# TeMA

Journal of Land Use, Mobility and Environment

The climatic, social, economic and health phenomena that have increasingly affected our cities in recent years require the identification and implementation of adaptation actions to improve the resilience of urban systems. The three issues of the 15th volume will collect articles concerning the challenges that the complexity of the phenomena in progress imposes on cities through the adoption of mitigation measures and the commitment to transforming cities into resilient and competitive urban systems.

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## THE CITY CHALLENGES AND EXTERNAL AGENTS. METHODS, TOOLS AND BEST PRACTICES

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## REVIEW NOTES – NextGenerationEU and urban development The interventions of the Italian Recovery and Resilience Plan: Urban regeneration of the Italian cities

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#### **Abstract**

Starting from the relationship between urban planning and mobility management, TeMA has gradually expanded the view of the covered topics, always following a rigorous scientific in-depth analysis. This section of the Journal, Review Notes, is the expression of a continuous updating of emerging topics concerning relationships among urban planning, mobility, and environment, through a collection of short scientific papers. The Review Notes are made of five parts. Each section examines a specific aspect of the broader information storage within the main interests of TeMA Journal.

This section of the Review Notes explores a specific topic, related to cities, within the framework of the European program NextGenerationEU.

This contribution deepens the topic of urban regeneration, providing an overview of the urban regeneration measures in the Italian Recovery and Resilience Plan and deepening how these measures are intended to make Italian cities more sustainable and inclusive. Furthermore, it highlights the main strategies, reforms, and interventions for urban regeneration, which have been activated in Italian cities, thanks to the NRRP investments.

#### Kevwords

NextGenerationEU; Urban regeneration; Sustainability; Inclusion.

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#### 1. Introduction

On March 11, 2020, The World Health Organization declared the novel coronavirus (COVID-19) outbreak a global pandemic. The limits imposed by the national governments in the whole world, along with the changes in travel, commerce, work, and social distances, placed the global economy in front of an epochal challenge, determining different reactions of countries. In 2021, the European Union launched the program NextGenerationEU, a more than €800 billion temporary recovery instrument to help repair the economic and social damage brought about by the coronavirus pandemic, by operating in different fields (EC, 2021). Each Member State has been invited to develop its recovery and resilience plan to access the funds under the Recovery and Resilience Facility. In this context, Italy proposed its program of investments "Italia domani", which was approved by the European Commission on July 31, 2021 (Governo Italiano, 2021). The document outlines how the country will invest €191.5 billion to overcome the effects of the COVID-19 pandemic by describing which projects Italy intends to implement with the European funds. It defines how these resources will be managed and presents a timetable of the reforms necessary to implement the plan and modernize the country. In addition to the COVID-19 crisis, the plan is intended to face other present and future challenges, such as digital and green transitions, economic and social resilience, and territorial cohesion. These topics are key aspects for ensuring better levels of resilience for the country and Italian cities.

The Italian NRRP provides for both regulatory measures (reforms) and the implementation of public works (investments). Reforms and investments are structured into 16 sectors, which are divided into six missions: (i) Digitization, Innovation, Competitiveness, Culture and Tourism; (ii) Green revolution and Ecological transition; (iii) Infrastructures for Sustainable Mobility; (iv) Education and Research; (v) Inclusion and Cohesion; (vi) Health (Governo Italiano, 2021).

The investments are organized in horizontal reforms (horizontal to all the objectives of the plan), enabling reforms (actions to ensure the implementation of the Plan) sectoral reforms (contained within the individual missions of the plan), and reforms of implementation (which define the modalities of implementation). The targets of the plan must be achieved by 2026. The Italian government assesses the impact associated with the achievement of these targets as a growth of 0.8%, bringing the potential growth rate in the final year of the plan to 1.4%.

This contribution is framed within a more extended study that aims at exploring some of the most significant topics afforded in the Italian National Recovery and Resilience Plan (NRRP) from an urban perspective. Cities play, in fact, an important role on the road to recovery, hence it is interesting analyzing the future of Italian cities in the light of the contents of the plan. Firstly, in Italy cities constitute the main implementing bodies of the strategies and interventions proposed, given that a large part of the European resources has been assigned to the direct management of metropolitan cities and municipalities. While the central government will function as a control room, the Municipalities and Metropolitan Cities will play a role in the implementation of most of the territorial projects, participation in initiatives financed by the Central Administration and management of resources and interventions already programmed by the plan. Secondly, they represent a piece of strength for recovery and improvement of resilience of the country since they are a vast pool of resources, services and facilities, skills, and people. And, for this reason, the NRRP constitutes a great opportunity for the recovery and growth of Italian cities.

