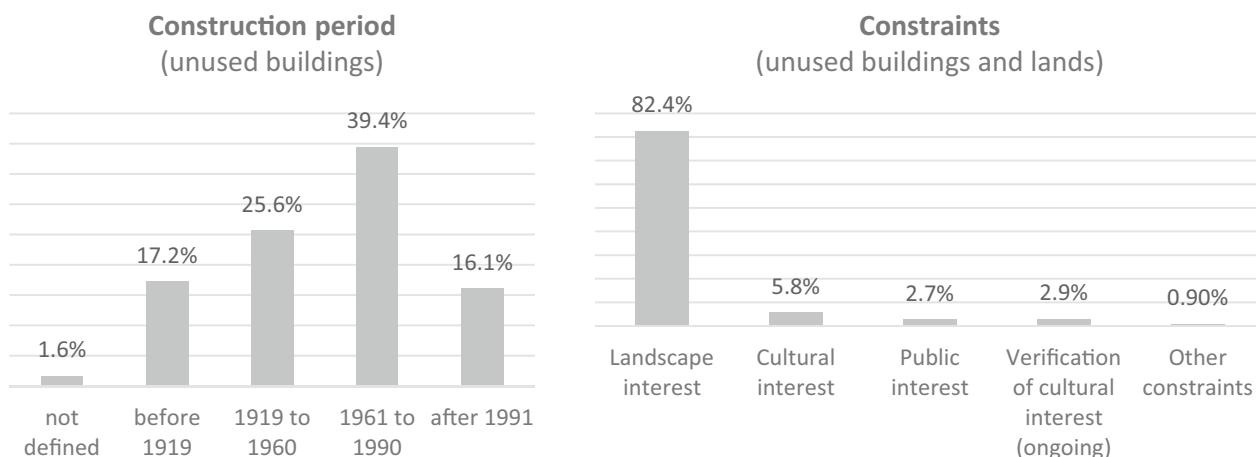


Fig. 3 Public real estate assets by construction period (buildings) and existing constraints (buildings and lands). Source: author’s elaboration on MEF, 2021

laws for the alienation of its public real estate assets, but these operations have been considered as a routine activity without any economic strategy (Cassese 1995; Parlato and Vaciago 2002).

However, since the 1990s, to comply with the obligations imposed by EU regulations, a political-legislative orientation has prevailed that has contributed decisively to confirming the privatisation of public assets to reduce the public deficit (Ponzini 2008). The regulatory framework has primarily focused on selling surplus public real estate using financial instruments. It has also expanded to using real estate as a resource for local development through the introduction of ‘valorisation’ tools and the option to sell assets for lease or concession, with the aim of redeveloping or converting them for economic activities or public services for citizens, enabling the development of public–private partnerships. Additionally, the approval of state property federalism has simplified the procedures for the transfer of ownership of state property to local authorities. These authorities have assumed a new role in the valorisation processes, recognizing their competences in urban and territorial planning decision-making (Carbonara and Stefano 2021). This process has led to a patchwork of overlapping legislation introduced over time. The main instruments introduced in this regard are the Alienations and Valorisations Plan, the Unitary Valorisation Program and its subsequent evolution, the Unitary Territorial Valorisation Program.

The Alienations and Valorisations Plan, introduced by Law 133/2008, is a programming tool that allows local authorities to carry out an inventory of public property that is not required for institutional purposes, with a view to its disposal and corresponding alienation. The inclusion in the plan of the properties establishes their

classification as “disposable assets”, expressly providing for their urban destination, whose approval and consequent variation to the municipal urban planning instrument, however, remains subordinate to the higher regional legislation. The provision aims to quickly transfer assets to the real estate market to generate revenue for the public budget.

The Unitary Territorial Valorisation Program, introduced with Law 296/2006 and updated with Law 201/2011, is a tool that directs valorisation processes towards urban and territorial regeneration purposes. The primary aim is to valorise several assets in the same territorial context in a single process, contextualising the choices within the territorial governance policies and the needs of the reference context of the real estate assets, in line with the provisions of the local urban planning, going beyond the activation of reuse and redevelopment processes aimed exclusively at increasing the economic value of public real estate.

Materials and methods

The research is based on an analytical approach to case studies, reviewing the municipal urban planning tools of main urban centers across the country. It aims to assess how unused or disused public real estate assets are addressed in the local urban planning system.

