

Article

Legislative Foundations: Exploring Land Take Laws and Urban Regeneration Policies in Italy and Europe

Annamaria Felli  and Francesco Zullo * 

Department of Civil, Construction-Architectural and Environmental Engineering, University of L'Aquila, Piazzale E. Pontieri, 1, Monteluco di Roio, 67100 L'Aquila, Italy; annamaria.felli@graduate.univaq.it

* Correspondence: francesco.zullo@univaq.it

Abstract: Soil is now a central issue on the European as well as the national political agenda, as it represents a fundamental ecosystem for human survival on the planet. Today, more than ever, its protection and proper use in various contexts (agricultural, natural, urban) require stringent policies that can be implemented immediately. The difficult reversibility of urban transformations is the main threat to the ecosystem integrity of soil. Starting from this statement, the main objective of the proposed work is to analyze how the main European countries (Italy, France, Germany, and Spain) are addressing the issue of the goal of zero net land take by 2050 by examining the current laws and strategies. The results highlight how the regulatory aspect plays a key role in managing the phenomenon and how the absence of a national framework law can generate strong distortions and different interpretations of the soil ecosystem. The analysis of the Nature Restoration Law, adopted by the European Commission in July 2023, enables us to assess whether the regulations and measures adopted by the major European countries align with the European Union's trends. Through a comparative perspective, the study aims to contribute to a comprehensive understanding of sustainable development practices and provide valuable insights for policymakers, urban planners, and academics.

Keywords: urban regeneration; land take; legislative framework; urban strategies; land planning



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1. Introduction

The increasing deterioration of soil quality in Europe, mainly due to urbanization and soil sealing, has prompted several European countries to adopt policies to curb land take and promote urban regeneration. The core aim of this study is to investigate how the main European countries, including Italy, France, Germany, and Spain, are tackling the imperative of achieving zero net land take by 2050. This will involve a thorough examination of the existing laws and strategies. The focus is on the dynamic interplay between Italian national regulations and the influential directives of the European Union. In land use and urban regeneration, Italy is caught between a nuanced legal framework shaped by national regulations and overarching European policies. The panorama of Italian legislation reveals a careful design aimed at achieving multiple objectives: curbing excessive land take, promoting sustainable urban growth, and preserving a rich treasure of historical and environmental values. Although there is no comprehensive national framework law dealing specifically with land use or urban regeneration, the Italian regions meet these challenges through a mosaic of land-use government laws. It is noteworthy that these regional laws are often contradictory in their treatment of basic concepts such as “land use” and “urban regeneration”, although they are united in their common desire to limit urban sprawl and sprinkling. Urban regeneration, as a complex system of interventions, plays a central role in renewing urban spaces without exacerbating land degradation and land uptake [1].

The article goes beyond Italy's borders and examines how other European countries (Germany, France, and Spain) approach the complicated issues of land use and urban

development. The comparative analysis sheds light on the significant influence that the European Union exerts in shaping common objectives, including the promotion of compact cities and the strategic prioritization of brownfield redevelopment. This article addresses the crucial role of urban regeneration in promoting sustainability and resilience, drawing on evidence from European practice. The comparative analysis of existing legislation in some European countries and an examination of regional differences in Italy aims to provide a comprehensive overview of the regulatory landscape. In addition, the analysis of the “Nature Restoration Law” (NRL) recently adopted by the European Commission provides insights into its strengths and weaknesses. This analysis allows for an assessment of the degree to which European states have proactively integrated the stipulations of the new law. It also helps determine whether the measures outlined in national legislation diverge significantly from the directives outlined in the NRL.

In the subsequent analysis, another topic addressed in the study will be explored, focusing on the definitions employed by the various countries under examination regarding land take. The presence of numerous divergent definitions frequently gives rise to ambiguity, posing a critical challenge in the comprehension and management of the phenomenon on an international scale. Delving into this aspect aims to shed light on the existing conceptual differences and the potential implications arising from the heterogeneity in defining the concept of land take among the considered countries. In the present study, the research goals and purposes have been identified and articulated, aiming to provide an in-depth understanding of soil consumption regulations. The research distinguishes itself through its innovative approach within the context of assessing existing regulations, aiming not only to identify legal provisions but also to highlight emerging challenges and opportunities for enhancing sustainable land and environmental management. Through comparative analysis of Italian regional regulations and national laws of European countries, this study generates new and significant knowledge, offering a relevant contribution to the ongoing discourse on soil and biodiversity protection.

2. Methods and Materials

This article analyzes land use regulations, focusing on different types of laws and regulations enacted at both national and regional levels. A more detailed analysis is carried out for Italy, as references to land take can be found not only in specific laws on the subject but also in regulations on landscape and urban planning. As there is no national framework law, the provisions on land take are often spread across the various Italian regions. This heterogeneity in the placement of regulations can influence the coherence and effectiveness of measures to curb land take. To carry out the analysis, relevant legal and regulatory documents were consulted, as well as all legal interpretations and jurisprudential decisions that could have an impact on the application of land use regulations. The main objective was to identify the main provisions, the differences between the various regulations, and any critical issues or gaps that could jeopardize land and environmental protection. Through a careful review of the legal literature and regulatory sources, we provide a comprehensive overview of the existing regulations, focusing on the different approaches to land use regulation and their implications for practice. This analysis was conducted employing keywords such as “land consumption”, “land take”, and “urban regeneration” through various resources like official government websites of the respective ministries, legislative databases such as the Gazzetta Ufficiale della Repubblica Italiana or the European Parliament website, legal databases like Normattiva and Eur-Lex, academic research through platforms like Google Scholar or ResearchGate, and European databases like the official website of the European Union. Once the information on the various laws implemented in this area was collected, it was essential to carry out a SWOT analysis, which made it possible to assess the strengths and weaknesses of each law. In essence, this study provides a detailed framework for land use regulation, highlighting both the challenges and opportunities for improving sustainable land and environmental management.

