

Challenges of Recovery  
and Resilience:  
**ArhiBau.hr 2022**  
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**proceedings**

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5th to 8th of October 2022, Arena Zagreb, Croatia

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# The Transformation of the Public Urban Environment in Milan

## From Green Corridors to Tactical Urbanism

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## Introduction

Since introducing the new urban planning instruments in 2012 – *Piano di Governo del Territorio* (PGT) – Milan initiates a new approach to the definition of its urban environment, the services availability, and the redevelopment of the public spaces. The renewal process of a vast part of urban decommissioned or underused portions starts after the PGT introduction, rooted in two main re-development processes that begin at the end of the 2000s, Citylife and Porta Nuova areas. These serve as a model to rethink the urban shaping agenda and experiment with private-public cooperation in generating mutual benefits while operating in the public space. Afterward, many other regeneration processes follow the same model, finding the most significant and still ongoing operation in renewing the decommissioned railyards. These are seven large portions of vacant land surrounding the city of Milan, totaling more than 1.250.000 sqm of unurbanized land (Montedoro, 2018 – Bassoli, 2019). Alongside these large-scale projects, other smaller initiatives at local and neighborhood scales appear (The *Piano Quartieri* and the *Piazze Aperte* program) together with the development of infrastructures for sustainable mobility, such as the new metro line M4 and the redesigning of the cycling path network. During the last decade, the transformation of the public space in Milan faced a stress test in 2020 with the unexpected pandemic events that shook the world. The forced privation of public space use is also an occasion to understand its deep value for urban life and to implement more radical changes.

The private-public cooperation also works as a driver for the architectural development of the city, bringing to Milan some Pritzker-Prize-winning architects to accomplish landmarks buildings, privately owned, but opened to the public for services and cultural purposes, such as the OMA-designed Fondazione Prada Museum, the Herzog & De Meuron designed Fondazione Feltrinelli, and the SANAA designed Bocconi University extension. The recent adoption of an updated version of the City Masterplan (PGT 2030 – adopted in 2019) is the occasion to review the last ten years of urban interventions and to critically question the future goals that the city of Milan has already set or should consider for healthy urban development.

## The 2012 Milan Masterplan

The main change in Milan's urban strategy and planning happens in 2012, with the approval of the so-called 'new' PGT, *Piano di Governo Del Territorio* (the 'new' city Master Plan). The debate over PGT's contents lasts for years, and its approval finally comes after the election of Giuliano Pisapia, the first left-wing mayor in almost two decades. The 'new' PGT is a strategic plan whose main focus, for the first time, is on services, public transportation, open and green areas, sustainability, and the idea of re-use and densification of the existing urban fabric, in opposition to the 'soil consumption' model of expanding cities. In other words, it introduces the general idea of what is commonly known today as urban regeneration. The 'new' PGT is undoubtedly a turning point in the planning and the perception of the public urban environment in Milan. At the same time, its effectiveness, after ten years, in widening the availability of quality services and spaces to all the different citizens' classes is debated due to the solid and increasing gentrification led by the influence of prominent real estate companies in defining the shape of the city (Sevilla-Buitrago, 2022).

One of the most interesting elements of the 'new' PGT is the introduction of the so-called NIL *Nuclei di Identità Locale* (Local Identity Cores), a mapping of 88 areas characterized by what could be defined as 'neighborhood affinities.' The NIL perimeter is much smaller than the administrative division of Milan into nine sub-municipalities: The Core role is meant to identify local problems, specific needs, and the scarcity of quality indicators, such as services, green areas, safety, and schools. The NIL mapping is one of the elements at the base of local development strategies implemented through Tactical Urbanism and 15-minute City approaches, as discussed later, and its role could become more and more significant in the future definition of Milan's urban structure.

Before adopting the new PGT, two private-initiative masterplans were anticipating the upcoming transformation in Milan: Citylife and Porta Nuova areas. Both are located in the Milan center and have similar timelines and characteristics. They start at the beginning

of the 2000s as masterplans, and the construction of the central cores lasts approximately ten years, from 2005 to 2015 (parts of the development are still under construction); they both propose high-rise buildings designed by renowned architects, luxury housing, shops, services, and one big park open to the public.

Citylife project occupies the huge urban void of the decommissioned Milan Trade Fair,<sup>1</sup> while the Porta Nuova masterplan insists on a semi-abandoned part of the city close to the Garibaldi Train Station.

More importantly, influential international real estate companies develop their proposals by introducing a sort of direct negotiation with the public administration. So, for the first time, it is necessary to define the areas' economic value in terms of services, availability of public green, and public benefit coming from the regeneration of urban voids, whose costs are entirely in charge of private investors. The two masterplans introduce the idea of urban regeneration and a dynamic model of urban development, adopting 'positive' propositions like sustainability, accessibility, diversity, and participation. Citylife Masterplan offers a 170.000 sqm park, one public kindergarten, a public art program (in place of the initially proposed Museum of Modern Art), and the renovation of some existing public facilities for sports and events. The Porta Nuova area hosts a 90.000 sqm public park designed by Petra Blaisse and called *Biblioteca degli Alberi* (The Trees Library) and the very popular *Bosco Verticale* (Vertical Forest) designed by Stefano Boeri with Barreca and La Varra, also showing fancy and captivating attention to names and 'green branding' (Bruzzese and Tamini, 2014).