To delineate the scope of the research, the study concentrated on a representative sample of municipal urban plans from Italy’s principal urban centres. The sample comprised 45 municipalities (Fig. 4), which collectively account for over 22% of the national public real estate, according to official institutional data (MEF 2021). These municipalities, selected from among the 7896

municipalities in Italy, are those with more than 100,000 inhabitants and represent the most important administrative units in the country.⁶ The municipal planning level is considered the most suitable due to its competence in establishing the discipline of uses and transformations of the entire territory. It defines strategic guidelines and urban planning choices, with particular attention to the processes of reuse and urban regeneration, in accordance with higher level planning at regional and national levels.

The analysis considers the approved and published form of the urban planning tool, as its structure and contents can be traced back to it. However, the study also considers potential urban planning variants that may introduce valorisation processes of public real estate assets within the provisions. This is due to the increasing relevance of this topic in recent years. A systematic review was conducted on the documents of each individual municipal urban plan that was published and available in the institutional channels of the public administrations (Table 1).

Specifically, the following documents were analysed:

- Reports, both general and specialist (description of the state of affairs of the municipal territory, definition of needs and description of the strategies adopted in the urban planning tool);
- Technical implementation standards (urban planning and building parameters and constraints can be used to manage the reuse, redevelopment, or transformation of public real estate assets);
- Maps, images, and tables (identification of public real estate assets, summary tables of the quantities relating to buildings and public areas, graphs, and representations of the characteristics of the assets).

To improve the organization of the in-depth analysis of municipal urban plans and assess local-level planning approaches towards unused or decommissioned public real estate assets, an analysis framework has been developed. The framework is divided into four main attributes, which are listed below:

(i) Knowledge framework

The survey of public real estate assets, their state of use, and the availability of data or documents related to their spatial location in the territory. It also considers their typological and administrative characteristics. If available, a georeferenced database or a territorial information system is consulted.

(ii) Categories of public real estate assets

The focus is on the categories of real estate that may be addressed within the analysed urban planning instruments, from a typological, functional, and ownership perspective. This is due to the heterogeneity of the assets that can be classified under the category of public real estate.

(iii) Valorisation plans and programmes

The activation of procedures that act at the same time or as a variant of the planning tools (Alienations and Valorisations Plan, the Unitary Valorisation Program, and the Unitary Territorial Valorisation Program), to verify how they impact the strategies of the planning tools analysed.

(iv) Strategies and actions

The in-depth analysis of the strategies and actions prepared within the planning tools analysed to valorise, regenerate, reuse, redevelop the public real estate assets and any implementation methods.

The attributes were utilised to analyse each urban plan of the municipalities. The findings were then presented, discussed, and summarized in tables. It was decided not to provide a detailed evaluation of each individual urban planning tool. Instead, a comprehensive summary of the evidence is presented to provide a general overview of the role of municipal-level planning tools, based on the sample of urban planning tools analysed, according to the aims of this study.

Results

The analysis of urban planning instruments at the municipal scale led to a wide range of results, given the different characteristics of the current urban plans and the date of their approval. Below is an evaluation of the obtained findings, categorized by each attribute of the analysis framework.

(i) Knowledge framework

The analysis revealed that 14 out of 45 urban plans do not include a survey of publicly owned properties in the corresponding municipal area. However, in urban planning instruments where this characteristic has been identified, the development of the knowledge framework of public real estate assets is processed in different ways and to different depths. Many urban plans only mention public real estate assets that may be unused, decommissioned, or about to be disposed of in discursive form within documents, reports, and technical regulations, in which are described strategies and objectives that involve the affected areas or buildings in possible reuse, redevelopment, or regeneration process. They do not provide extensive or specific surveys

⁶ Source: National Statistical Institute (*Istituto Nazionale di Statistica*—ISTAT) 2024.

Table 1 The framework of the municipal urban plans¹ and the public real estate in the municipal area