3. Legal Framework in Italy: Addressing Land Take and Urban Regeneration

Italy has no national law on land take reduction or urban regeneration. The lack of a unified approach has led to regional laws that vary considerably in content and focus. Urban regeneration is still sometimes misunderstood as the only answer to limiting land take and associated only with the redevelopment of the built heritage. The aim of most current laws in Italy, which differ from region to region in terms of land management, does not place planning at the center and understands urban regeneration merely as the redevelopment of parts of urbanized land, through physical-spatial and urban-building planning redevelopment, sometimes promoted by volumetric or economic bonuses [2]. To be sustainable, urban regeneration must start with what already exists without leading to new land take. The parts of the land that are not yet artificial are finite and non-renewable resources that need to be valorized through initiatives to promote regeneration. Many regional laws refer to some “definitions” that do not consider the land take that occurs within the boundaries of urbanized areas or on land designated for urbanization. The intensive regulatory activity has stabilized overall, and regional land policies have focused on the objective of gradually reducing the taking of uncultivated land for settlement and infrastructure uses, in line with the European objective of reducing this consumption to zero by 2050. Still, for the moment, it does not seem to have succeeded in stopping this rush to land [3].

The different treatment of the concepts of “land take” and “urban regeneration” in the individual regions makes it clear that a coherent national strategy is required.

3.1. Land Take

The definition of “land take” identifies the phenomenon of urban conversion of the land area, with the removal of the surface layers of the soil and their replacement with artificial covers [4]. It is a phenomenon linked to settlement and infrastructural dynamics and is mainly due to the construction of new buildings and settlements, the expansion of cities, the densification or conversion of land within an urban area, and the infrastructural development of the territory [3]. Land take continues to transform the national territory at high and increasing speeds. In 2023, new artificial covers covered an additional 76.8 square kilometers or more than 21 hectares per day, on average. This increase confirms a strong acceleration compared to the data collected in the recent past, reaching the highest values of the last 11 years, during which they had never exceeded 20 hectares per day (Figure 1). In 2023, Italy lost more than 2.4 square meters of soil every second: a growth in artificial surfaces only minimally offset by the restoration of natural areas, equal to 6 square kilometers, due to the transition from consumed to unconsumed soil (generally thanks to the recovery of construction site areas or surfaces that had already been classified as reversible land take). This is still not enough to achieve the goal of zero net land use. In addition, however, it must be considered that another 7.5 square kilometers have transitioned, in the last year, from reversible consumed land (detected in 2021) to permanent, further sealing the territory. As a result, waterproofing has grown by a total of 22.3 square kilometers [3].

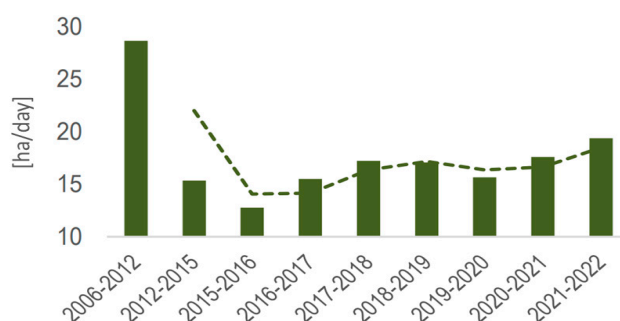


Figure 1. Rate of net daily land take in Italy (2006–2022). The dotted line represents the average [3].

Each region may have dozens of plans covering both the entire regional territory and special protection areas, as well as hundreds of municipal land use plans [5]. Each of these plans has different rules, different territorial scales, and different competent bodies. A strategic point is therefore the mosaic and monitoring of municipal urban planning instruments and their updates, as they are the instruments with the greatest decision-making power for territorial transformations in Italy. The transition to a clear and immediate picture of the potential future settlement of the territory would be linked to a mosaic of the contents of the general regulatory plans updated in real time; however, this is greatly hindered by the current lack of protocols on uniform legends of the municipal instruments. All this makes it impossible to monitor the forecast scenarios of the regional land to the transformation intentions of the municipalities [6]. While we try to simplify any procedure as much as possible, it seems quite clear that an efficient measure to limit land take cannot be thought of as an immediate, let alone elementary, measure for the Italian instrumental framework, which today is almost completely unequipped in the matter. An efficient procedure would therefore require a preparatory process that would have to revise seemingly immovable paradigms, which include, first and foremost, the excessive guarantor of plans over property and private rights [7]. The goal of zero net land take (i.e., the equal balance between land take and the increase in agricultural, natural, and semi-natural areas due to recovery, demolition, de-waterproofing, and renaturalization interventions) must also be seen as an engine of regeneration and redesign of the urban fabric and as an opportunity for urban and territorial redevelopment; it must be achieved through the simultaneous implementation of all possible actions to align with the objectives at national, European, and global levels [3].

In light of this intricate and articulated system of objectives, policies, and actions implemented at various levels, it is difficult to formulate a scientific assessment of the possible scenarios for the transformation of the Italian territory. Many regional laws, although they have the purpose of containing land take, refer to some “definitions” (Table 1) that do not consider land take to be carried out within the perimeters of urbanized areas or on land intended for urbanization, even if they are still free [5]. This type of classification, which diverges from the well-established and official classification at the national and European level, ends up encouraging further artificialization disguised as the use of areas already “occupied”, when instead it produces land take and loss of ecosystem services, frustrating the effort to achieve the fundamental objective of protecting the soil, even in urban areas [3]. By September 2023, 59 laws had already been submitted to the chambers, 38 of which do not define the phenomenon they are intended to curb and the remaining 16 containing different definitions (Figure 2).