#### 2. Urban regeneration in the Italian NRRP

Among the emerging topics of the Italian NRRP relating to cities, it is worth deepening urban regeneration. Since the 1990s', urban regeneration has gradually become the key to problems of marginalization and abandonment of urban areas (Roberts et al., 2016). It can be seen as a combination of integrated measures, initiatives and interventions aimed at taking action in an area characterized by social and economic problems

but also opportunities of improvement (Gargiulo & Sgambati, 2021). Urban regeneration strategies can regard different urban dimensions such as settlement, economy, environment, society and culture (Mecca & Lami, 2020). Objectives of urban regeneration can be achieved by implementing both hard and soft measures. The former concern the urban settlement and physical infrastructures (e.g. the redevelopment of built heritage). The latter includes governance, participation of citizens and other integrated actions. Regeneration is often considered an efficient tool for the transformation of urban areas to tackle social, environmental, cultural, and economic issues and enhance the level of resilience of territories and communities (Mazzeo, 2018). Other horizontal benefits regard the improvement of urban quality, the quality of life for citizens and the level of attractiveness of urban areas (Bianconi et al., 2018; Degen & Garcìa, 2012; Ng, 2005; Güzey, 2009).

Contextualizing the topic of urban regeneration in the Italian NRRP, one of the transversal priorities of the plan is the reduction of territorial gaps between the north and the south of the country and between the major centers and the suburban and inner areas (Openpolis, 2021). The mission of the plan that is most related to urban regeneration is Mission M5 "Inclusion and cohesion" - which can rely on €19.85 billion - and, in particular, the component M5C2. This component includes the interventions shown in the table below.

ID of the investment	Investment	Implementing bodies	Resources (€ billion)
M5C2.2.1	Urban Regeneration to reduce marginalisation and social degradation	Municipalities	3.3
M5C2.2.2	Integrated Urban Plan	Municipalities and Metropolitan Cties	2.49
M5C2.2.2a	Integrated Urban Plans overcoming unauthorized settlements	Municipalities	0.2
M5C2.2.2b	Integrated Urban Plans Fondo dei Fondi	Private subjects	0.272
M5C2.2.3	Social housing – Piano innovativo per la qualità dell'abitare (PinQua)	Regions, Provinces, Metropolitan Cities, Municipalities	2.8
M5C2.3.1	Sport and social inclusion	Municipalities	0.7
M5C3.1.1.1	National strategies for inner zones	Municipalities	0.725
M5C3.1.2	Valorization of goods confiscated from mafia	Provinces, Metropolitan Cities, Municipalities	0.3

Tab.1 the investments for urban regeneration in the Italian Plan for Recovery and Resilience (Source: Openpolis https://www.openpolis.it/i-nostri-open-data-per-il-monitoraggio-del-pnrr/)

M5C2.2 involves Metropolitan Cities and municipalities in the drafting and implementation of Integrated Urban Plans (Piani Urbani Integrati) aimed at the maintenance/reuse of public areas and buildings, the regeneration/valorization of unutilized, under-utilized or mis-utilized urban areas, and the development of cultural, social, sport and safety services (IISole24ore, 2021). In addition, the plan allocates  $\in$ 0.2 billion for Integrated Urban Plans for unauthorized settlements and 0.272 for the "Fondo dei Fondi".  $\in$ 2.8 billion are for social housing and in particular for the Innovative plan for housing quality (Piano Innovativo per la qualità dell'Abitare PinQua), some of which are reserved for existing projects and others for future projects.  $\in$ 0.7 billion are allocated to improve sports facilities and increase social inclusion among urban communities. Other investments aim at the redevelopment, the enhancement of attractiveness in inner zones and the reduction of the processes of abandonment in small villages ( $\in$ 0.725 billion). There is also a quote destined for the refunctionalization of properties confiscated from the mafia ( $\in$ 0.3 billion), in order to redefine their role in urban settlements and cities 'communities. On the whole, the plan has assigned  $\in$  3.3 billion for urban regeneration projects whose beneficiaries will be 483 municipalities. 53% of the fund for urban regeneration has been

assigned to Southern regions. Campania is the region that benefits from the largest amount of resources (€486.60 billion).