Municipality	Municipal urban plan	Year of approval	Public real estate on the municipal territory ²
Pescara	<i>Piano Regolatore Generale</i>	2007	514
Reggio-Calabria	<i>Piano Regolatore Generale</i>	1985	6.527
Napoli	<i>Piano Regolatore Generale</i>	2005	78.175
Salerno	<i>Piano Urbanistico Comunale</i>	2006 (updated in 2022)	1.198
Bologna	<i>Piano Urbanistico Generale</i>	2021	29.011
Ferrara	<i>Piano Strutturale Comunale</i>	2009	10.675
	<i>Regolamento Urbanistico Edilizio</i>	2013	
	<i>Piano Operativo Comunale</i>	2022	
Forlì	<i>Piano Strutturale Comunale</i>	2015	5.330
	<i>Piano Operativo Comunale</i>	2015	
	<i>Regolamento Urbanistico Edilizio</i>	2017	
Modena	<i>Piano Urbanistico Generale</i>	2023	7.743
Parma	<i>Piano Strutturale Comunale</i>	2019	16.834
	<i>Piano Operativo Comunale</i>	2009 (updated in 2019)	
	<i>Regolamento Urbanistico Edilizio</i>	2010 (updated in 2021)	
Piacenza	<i>Piano Strutturale Comunale</i>	2016	5.894
	<i>Regolamento Urbanistico Edilizio</i>	2016	
Ravenna	<i>Piano Strutturale Comunale</i>	2007	11.527
	<i>Regolamento Urbanistico Edilizio</i>	2009	
	<i>Piano Operativo Comunale</i>	2018	
Reggio Emilia	<i>Piano Urbanistico Generale</i>	2023	7.389
Rimini	<i>Piano Strutturale Comunale</i>	2016	8.627
	<i>Regolamento Urbanistico Edilizio</i>	2016	
Trieste	<i>Piano Regolatore Generale</i>	2015	9.797
Udine	<i>Piano Regolatore Generale</i>	2012	1.766
Latina	<i>Piano Regolatore Generale</i>	1972	8.984
Roma	<i>Piano Regolatore Generale</i>	2008 (updated in 2016)	54.523
Genova	<i>Piano Urbanistico Comunale</i>	2015	14.113
Bergamo	<i>Piano di Governo del Territorio</i>	2010 (updated in 2017)	5.841
Brescia	<i>Piano di Governo del Territorio</i>	2016	7.384
Milano	<i>Piano di Governo del Territorio</i>	2019	68.870
Monza	<i>Piano di Governo del Territorio</i>	2017	4.000
Ancona	<i>Piano Regolatore Generale</i>	1994	10.653
Novara	<i>Piano Regolatore Generale</i>	2008	6.428
Torino	<i>Piano Regolatore Generale</i>	1995	31.596
Bari	<i>Piano Regolatore Generale</i>	1976 (updated in 2014)	13.717
Foggia	<i>Piano Regolatore Generale</i>	2009	8.237
Taranto	<i>Piano Regolatore Generale</i>	1978	5.713
Cagliari	<i>Piano Urbanistico Comunale</i>	2004	9.462
Sassari	<i>Piano Urbanistico Comunale</i>	2014	3.505
Catania	<i>Piano Regolatore Generale</i>	1969	9.831
Messina	<i>Piano Regolatore Generale</i>	2002	9.044
Palermo	<i>Piano Regolatore Generale</i>	2004	10.439
Siracusa	<i>Piano Regolatore Generale</i>	2007	2.595
Firenze	<i>Piano Strutturale Comunale</i>	2010 (updated in 2015)	17.954
	<i>Regolamento Urbanistico</i>	2015	
Livorno	<i>Regolamento Urbanistico</i>	1999	17.707
	<i>Piano Strutturale Piano Operativo</i>	2019	
		2023	
Prato	<i>Regolamento Urbanistico</i>	2001	5.179
	<i>Piano Strutturale Comunale</i>	2013	

Table 1 (continued)

Municipality	Municipal urban plan	Year of approval	Public real estate on the municipal territory ²
Trento	<i>Piano Regolatore Generale</i>	1991	5.702
Bolzano	<i>Piano Urbanistico Comunale</i>	1995 (updated in 2019)	1.596
Perugia	<i>Piano Regolatore Generale</i>	2002	1.572
Terni	<i>Piano Regolatore Generale</i>	2008	4.420
Padova	<i>Piano di Assetto del Territorio Piano degli Interventi</i>	2014	9.012
		2023	
Venezia	<i>Piano di Assetto del Territorio Piano degli Interventi</i>	2014	11.319
		2014	
Verona	<i>Piano di Assetto del Territorio Piano degli Interventi</i>	2008	10.831
		2011	
Vicenza	<i>Piano di Assetto del Territorio Piano degli Interventi</i>	2010	3.735
		2013 (updated in 2021)	

¹ Due to the different definitions in the municipal urban plans of the analyzed municipalities, the original Italian language naming was chosen to avoid misunderstandings resulting from translations