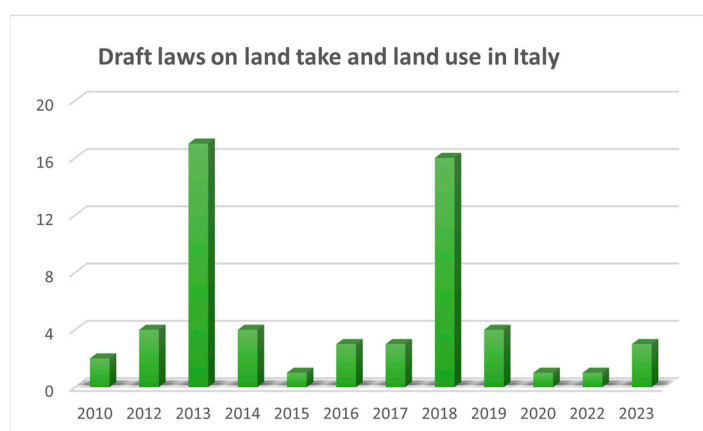


Figure 2. Draft laws on land take and land use in Italy in the last 13 years.

Table 1. Examples of definitions of land take in some Italian regions.

Region	Law	Land Take Definition
Calabria	R.L. ¹ No.19 of 2002	Land take is a change from a non-artificial cover or unconsumed soil to an artificial land cover or consumed soil; transformation through the construction, inside and above ground, of buildings, infrastructures, and services, or caused by actions such as excavation, removal, compaction, waterproofing; modification or loss of agricultural land, whether natural, semi-natural or free, as a result of contamination, pollution or impoverishment.
Emilia Romagna	R.L. No.24 of 2017	Land take is given by the balance between the areas for which the urban implementation planning provides for the settlement transformation outside the perimeter of the urbanized territory and for which the same planning establishes a destination that requires, within the same perimeter, desealing interventions, through the removal of soil sealing.
Lazio	R.L. No.7 of 2017	Land take is a common good and a non-renewable resource that performs functions and produces ecosystem services.
Lombardy	R.L. No.18 of 2019	Land take is the transformation, for the first time, of an agricultural area by an instrument of territorial government, not connected with agro-forestry-pastoral activity, excluding the creation of territorial urban parks and including the construction of supra-municipal infrastructures; land take is calculated as the percentage ratio between the surfaces of the new transformation areas that lead to a reduction in the agricultural areas of the current urban planning instrument and the urbanized and urbanizable area.

¹ Regional law.

3.2. Urban Regeneration

The lack of a unified approach has led to regional laws that vary considerably in content and focus. Urban regeneration is sometimes misunderstood as the only answer to limiting land take and is associated only with the redevelopment of the built heritage and energy requalification [2]. The aim of most current laws in Italy, which differ from region to region in terms of land use management, does not place planning at the center and understands urban regeneration merely as the redevelopment of parts of urbanized land, through physical-spatial and urban-building planning redevelopment, sometimes promoted by volumetric or economic bonuses [1]. Urban regeneration processes must involve all public and private actors interested in them. The latter should have the necessary knowledge: comprehension of the territory and techniques useful for outlining the characteristics of the urban settlements, the space, the entities, and the potential for regeneration of their context, as well as the economic resources available [7]. The body of texts on urban regeneration encompasses a comprehensive framework of provisions, ranging from the adoption of a set of definitions to the anticipation of specific tools, including financial and monitoring instruments. This also pertains to the phenomenon of the dispersion of built-up areas and addresses implementation and coordination aspects. Urban and territorial regeneration is frequently advocated as a valuable tool to prevent land take and is undoubtedly a priority for rethinking, towards an increasingly necessary and urgent ecological transition, the structure of a territory that has become, over time, increasingly fragile and ill-equipped to face the major challenges posed by climate change and widespread environmental and landscape degradation. Annual data from the monitoring of the territory in Italy highlight how urban soils, those targeted for regeneration, have experienced the most significant increase in soil take in recent years. This has led to the disappearance of valuable permeable areas, worsening the frequency and intensity of floods and heatwaves and causing the loss of green areas accessible to citizens, biodiversity, and ecosystem services. The relevance of urban regeneration as a tool arises, among other things, from the debate on how to protect the soil from further consumption, ensuring that areas not yet artificial, precious assets for the community within and outside urban fabric, maintain or improve their natural functions. Sustainable urban regeneration, in essence, involves regeneration without soil consumption [3]. Despite the absence of a national law, in many regions, laws have been

approved to support urban regeneration (Figure 3), introducing heterogeneous measures, mainly of a quantitative nature [1].

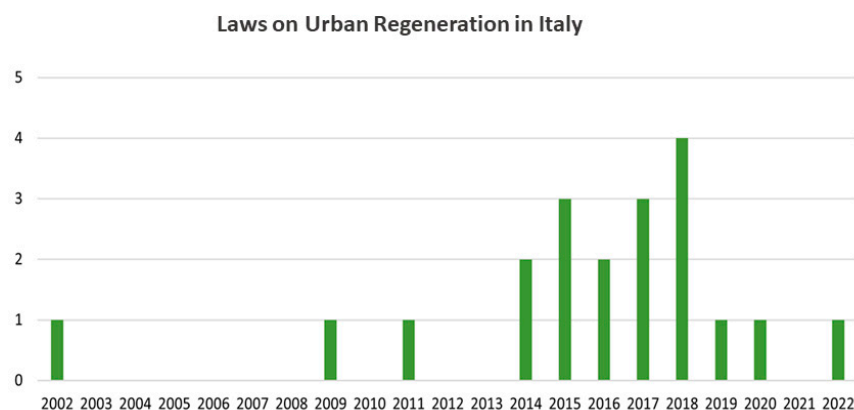


Figure 3. Laws on urban regeneration in Italy in the last 22 years.