To summarize, the topic of urban regeneration in the plan includes measures that deal with the strengthening of proximity services and accessibility, the re-functionalization or redevelopment of buildings and public spaces, the promotion of social inclusion and the reduction of marginalization and degradation. It is intended to enhance livability in urban areas, especially those affected by marginality and social and economic inequalities, and increase the safety of neighborhoods. Urban regeneration measures must be accompanied, according to the NRRP, by the construction or renovation of existing buildings to support housing of the most vulnerable people such as the elderly, lower-income citizens or people with disabilities. The promotion of culture and sport in urban environments contributes to the improvement of public welfare and sustainable economic development, as well. The subject of the redevelopment will be municipalities and metropolitan areas affected by problems of degradation and widespread vulnerability, in order to overcome inequalities, threats and weaknesses, while, at the same time increasing their competitiveness. Once completed, the interventions will provide substantial benefits in terms of quality of life, sustainability and attractiveness of territories since they will be able to reduce social disparities and create new opportunities for citizens.

Subsequently, there is a selection of the strategies, reforms and individual projects concerning urban regeneration financed by the plan.

#### **Integrated Urban Plans (Piani Urbani Integrati)**

The Integrated Urban Plans relate to the investment M5C2.2.2 and concern urban regeneration interventions with a value lower than €50 million for Metropolitan Cities, which will identify the eligible projects. The investment has been proposed to support general projects for the realization and implementation of integrated urban plans aimed at the maintenance and reuse of public areas and buildings along with the regeneration and enhancement of underused or unused urban areas. The interventions concern the recovery of public areas and structures, the improvement of urban decorum, the social and environmental urban fabric, and the development of cultural, educational, sports, and security services for residents. In particular, the investment regards the suburbs of Metropolitan Cities and involves participatory urban planning, with the aim of transforming vulnerable territories into smart and sustainable cities, limiting land consumption. The Integrated Urban Plans will allow planning synergies between the main municipality of the metropolitan area and the smaller municipalities. The plans will have the objective of repairing urban fabric, reinforcing connectivity between territories, filling infrastructure and mobility deficits, as well as promoting social and entrepreneurial participation processes. The projects will have to give back to the communities an identity through the promotion of social, cultural, and economic activities with particular attention to the environmental aspects. This investment has been thought to make Italian cities more sustainable and inclusive. Financed projects must lead to the improvement of degraded urban areas through the creation of new services and the requalification of accessibility and infrastructure, accompanied by the improvement of urban decorum and renovation of public buildings. As regards the development and enhancement of social and cultural services, the promotion of cultural and sporting activities in the areas of intervention is fundamental. Finally, for what concerns projects related to smart cities, which is one of the objectives of Integrated Urban Plans, the focus will be on transport and energy consumption, with the vision of improving the environmental and digital quality of urban areas. For the selection of the projects, priority must be given to areas with high values of social and material vulnerability index and to projects aimed at guaranteeing the autonomy of vulnerable groups. Moreover, the interventions must ensure feasibility as well as an increase in energy performance. Some of the funds (25% of the interventions' total budget) are allocated for private subjects. The NRRP allow also for the participation of public services start-ups and the co-planning with the third sector.

#### PinQua - Piano Innovativo Nazionale per la qualità dell'abitare

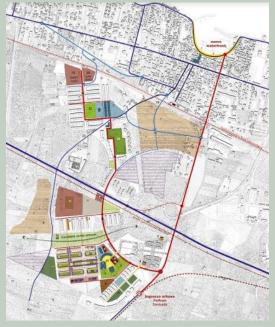
The Innovative Plan for housing quality was at first introduced by the Ministry of Infrastructure and Sustainable Mobility (MIMS) with the 2020 Italian budget law which set transformation targets for 2033. Then the law targets have been adopted by the NRRP although with a briefer schedule (2026). This national strategy refers to the component M5C2 and, specifically, to the investment 2.3. The interventions linked to this investment aim to increase and improve the public housing stock and regenerate urban centers and suburban areas. This investment has the objective of improving the accessibility, functionality, and security of Italian cities and neighborhoods.