² Source: MEF 2021

of these assets. It has been found that many plans only list or catalog public real estate in the municipal area without providing any further analysis or information, except for the public ownership administration. In most cases, the circumstance is determined by incorporating interinstitutional agreements into the urban planning instrument. These agreements prepare for the activation of procedures for valorisation, rationalisation, and/or disposal. There are some virtuous examples where this condition leads to the identification of properties on a map, while others combine it with specific filing of each asset and a description of its current state of use. In some cases, the description includes the constraints and protections applied on the asset, as well as its dimensional characteristics, urban planning, and building requirements. This also includes permitted uses and functions for asset disposals, as well as for reuse and redevelopment processes. In many municipal contexts, unused or decommissioned areas and buildings, including those in public ownership, are often identified as part of more general analyses. This results in the identification of extended areas with a greater concentration of assets that can be framed as homogeneous.

For each identified area, there is usually a specific dossier that includes the characteristics of the existing urban fabric, such as constraints, zoning, objectives for redevelopment, design requirements, quantitative urban planning and building parameters, permitted uses, interventions planned, and implementation tools. This approach, with different degrees of depth, can be found in many urban planning instruments.

In certain urban plans, a census of public real estate assets is considered a necessary condition for activating

strategies to redevelop decommissioned or unused assets in the interest of the entire municipal territory. To achieve these objectives, the system of public real estate assets is represented by specific drawings and documents. These are typically organized based on the type of owning entity or specific function.

Out of the 45 municipal urban plans analyzed, only 3 provide support for a georeferenced database or a spatial information system. These systems are dynamic and constantly updatable tools that allow for effective management of information on publicly owned assets on a spatial basis, unlike traditional cartographic drawings (Fig. 5).

(ii) Categories of public real estate assets

Public real estate assets recognised within urban plans due to decommission, disuse or unuse exhibit significant heterogeneity because of the diverse range of typological and functional characteristics of the areas and buildings. To effectively present the evidence found in the analysis of this aspect, it was appropriate to organise the reading into functional macro-categories. This summarises the complexity and allows for an in-depth analysis without being excessively dispersive.

Out of all the urban planning instruments analysed, 25 identify public real estate asset within their territory due to the cessation of the functions originally performed. Although the public real estate identified is typologically varied, it is possible to identify certain categories of assets that recur most frequently in the plans analysed. The most common category found in 15 of the examined plans is that of assets belonging to the military estate, which, in its various configurations, is a significant and widespread component of the relevant urban areas. The



Fig. 4 The framework of the target municipalities

real estate cluster is diverse in terms of functions performed, all within defence-related activities, as well as the type and size of buildings and areas. Some sites comprise multiple buildings, including housing, warehouses, and offices, while others consist of individual buildings and areas. The same principle applies to large disused infrastructures, particularly railway infrastructures. These are characterized by their considerable territorial extension and an extensive network of stations, equipment, and areas that are identified as unitary compendiums within 13 urban plans. Additionally, public areas intended for productive and commercial activities, including markets, fairs, and artisan structures, are now disused from their

original functions and identified as urban districts to be redeveloped in 10 urban plans, as well as prisons, which are included in 5 urban plans. Public housing is a category of assets that is recognised as a whole and is present in 6 urban plans. This class of assets is often identified as an entire urban area rather than as individual assets. This is because such residential complexes consist of several building units and their corresponding areas, which develop mutually, preventing their specific identification. 6 of the analysed plans include additional categories, such as health care facilities, which comprise hospitals, nursing homes, and clinics. The most common type of abandoned healthcare facility is disused asylum