The rationale behind the policy choices of regional administrators has been to successfully reconcile the stated objective of achieving a net zero soil consumption by 2050 with the need to safeguard the economic and social fabric of their territories. Regions have directed their legislative and political actions towards ensuring greater protection of regional territory, promoting urban transformation in terms of quality, reducing soil consumption, and defining integrated strategies for urban regeneration. This regeneration is understood as a systematic complex of urban and building transformations concerning areas and building complexes characterized by urban, building, environmental, or socio-economic degradation, without causing soil consumption. These transformations are to be implemented using methodologies and techniques of environmental sustainability, reversible soil renaturalization, recovery of lost ecosystem services, de-impermeabilization, reclamation, elevation of ecological and environmental potential, and urban biodiversity, prioritizing reuse. Within the urbanized territory, the reuse and regeneration of existing buildings are often facilitated, with exceptions to regulatory standards (distances, heights, densities), procedural simplifications, and other tools (construction and subsequent demolition, incongruous works, registered property registry, temporary uses). Some regions (Sicily, Friuli-Venezia Giulia) have issued specific provisions for the recovery of abandoned existing buildings located in rural areas and historical centers, aiming to ensure sustainable development in response to induced territorial transformations, avoiding new soil consumption through the redevelopment and reorganization of existing buildings. The commitment is therefore focused on pursuing comprehensive urban redevelopment and regeneration, encompassing social, cultural, economic, urban planning, and building aspects, to promote or revitalize areas experiencing social and economic distress or degradation, fostering forms of co-housing for shared spaces and activities. In this concept, the regions of Calabria, Puglia, and Abruzzo view regeneration as a tool for not only urban and architectural quality but also for territorial, landscape, and environmental enhancement, energy and water efficiency, seismic safety, technological infrastructure, and security for areas prone to territorial risks. In the overall framework of regulatory production, some strengths and potential unresolved issues emerge [3]. The different treatment of the concepts of “land take” and “urban regeneration” in the individual regions makes it clear that a coherent national strategy is required.

4. European Approaches to Land Take and Urban Regeneration Policies

Land take (sometimes called “land consumption” or “land artificialization”), refers, according to the European Directorate General for the Environment, to “the increase of artificial surfaces (housing areas; green urban areas; industrial, commercial and transport units; road and rail networks) over time” [8]. This definition could be questioned. Indeed,

speaking of the increase of artificial surfaces implies that the previous status of these surfaces was, by contrast, “natural” [9]. Europe has a diverse mosaic of landscapes where the impact of various land use changes over the years is visible. EU land is being intensively used, with around 80% being devoted to settlements, infrastructures, agriculture, and forestry. Land use patterns and changes are influenced by a broad range of interrelated factors, such as population dynamics, global markets, economic trends, and topographic and climatic specifics [10]. Figure 4 shows the main global and European targets and indicators related to land use and degradation.



Figure 4. Global and European targets and indicators related to land use and degradation [3].

Urban regeneration and sustainable development are two key and intertwined issues on the policy agenda as well as in planning practices and research. To “make cities inclusive, safe, resilient, and sustainable”, the Sustainable Development Goal of the United Nations’ Agenda 2030 No. 11 focuses on the urban environment, and the New Urban Agenda supports this objective by promoting urban planning as an influential instrument for sustainable development [11]. Urban regeneration may require redevelopment of brownfields, adaptation of heritage buildings, reconstruction of underused sites, reuse, heritage preservation, space reactivation, etc. Best practices show that urban regeneration has the power to transform obsolete areas into livable, vibrant, sustainable, comfortable, and thriving spaces. In this way, urban regeneration is used as an effective tool to prepare urban areas to face changes in urban populations [12]. Several European countries have taken proactive measures to combat land degradation and promote sustainable urban development. The introduction of green belts, environmental constraints, ecological corridors, and green networks reflects an integrated approach to urbanization [13]. Through mitigation strategies and ecological compensation, these countries have effectively reconciled the need for urban expansion with the protection of the environment. Examining best practices in countries such as Germany, France, and Spain provides valuable insights into successful urban regeneration models.

4.1. Germany

Land take is of particular relevance in Germany, which has one of the highest rates within the European Union. Even in areas with a declining population, the expansion of built-up areas continues across Germany [14]. Land take is quantified based on two datasets: the “Authoritative Real Estate Cadastre Information System” and the “Digital Basic Landscape Model of the Authoritative Topographic and Cartographic Information System” [15,16]. In Germany, land take comprises the conversion of non-artificial areas into settlements and transportation networks (excluding, for example, the creation of mining sites from undeveloped land) [16]. National targets in Germany aimed to reduce land take from 56 hectares per day in 2018 to 30 hectares per day in 2020 [17]. This target was not achieved and is now under revision and reconsideration for 2030, in line with

the Sustainable Development Goal (SDG) 11. These land take targets at the national or federal level hardly translate into locally targeted impacts due to their nonbinding character and the planning sovereignty of German municipalities. Therefore, a reduction in land take is only achievable through the self-commitment of local authorities. Even if single municipalities make efforts to reduce their land take, other municipalities might try to gain by attracting land users from land-saving municipalities [18]. In this way, efficiency gains in land take in booming regions are counteracted by inefficiencies in other regions, most likely due to lower land prices in regions with low-density urban sprawl [19]. This leakage in land take provides a difficult governance setting if land take for settlement and traffic infrastructure is to be reduced. For the governance of land take, an effective and accepted approach in practice is therefore needed [18].