A special commission has the task of selecting the projects which deserve to be financed, according to selection criteria defined by art.8 D.M. 395/2020. In particular, priority has been given to interventions in areas with greater housing

problems, to the recovery and valorization of cultural heritage, and to interventions with lower impacts on land consumption. The implementers of the strategy will be Regions, Metropolitan Cities, and Municipalities with more than 60,000 inhabitants. The implementing bodies present a project proposal for a maximum budget of  $\in 15$  million. There is also the possibility to present a pilot project – considered strategic for the entire country – with a maximum budget of  $\in 100$  million. The investment consists of two actions: (i) the redevelopment and increase of social housing and the regeneration of urban society, through the improvement of accessibility and urban safety, mitigation of housing shortage and increase of environmental quality, inclusion and well-being, use of innovative models and tools for urban management; (ii) interventions with a high strategic impact on the national territory.

According to these criteria, 40.07% of the funds have been assigned to Southern regions, including Sicily and Sardinia, 32.27% to Northern regions, and 27.66% to Central regions. Puglia is the region with the higher number of financed projects (21). Lombardia is the second (17), followed by Lazio (15). A total of € 655 million has been allocated for pilot projects of urban regeneration. They deal with the reorganization of public spaces having strategic importance (such as Bari's Central Station), the redevelopment of social housing buildings, the recovery of suburban areas, and interventions of valorization of cultural and historic heritage. For what concerns the benefits of the plan, it is estimated that its implementation will result in a 38% reduction in primary energy consumption and a 31% reduction in annual CO2 emissions per square meter, with a significant effect on the fight against the climate crisis, which is critical above all for marginal areas.

#### Bari – the regeneration of San Pio, Santa Rita and the pilot project "Green Node"



Puglia is the most involved region in urban regeneration projects, having obtained the highest number of financed projects for urban regeneration. 3 projects regard the Metropolitan City of Bari, which received €45 million allocated to individual interventions. In addition, €75 million of the "Costa Sud" project, a six kilometers long coastal park that will redesign the south coast of the city, are allocated for the valorization of cultural attractors, in order to expand the tourist and cultural offer of the city of Bari.

The two projects of San Pio and Santa Maria are part of the Innovative Plan for housing quality (PinQua) since they have been selected as worthy projects. Both the urban regeneration programs contain 320 urban regeneration interventions (160 per district), developed within a defined strategy, in which social housing plays a priority role and aims to provide coherent responses to the needs expressed by citizens and by the local stakeholders.

In detail, €15 million were assigned to the regeneration of the district San Pio (ex Enziteto), characterized by low levels of social inclusion, marginality and a high criminality rate. The approved and financed project is called "Made in San Pio". It includes 160 strategies and interventions to enhance the

territory's productivity and at the same time defeat social problems, empower energy redevelopment, renew public spaces, and create new opportunities for young people and families, such as music and sports facilities, cinema, mechanical crafts and public art. Specifically, the strategy of transformation includes: the redesign of Piazzetta Eleonora; the demolition of the structure of the old market; the improvement of the level of accessibility and permeability with the district of Torricella; and the creation of new cultural and sporting facilities, such as a rock academy, a guest house for artistic residences, a social screen printing, a sports centre, a bike workshop, between the second floor of the Accademia del Cinema and the public building ex CNIPA currently unused. Participation is one of the main characteristics of the project since different stakeholders, institutions and associations have been involved in the drafting phase of the project proposal.

The second investment concerns the regeneration of the Santa Rita's district ("Santa Rita, il quartiere che abbraccia la cava"). €15 million have been allocated to mend and repair the territory. The objectives are the energetic redevelopment of the urban fabric, the empowerment of soft mobility - cycling and walking -, the reconversion of the market are in via Cascia into an equipped public park, and the provision of new cultural facilities such as schools, a public library, and an auditorium. The project vision aims to emphasize the naturalistic value and valorize the agricultural landscape of the district, at the same time overcoming the separation from the rest of the city.