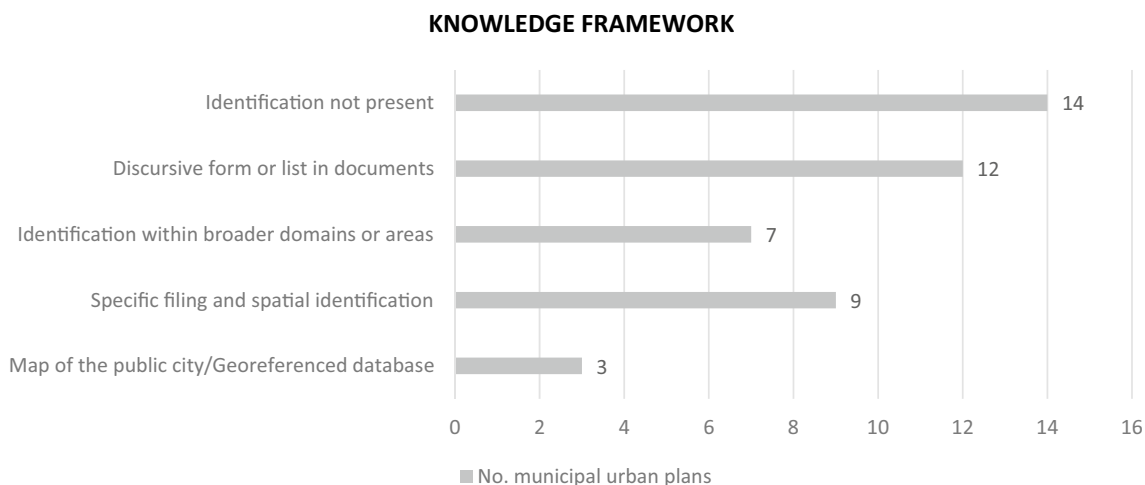


Fig. 5 Summary of the results of the attribute "Knowledge framework"

facilities, which have been abolished nationwide and are often a legacy of the nineteenth century. Other categories of recurring assets include school buildings, which appear in 5 urban plans, administrative buildings owned by public authorities, which occur in only 2 urban plans, and monumental and religious buildings that are no longer used for their original functions, such as castles, convents, and monasteries, and are therefore returned to the public realm, which occur in 4 urban plans. Finally, in the urban plans analysed, the category of public land, mainly characterised as unbuilt space, is rarely found. Only 4 urban planning instruments identify this category of assets, acknowledging their state of disuse, which is almost always due to the lack of implementation of areas designated for public facilities and services (Fig. 6).

(iii) Valorisation plans and programmes

The analysis revealed that out of all the urban planning instruments analysed, 19 had a specific urban planning variant due to the approval of measures aimed at managing the alienation and/or valorisation of public real estate in the municipal area. Out of all the plans where this circumstance was found, 15 have a variant resulting from the approval of the Alienations and Valorisations Plan. These plans aim to increase the profitability of public real estate assets that are not instrumental to the exercise of institutional functions. The purpose is to ensure new sources of financing through procedures of sale, lease, or concession to private parties, for the purpose of their redevelopment, also with the introduction of new uses aimed at the performance of economic activities or public services. The analysis focused solely on the approval of a specific variant of the urban planning instrument in

force, resulting from the approval of the Alienations and Valorisations Plan. Municipal administrations systematically prepare for such procedures every three years in compliance with national legislation on public real estate. However, listing public real estate in the plan and defining its urban destination does not immediately constitute a variation of the municipal urban planning instrument. This can only be achieved through appropriate verification of conformity with the superior urban planning instruments.

There are only 4 urban planning instruments that have implemented a Unitary Territorial Valorisation Program, which aims to bring together multiple assets in the same territorial context for a single process. In contrast to Alienations and Valorisations Plans, it is worth noting that Unitary Territorial Valorisation Program have different outcomes depending on their approval and the municipal planning instruments.

In some cases, the approval of programmes served as a prerequisite for a dedicated instrument aimed at integrating the provisions of the planning instrument in force. In other cases, the preparation of programmes occurred simultaneously with the drafting of the municipal planning instrument, ensuring the sharing and consistency of the transformation scenarios envisaged. However, there have been cases in which the approval of the programmes and their provisions has been integrated with the municipal urban plan through the approval of a specific variant (Fig. 7).

(iv) Strategies and actions

The analysis of strategies and actions aimed at regenerating, redeveloping, and valorising unused or decommissioned public real estate has shown that there are