The current urban renewal initiatives in major German cities have a dual objective: on the one hand, energy-efficient refurbishment and, on the other, the reassessment of urban morphology. These initiatives aim to explore new opportunities by transforming peripheral districts to counter rural urbanization and preserve natural spaces to ultimately improve social well-being and mobilize resources for comprehensive revitalization. Large, currently underutilized administrative centers are identified as opportunities for urban renewal through conversion into residential neighborhoods and represent a new starting point in German suburban reform policy. Cities are seen as dynamic entities that can adapt to different architectural forms. The projects are transformed into “living spaces” that aim to increase urban density and restore morphological complexity with lively streets and squares. In addition, through nature-based regeneration and a redefined connection with nature, these projects offer neighborhoods the opportunity to increase their value and potentially become defining features or points of attraction in suburban landscapes. Originally isolated settlements, today they are once again integrated into urban life and reflect a new concept of social stratification [20]. In the Federal Republic of Germany, early urban renewal efforts emerged following regional model projects, particularly in Berlin and North Rhine-Westphalia. The culmination of these initiatives was the adoption of the Urban Development Promotion Act in 1971, which laid the foundation for the stabilization of area-specific urban renewal measures, which are a central aspect of the urban development promotion system. The framework is based on the special urban development law in the Federal Building Code, which enables special legal regulations for redevelopment areas designated by municipal bylaws to deal with urban development issues on time. It grants local authorities legal options, including conditional approvals and rights of first refusal during construction or demolition, which facilitates the realization of redevelopment goals. In addition, the law supports redevelopment projects with funds from federal and state grants to offset unprofitable costs incurred by regulatory or construction activities. It is assumed that public funds have considerable triggering and bundling effects and mobilize additional resources in areas undergoing urban renewal [21]. The Urban Redevelopment Program East was introduced in 2002, and the Urban Redevelopment Program West in 2004. These programs aim to create and maintain functioning cities of all sizes. The current variety of programs (Figure 5) is essential to finance city planning and urban revitalization efforts, regardless of whether the recipient communities are large, small, urban, or rural. The diversity mirrors the needs of different periods and areas. One advantage is that funding can be provided based on the detailed needs of each planning project and community. The precondition of an integrated development concept ensures that projects consider the “big lines” of national and European decisions on issues of ecology, sustainability, and climate change. In addition, the districts should meet the needs of all residents and take account of demographic and economic structural change. In city centers, the program supports the preservation of older existing buildings and the revitalization of derelict areas and buildings. These measures should be in line with the requirements of sustainability and climate change [22]. Recent legislation includes the “German Strategy for Sustainable Development” (2021) and the “Federal Action Plan for Nature-based Solutions for Climate and Biodiversity” (2023).

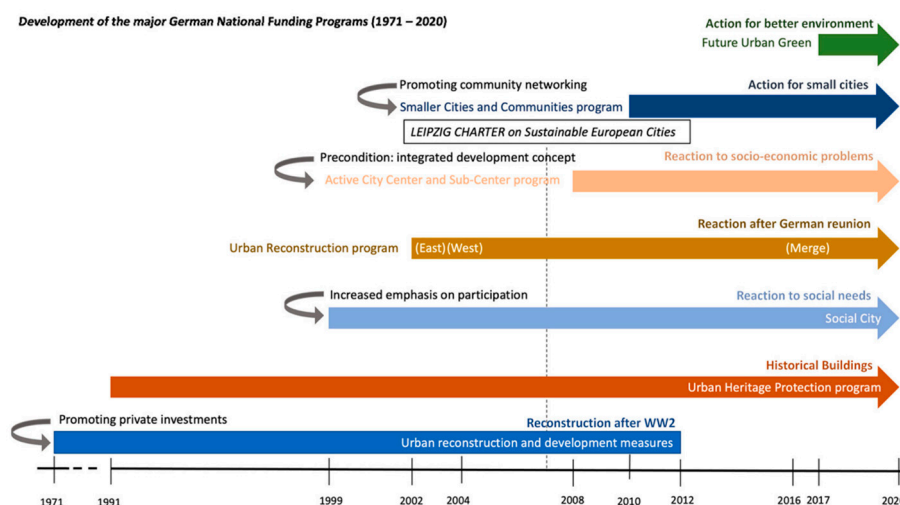


Figure 5. Development of the major German national funding programs. The figure shows how the programs developed and the reason why they were introduced. It also includes major changes, like the inclusion of an integrated development concept as a precondition [22].

4.2. France

Urban and spatial planning plays an important role in understanding and managing urban sprawl [23]. The French planning system has undergone major changes in recent decades based on several laws promoted by the central government to better adapt to the new paradigms of society [24]. Since the 1980s, with the decision-making autonomy given to the municipalities by the decentralization laws, investments have been made in inter-municipal cooperation to curb increasing urban sprawl. With the 1999 law (Law No. 586 of 12 July 1999), the objectives of cooperation were extended and focused on achieving sustainability, territorial cohesion, planning at the appropriate level (city proper or basin de vie), real governance through the comprehensive delegation of powers in the field of urban planning and the sector, the implementation of integrated projects and, above all, fiscal solidarity. The latter is an important innovation because, without territorial equalization, it is unrealistic to curb land take, limit the dependence of municipalities on housing subsidies, and improve economic efficiency and territorial quality if fragmented competition between municipalities is allowed. The Taxe Professionnelle Unique (TPU), which is mandatory for large metropolitan areas and optional for small municipalities, has introduced an efficient model of territorial equalization that redirects about 40% of local tax revenues to the Communautés. State support for significant territorial equalization involves subsidizing the municipalities through an equalization fund linked to the intensity of inter-municipal cooperation (DGF: Dotation Globale de Fonctionnement) [23]. The implementation of the law has brought several challenges, including a significant increase in public spending, the emergence of territorially limited “intercommunalités de rassemblement” characterized by homogeneous social and political dynamics, and the risk of “land-Malthusianism” in Communautés with high social and environmental levels, which hinders urbanization opportunities for vulnerable functions and groups [25,26].

The French law “Loi de solidarité et du renouvellement urbain” (Law No. 1208 of 13 December 2000) is the first urban planning law in France that promotes urban renewal instead of increasing urban areas, thus promoting the densification of cities instead of using undeveloped land for urban development [27]. This law reorganizes the missions of the Metropolitan Plan (SCOT/Schéma de la Cohérence Territoriale) by introducing a rule for the prudent consumption of peri-urban areas, the so-called “15 km rule”. According to this rule, if the municipalities of an urban agglomeration do not agree and do not approve the spatial framework plan (SCOT), all municipalities that are less than 15 km away from urban centers with at least 50,000 inhabitants or the coasts cannot carry out major urbanization interventions in new peripheral areas or create large commercial areas. The careful design

of urban–rural boundaries to protect agricultural areas and natural spaces is of central importance in various contexts. For example, in France, particular attention is paid to the lines of contact between urban spaces and natural and agricultural spaces, as they are seen as boundaries of urbanization, spaces of transition, and mutual enhancement between city and nature. Best practices in this area have benefited from significant financial and coordination efforts by central governments [23].