The goal is to transform Santa Rita into a green neighborhood, with good air quality and a high level of wellbeing for its inhabitants. This is possible through the reorganization of the districts on the basis of sustainability principles, architectural quality, and social equity as well.

The third project has been included in the group of the eight high-performance "pilot projects". €100 million will support the reorganization of the area of the central railway station of Bari that, in this way, will become a hinge between the existing two parts of the city, currently divided by the rails. The project, by Fuksas, is called "Green node" and involves an area of about 160 thousand square meters. The area includes Piazza Moro and the railway between Corso Italia and Via Capruzzi, to Via Eritrea.

The financed project aims to reconfigure this part of the city by increasing green spaces, redeveloping existing public areas such as Piazza Umberto, increasing pedestrian and cycling flows and offering new services and facilities. Furthermore, 2 public parks have been included in the financing. The first will extend from the new metro station to via Quintino Sella, while the second will develop from via Quintino Sella to via Eritrea.

On the one hand, these interventions are intended to solve social and economic problems affecting the suburban and inner areas of the city of Bari (in particular the two residential districts and the area of the central station). On the other hand, the investments will provide horizontal benefits that will not only regard the social and economic sphere, but also environmental sustainability, citizens' quality of life and resilience of local communities.

(Image Source Quotidiano di Bari, 2021. Retrieved from: https://quotidianodibari.it/via-alla-rigenerazione-dei-rioni-san-pio-e-santa-rita/)

#### **Brescia - Torre Tintoretto**



One of the symbolic projects of the PinQua program regards the Tintoretto Tower of San Polo in Brescia. The tower – which has been recently demolished according to the project -was one of the results of the '70s urban planning vision and presented problems connected to the limits of social housing projects of the last century. That is why the project contains a lot of issues related to the general objectives of the NRRP and urban regeneration such as building replacement, improvement of urban quality in the suburbs, and empowerment of social housing. The project was defined in 2020 and includes the demolition of the tower and its replacement with about 300 new apartments destined for social housing.

The project also provides 2,000 square meters of services and retail. The demolition of the tower is one of the premises to open the spaces to the neighborhood and citizens. The success of the project will depend on the synergic actions on the environment, architecture, technology, and community since citizens deserve not only decent housing structures but also pleasant living spaces and adequate services.

The objective is to create a neighborhood in connection with the local community to overcome disparities and socioeconomic problems affecting the area.

(Image Source Bresciaoggi, 2021. Retrieved from: https://www.bresciaoggi.it/territori/brescia/iniziata-la-demolizione-della-torre-tintoretto-di-san-polo-1.9045456)

#### Vercelli - Redevelopment of the Sesia riverfront

Vercelli obtained the financing from the Ministry of Sustainable Mobility for three projects of urban redevelopment regarding the historic center and the suburbs along with the modernization of squares, streets, and neighborhoods. The financing is included in the national program PinQua. The resources are €41 million, divided into three expenditure items of, respectively, €15, €15 and €11 million.

The programs of regeneration concern the Sesia riverfront or "Lungosesia", the agricultural territory and the historic center of the city. They are all intended at redeveloping portions of degraded territory through coherent and interrelated measures in order to enhance the quality of life and increase citizens' opportunities. At the same time, they aim at reducing housing deprivation and fostering social inclusion. The Vercelli Sesia riverfront is one of the financed interventions. Andreas Kipar designed the project for the redevelopment of the waterfront, proposing the creation of equipped spaces for retail, spare time, sport, and leisure. Some of the main objectives of the project are to improve the accessibility of the riverfront, valorize biodiversity, and favor the sustainable development of activities and communities located in the area close to the river.

At the same time, the new riverfront is intended to become a new model of mobility for citizens that will travel mainly by walking and cycling, having the opportunity to reach different destinations and activities. In the Kipar project, there is also a general redesign of green urban areas and the proposal for the construction of 5 new parks. For what concerns the historic settlement and the urban center, the project promotes the creation of new pedestrian areas and the encouragement of sustainable mobility, along with the re-functionalizing of the historical-industrial building. The proposed interventions include also the reconversion of the abandoned railway and the transformation of neglected areas into urban parks, as well as landscape connections with the agricultural territory.

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