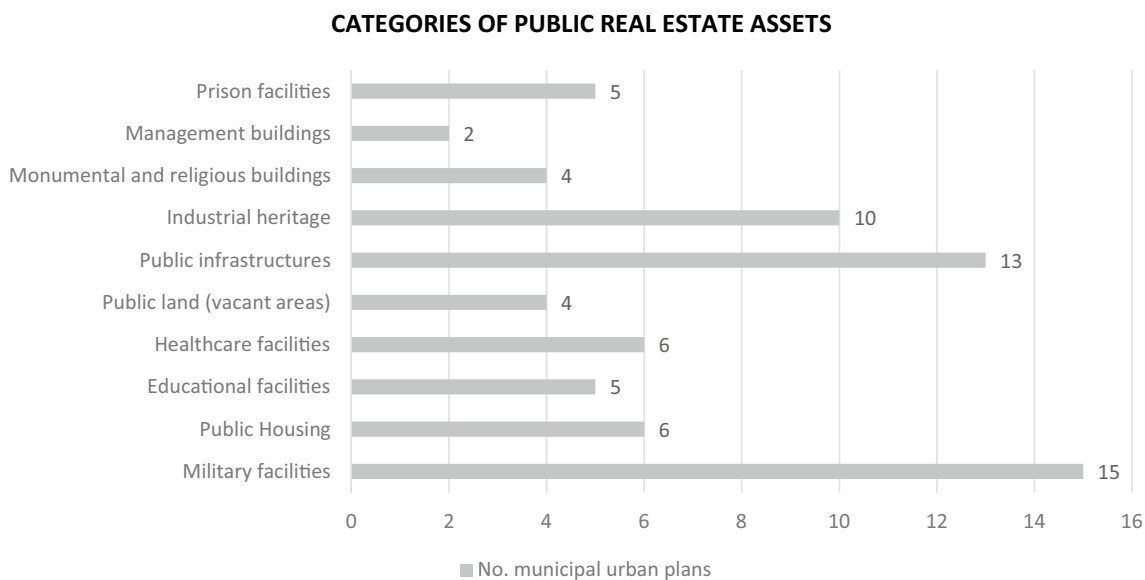


Fig. 6 Summary of the results of the attribute "Categories of public real estate assets"

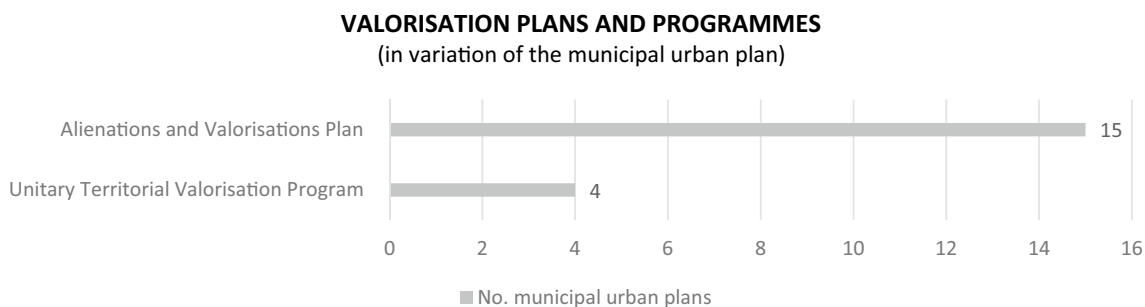


Fig. 7 Summary of the results of the attribute "Valorisation plans and programmes"

numerous and diverse ways in which this resource can be considered an opportunity. However, certain patterns linking the identified contents can be summarised in the following main directions.

In 14 urban plans, it has been observed that disused or unused public areas and buildings are being utilized to strengthen the welfare system. Two main strategies have been identified to address this issue. The first strategy involves increasing the supply of public housing, with a focus on specific groups such as students and families. The second strategy aims to achieve a balanced distribution of public facilities and services for both residents and city users by improving urban standards. This is particularly important in historical areas where the reuse of existing buildings and the availability of unused areas of public property is an added value due to the density of uses. This option is applied in some cases to develop

cultural, recreational, and social activities for the community and to improve social and health services.

Usually, the alienation and/or valorisation of public real estate assets may be considered due to the approval of specific plans or programmes outside of the urban planning tools. However, there are also situations where this possibility is explicitly included in the strategies and guidelines of the municipal urban plan. In some cases, this may be necessary to provide the public authority with the required financial resources to construct public facilities. This can be achieved through the sale or transfer of publicly owned assets, some of which may be part of the urban facilities that have not been implemented, or by optimizing their use to reduce the costs associated with their management. In some cases, this stock is viewed as a resource to negotiate the involvement of private stakeholders in urban development and valorisation processes through compensation and/or urban equalisation.