One of the most important breakthroughs was the promulgation by the French Ministry of Ecology in 2010 of the Law “Engagement National pour l’Environnement” (better known as the Grenelle II Law), which strengthened the environmental requirements to be incorporated into planning documents [24]. The law established a new instrument for the protection of biodiversity, the Trame Verte et Bleue (TVB), the first attempt to integrate the concepts of landscape ecology into legislation and spatial planning tools [28]. Grenelle II was translated from the National Strategy for Sustainable Development, launched in 2006 to reduce the growth of artificial surfaces by encouraging new infrastructure on already developed land. Grenelle II has an action line for the reduction of land take [8].

The French goal is ambitious: by 2050, a zero level of artificial development is to be achieved, i.e., there will be no more untouched areas that are urbanized, only urbanized areas that are transformed. To this end, the French government has set up a fund of EUR 750 million to finance brownfield redevelopment projects, particularly in former industrial regions, which are often described as an ecological sieve that is difficult to contain [29]. The fight against soil artificiality is a central point of the “Biodiversity Plan” (2018), to achieve “net zero artificiality”. The aim is to limit the consumption of new land as much as possible, and if this is not possible, to “give back to nature” the equivalent value of the land consumed. The challenge is to be as vigilant as possible in urbanization methods, including to consume as little natural, agricultural, and forestry land as possible, to promote the reuse of already urbanized land as much as possible (vacant dwellings, industrial or commercial wasteland), and to promote the design and implementation of slightly more compact operations that integrate green spaces. The Élan Act (2018) encourages local authorities to develop local urban intensification projects to reduce uncontrolled urban sprawl [30]. This was followed in 2019 by a report called the “France Relance” Plan, which provided EUR 650 million for two main measures. The first of “urban concentration” (urban densification) will see EUR 350 million allocated to the mayors of the municipalities with the strongest expansion (therefore with land take), for example by granting aid, based on building permits and within urban limits, to raise a building in planning by one or two floors, passing, for example, 20 to 30 new apartments, rather than using non-urbanized land, or greenfields. The second sets up a fund with EUR 300 million for brownfields or underutilized urban areas (there are about 1375 in France), to shift the demand for new construction there. The French recovery plan then adds a complex action aimed at the revitalization of historic urban centers, in relative decay in some areas of the country. Some national instruments and programs are being supported or accelerated, both for the “small towns of the future” and the “city centers”.

The Climate and Resilience Act (2021) sets the goal of achieving “the absence of any artificial land use” by 2050, known as “Zero Net Artificialization” (ZAN). It also sets an initial interim target of halving the rate of land take over ten years (2021–2031). ZAN does not advocate the cessation of all construction; on the contrary, development must be reconciled with the housing revival [30]. The Climate and Resilience Act defines land take in article No. 194 as follows: “the consumption of natural, agricultural and forestry areas is understood to mean the actual creation or extension of urbanized areas in the area concerned. In the same area, the effective transformation of urbanized or built-up areas into natural, agricultural, and forestry areas as a result of renaturation can be deducted from this consumption” [31].

4.3. Spain

Spain is defined as a quasi-federal state with four levels of government: the national government, 17 autonomous communities, 50 provinces, and 8119 municipalities. Autonomous communities develop and complement the basic national framework legislation concerning land use by establishing their legislative framework on land use planning [32]. In Spain, land use regulatory responsibilities are shared by different levels of government. The central government establishes the land use regulation benchmark (as regards the protection of areas designated “non-developable”), while local governments are responsible for passing municipal land use plans [33]. Since the enactment of the Spanish Constitution in 1978, the country has operated on three levels, national, regional, and local, with legislative powers distributed between central and regional governments. While local authorities lack legislative powers, they assume substantial governance and management responsibilities. Urban development, spatial planning, and housing fall under the jurisdiction of the regions, preventing central government legislation on these matters. However, regional planning instruments are predominantly derived from the Land Act of 1956, and spatial planning often acts as a restrictive framework for urban planning. General urban plans establish rights and obligations for landowners, with subsequent plan types building upon and defining them. The decentralization of powers in urban development aims to tailor it to Spain’s diverse cultures, climates, and territories. Variances in settlement, construction, and environmental issues across regions like Asturias, Extremadura, Catalonia, Madrid, and Valencia preclude a uniform approach. Spatial planning differences are particularly pronounced among autonomous regions, with legislative efforts often prioritized over implementation. Notably, the Madrid Regional Government’s inability to approve the Regional Territorial Strategy Plan exemplifies the challenge, leaving spatial planning predominantly under sector planning, without an integrated territorial vision for coordination [34]. Royal Legislative Decree 7/2015, issued on 30 October, approves the consolidated text of the 2015 Law on Land and Urban Rehabilitation. According to the Spanish Constitution, land use and urban planning fall under the jurisdiction of the autonomous communities. As a result, all autonomous communities include these legislative powers in their statutes of autonomy, while local entities retain managerial powers, excluding authority in the property regime [35]. Land management has been complex and slow in Spain. Currently, some regional laws are aiming to facilitate better land management using new regulations promoting professional development [36]. Spain is dealing with extensive land degradation caused by land use and land cover change, for instance due to land abandonment and local geo-ecological conditions [37]. The 2030 Spanish Urban Agenda specifies that spatial planning should make rational use of soil, while urban sprawl should be avoided, revitalizing existing urban areas. The definition of strict planning policies and their implementation are required to prevent future land degradation and maintain urban compactness in Spanish urban areas [38]. Scientific research [39] has revealed that between 2000 and 2012, Spain was by far the country with the greatest growth in land use (218,000 ha, 19% of the European total). This also occurred at a faster pace. This is consistent with other evidence in the same direction, such as an increase in prices of urbanization in the previous decade that were “substantially more pronounced than in Europe as a whole”. From a quantitative point of view and on a European scale, in the same time frame, Spain recorded the largest amount of artificial land use in Europe (218,200 ha), developing more than Germany, Britain, and Italy combined, and 47% more than the country in second place, France. In these 22 years, the urbanized surface area of Spain increased by 504,543 ha, equivalent to half of the already occupied land taken up by cities, towns, and infrastructure before 1990 [39].

In recent decades, urban rehabilitation and regeneration have been priorities for the Spanish government at all levels, from the central body that sets guidelines and strategies to the regional bodies that implement them operationally. The “Ley de Rehabilitación, Regeneración y Renovación Urbanas” (2013) is the most important indicator of this attention. This framework law amends and complements existing legislation and proposes a new perspective for public action in urban planning, focused on interventions in existing areas

and the creation of environmental, social, and economic conditions that favor sustainable development and quality of life. This renewed interest in the city often concerns urban areas affected by abandonment as well as physical and social decay, using natural and cultural elements as instruments of regeneration [40].

The Agenda Urbana Española (2019) is an important strategic tool containing a decalogue of important objectives for promoting and improving urban spaces in Spain. The breakdown of these objectives into 30 specific and 291 action lines is particularly detailed and provides a complete picture of priorities and areas of intervention. This organized structure not only provides clarity in the definition of objectives but also flexibility in the practical approach. The conception of the Agenda as an “à la carte menu” underlines its adaptability to different local needs and contexts and allows those involved in its implementation to select and adapt objectives according to the specificities of their municipality or urban area. In this way, the Agenda Urbana Española not only steers urban change but also encourages the active and personal participation of local authorities and stakeholders, thus strengthening the effectiveness and sustainability of the initiatives [41].

5. Discussion

The Nature Restoration Law was adopted by the European Parliament in July 2023. It is a proposal for a regulation that, when it comes into force, will require nature and environmental restoration measures to be implemented on 20 percent of the EU’s marine and terrestrial territory by 2030. In a second step, by 2050, all damaged ecosystems are to be restored. It acts in cities by halting the loss of urban green spaces by 2030 and increasing their area by five percent by 2050, setting a minimum threshold of ten percent tree cover in every city, municipality, and urban periphery, and introducing the obligation to reclaim green spaces that are integrated into buildings and infrastructure [42]. The purpose of the law is to aim to remedy the alterations caused by anthropization and, therefore, the NTL finds its greatest application in the type of intervention that has changed the original natural conditions, but before the settlement and exploitation of nature. This policy is also aimed at urbanized areas, placing itself at the center of urban and territorial planning, where it explicitly intervenes in urban greenery but implicitly also involves waterways, urban agriculture, and the production of energy from renewable sources, constituting a tool for the creation of green and blue infrastructures [43].

Grasping the potential impacts and limitations of the law is essential for informing future policy adjustments and enhancements. The NTL will help to restore degraded areas and bring Europe in line with the objectives of the Green New Deal and the European Biodiversity Strategy. The NTL, albeit indirectly, is intricately connected to the concept of soil consumption. The measures outlined in the NTL can be seamlessly integrated into the French legislative framework, where the notion of soil consumption predominantly carries ecological significance. France prioritizes judicious land take and urban renewal over expansion, establishing ambitious objectives for achieving zero artificial development by 2050. Spain exhibits certain convergences with the NTL, although the existing legislation requires integration to align with the objectives set forth by the European Union. In Germany, there is a notable alignment with the principles advocated by the NTL. However, the situation in Italy is somewhat more intricate due to the absence of a national law specifically addressing land take and urban regeneration actions. While some regions in Italy may align with the provisions outlined in the NTL, the entire legislative system requires updating and, in some instances, establishment to fully align with the proposed actions. Another crucial aspect deserving attention is the diverse range of urban settlement types prevalent in the countries under scrutiny. Specifically, Germany and France share a relatively similar urban morphology, which starkly contrasts with the situations in Italy and Spain. In Spain, there is no clear definition of land take at the national level. Spain only provides specific definitions for urbanized or decentralized land, without a comprehensive conceptual framework for the concept of land use. In Germany, land take assesses the transformation of non-artificial territories into residential areas and transportation networks. In France, the

concept of land take is intrinsically linked to an ecological value, emphasizing an approach oriented towards environmental protection. In Germany and France, the urban landscapes exhibit comparable characteristics, reflecting a shared approach to urban development. This commonality in urban morphology may influence how these nations address various challenges and implement policies related to land use and development. A case in point is Germany, which implemented a national framework several years ago. It not only achieved its objectives well in advance but is also actively refining its strategies to reach the ultimate goal of zero net land take. This accomplishment serves as a noteworthy example, demonstrating the effectiveness of a comprehensive legal framework [17]. However, Italy and Spain exhibit highly distinct settlement patterns. Numerous international studies and articles in past years have demonstrated that Italian urban settlements adhere to one of the most sprawling models in Europe, giving rise to a myriad of widely varied and serious challenges [44]. In Italy, there is no specific national law and each region proposes its definition of land take, generating a fragmented and heterogeneous panorama on the national territory, as shown in Table 1. Each region can set targets and derogations on its own. Consider, for instance, the Emilia-Romagna region (Table 1). The legislation specifies that the new land take must be limited to 3% of the already urbanized area (instead of the previous 11% stipulated by urban planning tools) and will be permitted only for projects that can support the development and attractiveness of the territory. Excluded from this limit are major inter-municipal public works, projects qualified as of public interest by existing regulations; expansions and renovations of buildings used for business activities; new productive settlements of regional strategic interest; urban parks and other ecological-environmental facilities; buildings in rural areas functional to agricultural enterprises; and interventions for the partial recovery of the surface of buildings no longer functional for agricultural activities.