The analysis revealed that publicly owned, disused, decommissioned or unused assets are often identified as suitable for the development of bottom-up initiatives and practices. This is achieved through the involvement of local citizens and associations in the development of valorisation processes aimed at satisfying the social, cultural, health, and religious needs of the settled communities. Such assets may also be used for places dedicated to the creative industry and youth aggregation. Several plans include listening activities and participatory processes for developing initiatives or managing possible reuse of assets and defining permitted functions. Among the analysed urban planning tools, it is evident that public real estate is often valorised through the definition of uses and functions capable of facilitating forms of social aggregation, such as the realisation of cultural, museum and library activities. Temporary reuse is a popular method for managing public real estate in redevelopment strategies, especially when the process timeframe is uncertain due to economic difficulties faced by public administrations or a lack of private investment. These forms of public real estate management by local citizens are now widespread within urban planning instruments, demonstrating the institutional learning process of bottom-up practices. Many urban planning instruments target publicly owned, disused or unused assets as an opportunity for ecological and environmental upgrading of areas and buildings through a range of strategies and actions. One recurring theme is the acknowledgement of the ecological importance of this resource in limiting soil consumption and urbanization. This can be achieved by preserving natural surfaces or, if they have already been compromised, by transferring development rights to alternative areas. In some cases, public property areas may be used for the transfer of development rights through equalisation and compensatory modalities if they are deemed more suitable for urban transformations than the originally planned areas. In certain circumstances, agricultural activities may be permitted, or recreational and excursion-type uses may be considered, to safeguard landscape and environmental resources. Finally, some urban planning instruments provide incentives and rewards for the energy retrofitting of publicly owned buildings. This is achieved through the instrument of compensation, particularly targeting buildings in a state of disuse that require efficiency measures (Fig. 8).

Discussions

The analysis reveals that the regeneration of disused or unused public real estate is acknowledged in a significant number of municipal level urban plans. However, in 30% (15) of these plans, none of the components of the analysis framework were recognised, indicating that

this approach, while widespread, is not yet systematically considered.

Most of the analysed plans do not include a survey specifically aimed at identifying public real estate assets within the municipal territory, even if they are disused or unused. This often happens in outdated urban plans that were developed at a time when regenerating, redeveloping, reusing, or valorising disused or unused public property was not considered an opportunity or urgent enough to require a knowledge framework. This issue and its urgency for cities and territories is a relatively recent topic that has gained importance, particularly in the last two decades. However, many recently approved planning instruments have been found to be lacking, even though they are set in a historical context in which certain issues can be considered well established.

The reasons for this are the different characterisations that the territory and its components can assume, and the consequent demands that can arise, which certainly cannot be framed according to a single perspective. On the other hand, where this peculiarity was identified, two main approaches were found. The first approach aims to identify public real estate assets that require interventions to overcome their original function due to decommission, unuse, or potential valorisation. Depending on the case and contextual needs, information is provided on the situation and the necessary prescriptions for implementing the interventions. In contrast, the second approach, although less common, considers knowledge of public properties in the territory as a strategic prerequisite for activating policies and actions that are of interest for the development of the urban area. In some cases, there is also a desire to overcome the static nature of traditional urban planning tools through the provision of spatial information systems that can be constantly updated and integrated. Real estate in need of repurposing is typically owned by the state and its institutions. This is often the case with military assets, as their original functions are no longer needed due to the downsizing of defence needs. This real estate stock is an important resource for the city and the territories involved due to its large territorial extension and the complex set of assets attributed to it. It provides an opportunity to reconnect areas, often strategic, that have historically been excluded from the dynamics of urban development due to their original function. The territories analysed show an urgent need for the areas once occupied by large infrastructures, now abandoned, in particular railways, which, as in the case of military sites, are characterised by their considerable size and the diversity of the areas and buildings they contain. These areas are suitable for extensive redevelopment due to their original function, which makes it difficult to reuse the existing built fabric because of critical



Fig. 8 Summary of the results of the attribute “Strategies and actions”

adaptation issues. Real estate belonging to the railway state property has gradually been subject to privatization, becoming part of disposable assets and manageable under private law while retaining its public status. A significant number of urban planning instruments analysed have identified the need for extensive areas dedicated to artisanal and commercial use. These areas are characterised by large, covered surfaces that have been unused for long periods and require reconversion. The complex typological characteristics of these contexts, often the legacy of a distant past, frequently present a critical challenge to be addressed due to the functions they originally served, making their conversion difficult.