6. Conclusions

The increasing deterioration of soil quality in Europe, mainly due to urbanization and soil sealing, has led various European countries to adopt policies to limit land take and promote urban regeneration. In this context, Italy finds itself in a nuanced legal framework characterized by both national regulations and overarching European policies, highlighting the intricate interplay between these two levels of governance. An examination of the definitions of land take definitions in Italy and other European countries reveals remarkable discrepancies that reflect different approaches to environmental policy. The definition of land take plays a crucial role as different interpretations influence the monitoring system. The regions have developed their own monitoring methods to assess the effects of these policies, albeit on relatively smaller scales compared to the European context. For instance, both the Autonomous Province of Trento in Italy and the Emilia-Romagna region have implemented monitoring systems, albeit tailored to their respective contexts. In Trento, the monitoring methods encompass the Environmental and Territorial Information System, serving as the mandatory basis for drafting urban planning instruments. Additionally, the establishment of the Landscape Observatory facilitates documentation, study, analysis, and monitoring of the Trentino landscape's evolution. Furthermore, Trento employs a system for monitoring transformations under the current plan, with municipalities submitting outcomes to the regional government periodically for further evaluation. The region assumes responsibility for monitoring land take and disseminating relevant data on its website. To bolster these efforts, Trento utilizes the regional topographic database, which serves as the territorial information base for collecting and managing data supporting planning functions. Similarly, in the Emilia-Romagna region, municipalities monitor transformations following the current plan and submit outcomes to the regional government regularly for assessment. The regional government assumes the responsibility of monitoring land take as per legislation and publishes relevant data on its website. To support these monitoring endeavors, the region has established the Regional Topographic Database, which serves as the territorial information base for collecting and managing data to support planning

functions. This database, in conjunction with the Municipal Real Estate Registry, facilitates the collection and representation of building and urban transformations, crucial for calculating land take. Both regions have adopted measures aimed at effectively monitoring land use changes and promoting sustainable development. However, differences may arise in the specific methodologies and administrative structures employed, reflecting the unique characteristics and priorities of each region.

The decentralized nature of land management in the absence of a unified national legislation leads to a variety of approaches and strategies across different regions. For instance, in the Umbria region, monitoring is not explicitly outlined. Verification occurs solely in advance, during the formulation and approval of the Municipality Plan. Nevertheless, there exists a comprehensive knowledge system, namely SIAT—the System for Environmental and Territorial Information [3]. The difference in urban morphology observed among the examined countries entails the implementation of different policies and techniques to address the phenomenon. Managing a fragmented and dispersed settlement, as in Italy, requires different approaches compared to a territory characterized by settlements with well-defined margins. In Italy, defining an urban perimeter is particularly challenging. The lack of a uniform methodology for delineating urban perimeters in Italy results in a discretionary approach. This contrasts with countries like Germany or France, where the definition of urban perimeters can be based on more structured techniques and analyses. It is essential to emphasize that the challenges faced by Italy are unique and differ from those of Germany or France, but the different settlement typology calls for an equally diverse approach. The regional SWOT analysis revealed strengths such as the direct engagement of local authorities through regional regulation, the promotion of the better use of resources by focusing on the regeneration of existing urban areas, and the preference for urban densification over urban sprawl. However, significant weaknesses were also identified, including the ambiguity of definitions, particularly concerning land use, which could lead to unsustainable urban developments, and the risk of encouraging additional land take through regeneration projects, thereby undermining sustainability efforts.

The importance of soil at the European level must be emphasized, especially because of the ongoing discussions on the European Soil Directive, which is currently being reviewed by the European Commission. It is worth noting that the first attempt to adopt a European Soil Directive failed back in 2007 but has since been revived. In addition, there is another directive on soil, which indicates that this issue is receiving a lot of attention at the European level. Despite the lack of a ratified directive at the European level, many European countries are taking proactive measures to address soil-related challenges. This is an important aspect that is highlighted in the current work. It is worth noting that, unlike other European countries, Italy has set itself the ambitious goal of achieving soil neutrality by 2030. This goal, set for the near future, represents a major challenge given the complexity of the issue. This distinction is particularly noteworthy, as Italy's stance on soil management is relatively well known in European circles. Nevertheless, given the current trajectory, achieving a zero balance by 2030 represents a major challenge and underlines the urgency of effective soil management strategies.

Although attempting to simplify every procedure to the utmost degree, it is quite clear that an efficient action to limit soil take cannot be considered immediate or elementary within the current Italian instrumental framework, which is largely unequipped in this regard. An efficient procedure would, therefore, require a preparatory path that should reconsider seemingly immovable paradigms, including, first and foremost, the excessive protectionism of plans toward property and private rights [45]. The lack of coherence at the European level can lead to errors in territorial management, as evidenced by the paradigmatic case of the metropolitan city of Bologna, where discrepancies between regional and national monitoring have led to significant errors in land management [46]. The link between uniform definitions and economic impacts is crucial. Experience with more stringent environmental regulations shows that investments shift in response to regulations. Land take, therefore, can affect national economies, with the possibility of

moving farms to more permissive countries. The lack of firm direction at the European level could generate a new reorganization of the economic structure, with consequences for the polarization of investments and the economy as a whole. The importance of defining uniform territorial dimensions for the application of the rules emerges as a critical element. Regional differences in the application of restrictive laws are problematic, pointing to the need for uniform legislation covering both urban regeneration measures and NTL. The goal of net zero land take requires an integrated and consistent approach at the national and European levels to avoid exemptions and promote sustainable land management without compromising the economy. The synthesis of European approaches highlights the need for a multi-layered and context-specific strategy for sustainable urban development. Balancing local autonomy with overarching environmental goals, promoting inter-municipal cooperation, and implementing targeted funding programs are critical elements in navigating the complex landscape of land take and urban regeneration. As these countries refine and adapt their policies, shared learning and best practices will play a crucial role in shaping a resilient and sustainable urban future for Europe.

Based on an analysis of European and Italian experiences, key principles emerge that should be taken into account when formulating a comprehensive legislative framework on the topic. This proposition is intended to be forward-thinking, not only outlining emerging findings but also providing practical recommendations based on these experiences. The legislation should encompass unambiguous and precise clauses to prevent potential misinterpretations and manipulations. Moreover, it should advocate for the revitalization of current urban areas by promoting urban intensification over urban sprawl. By incorporating these fundamental principles, a valuable and efficient roadmap could be developed for future endeavors in this field, thereby assisting in mitigating probable challenges and ensuring a sustainable and coherent approach to land management.

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