The results indicate that assets contributing to urban welfare, such as equipment and spaces of collective interest, which are particularly useful for satisfying social needs (e.g. public housing, school facilities, and social-health facilities), are less frequently in a state of disuse or decommissioning. The need for public facilities to ensure an adequate level of livability in different contexts and the obligation to guarantee a minimum amount per capita are the reasons for this. As a result, these facilities may be less likely to remain unused compared to other public assets. A separate discussion should be made, however, for publicly owned land. In most cases, these areas are designated for urban development in current or previous planning but have not been implemented due to lack of resources or recognition of their limited relevance in the organization of the public city. Only a few of the urban planning instruments examined acknowledge the fact that they remain unused. Many of the urban planning instruments analysed were concerned with procedures that intervene as a variant of the existing urban plan of the municipality, which in most cases is exclusively

functional to maximise profits from the valorisation and/or alienation of surplus assets. The measures do not align with the development strategies of the reference context envisaged by the plan. They are limited to changing the urban destination of the real estate to better meet market demand and maximize revenue from its disposal. Only four cases have been identified which involve the implementation of tools aimed at local development through the unitary valorisation of multiple assets within the same area, in accordance with economic and territorial planning guidelines. This fact indicates that publicly owned areas and buildings are often used as a financial reserve rather than being utilized as a resource to satisfy the needs of the local contexts. Implementing the latter option involves more difficulties due to critical issues arising from the necessary coordination for the valorisation of assets belonging to different institutional authorities and the resulting timelines. This also makes the participation of private investors more challenging.

The results of the analysis have made it possible to verify that the availability of land and buildings belonging to the public property stock, when they are disused or no longer fulfil their original functions, represents a strategic resource within urban and territorial planning. This is particularly evident in the strengthening of the system of public services and the development of initiatives for shared management or civic use of assets. Publicly owned land is also used to achieve environmental and ecological objectives, rather than being exploited for economic gain. The study has shown that this stock plays a central role, particularly in the most recent instruments, indicating that the recognition of its importance is a process that is still being developed.

In synthesis, the analysis highlighted that public real estate assets can be a crucial resource for generating positive impacts on the territory, benefiting settled communities. Furthermore, it emphasised the importance of urban planning in regulating such processes.

Conclusions

The public real estate in Italy is the result of transformation processes that have occurred over time, resulting in varying outcomes in terms of quality, quantity, and spatial distribution. These outcomes reflect the functions performed by the real estate, which justify its heterogeneity and its significance as a substantial component of the territory.

Due to its complexity and its inevitable relationship with the urban dimension, this stock suffers from a structural lack of public financial resources and its inadequacy in relation to the changing demands of contemporary needs, which often leads to its condition of disposal, disuse, or abandonment.

In Italy, the issue has mainly been approached from an economic and financial perspective, with a lack of consideration of this asset as a resource within a broader urban and territorial development policy. The difficult achievement of the goals has resulted in a gradual change in perspective, with the progressive inclusion of the territorial dimension in alienation procedures and introduced valorization tools. However, the implementation of such measures happens outside of urban and territorial planning. The choices regarding the affected assets are only brought within the realm of planning through the preparation of a specific variant to the urban plans in force.

To ensure convergence of interests, responsibilities, and objectives regarding the use of public real estate assets, especially those that are disused or abandoned, it is essential to establish an in-depth knowledge framework for decision-making and subsequent planning. The various ways in which public real estate assets are considered in planning strategies support the belief that the availability of these assets, once their original function has ceased and if they are no longer considered useful for institutional purposes, can be a crucial resource for triggering urban regeneration processes. The issue is approached with appropriate consideration, especially in recently approved urban planning instruments, indicating that its recognition is still a work in progress.

These processes align with the urban regeneration paradigm, both in terms of their characterisation as verticistic process, with public direction, and the involvement of urban, fiscal, social, cultural and economic intervention measures, as well as the involvement of private stakeholders (Roberts and Sykes 2000; Leary and McCarthy 2013), and

in terms of their characterisation as process that emerge by bottom-up valorisation initiatives and the involvement of the settled communities (Moulaert et al. 2013).

Based on these assumptions, the contribution highlights the importance of an integrated approach that recognises the urban plan at the municipal level as a unitary and coherent framework for defining strategic choices. This approach should create an impartial context that limits conflicts between the numerous stakeholders involved, both public and private, and ensures the implementation of processes that are consistent with the satisfaction of local requests. This will overcome the episodic nature that has characterised implementation in recent years and be part of a general strategy of territorial governance.

The large quantity and widespread distribution of public real estate assets throughout the national territory can represent an added value, and their use to activate urban regeneration processes can contribute to the competitiveness of cities, not only in economic terms, but also as an opportunity to influence more general policies of territorial rebalancing.

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Competing interests

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