The two operations undergo a strong acceleration after 2012, whose explicit objective is to be accomplished just in time for the Expo2015 opening.

The Expo2015 goal is, in fact, another critical element in Milan's recent development of the urban environment. The big event happens at a crucial time when the new PGT is approved and operative, unlocking many private interventions that were 'compressed' in the previous years (such as the abovementioned Fondazione Prada in 2015 and Fondazione Feltrinelli in 2016) and the City Council receives significant funds to renovate the city's

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<sup>1</sup> This equipment was located outside Milan's city center, <https://www.fieramilano.it/en/spazi.html>, in a new site designed by

Massimiliano Fuksas and mainly funded by the provents of selling the lands owned in the city center area.

infrastructure and services. Although it is not possible to say if Expo2015 had a role in the increased international popularity of Milan (Lizzeri, 2019), there is evidence that it polarized a collective effort to renovate the city's image, catalyzing a 'Community Pride,' which output is directly related to the increase of citizens' 'Quality of Life' (Magno and Dossena, 2020).

## Public Spaces and Green Areas

Since the introduction of Citylife and Porta Nuova Masterplan, it becomes clear that these two real estate developments are pivotal in spreading a new idea of urban renewal focused on the availability of high-quality public green areas as a form of mutual benefit for citizens and real estate operators.

The roots of this renovated centrality of urban greenery can be dated to 2005 when the Milan-based firm LAND releases a strategic document called *Raggi Verdi* (Green Rays) (Kipar and Sala, 2009). This 'green plan' is later introduced in the Milan PGT 2012 masterplan and consists of an eco-systemic view of the green corridors in Milan, imagining the construction of a network of green areas that can join together existing parks and greenways using main axes and urban voids to build the missing pieces of an urban green puzzle (Fabris et al., 2019). The plan identifies eight main axes, displaced in a radial array and connecting the city center to Milan's outskirts, following the concentric urban structure of Milan. These axes pass through existing parks and big empty plots, helping to individuate key areas for the future shaping of the city.

The Green Rays masterplan is also part of the 'Green River' vision proposed by Stefano Boeri Architetti<sup>2</sup> to reuse Milanese decommissioned railyards, which are crucial areas for the upcoming Milan's regeneration, already identified as structural elements in the Green Rays Masterplan.

Seven huge areas devoted to commercial railyards are disseminated across Milan. They are now decommissioned and represent the primary source of empty land inside

Milan's inner circle. The long and complex procedure to define the rules of their development starts in 2005 and comes to an end in 2017 with the public agreement between the City Council and the owner of the seven areas, FS Sistemi Urbani, a branch of the Italian national railway company RFI (Comune di Milano, 2017). One of the key aspects of the agreement, among others, is to dedicate at least 65% of the total railyard surface (1.250.000 sqm) to the realization of green public spaces and promote participatory and competitive procedure to sell the areas in the real estate market through public tenders that require economic offers associated with design proposals.

In 2016, during the debate between Milan's City Council and the owner of the railyards, the City Council and the FS Sistemi Urbani invite five international offices to propose five visionary masterplans (one of them is the Boeri's Green River) to be discussed during a participative workshop open to citizens and associations, to have a common, shared, and scientific ground for fine-tuning the public agreement. After that, the procedure to award the area to private consortiums through tenders and design competitions starts. The first areas going through this procedure are the Farini and Ronchetto railyards, followed by the Porta Romana railyard, which will partially be the site of the Olympic Village during the 2026 Milano-Cortina Winter Olympics.

Another railyard, the *Scalo Greco*, is awarded in 2019 to a real estate cooperative; Barreca-Lavarra Office designs the winning proposal. It will become the first zero-emission social housing development in Italy. The area is awarded through the C40 Reinventing Cities competition alongside four other public properties (buildings and lands). Milan has chosen since 2019 to participate in Reinventing Cities, a global competition whose purpose is to accelerate the development of decarbonized and resilient urban regeneration, promoting public-private cooperation and setting minimum social and ecological requirements in public tenders and competitions.

The effort to retrieve areas dedicated to implementing greenery is then functional to another public initiative launched in 2018, named ForestaMI (Forests for Milan)

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<sup>2</sup> Stefano Boeri Architetti (2016) Un Fiume Verde per Milano [online]. Available at: <https://www.stefano-boeri-architetti.net/project/un-fiume-verde-per-milano/> [Accessed: 28 October 2022].



(ForestaMI, 2020). It is a strategic program developed by Milan Metropolitan City Council whose objective is, in short, to plant 3.000.000 new trees in the metropolitan area by 2030. The benefits of growing trees will be studied during the implementation process in terms of CO2 and polluting absorption and decrease of ground-level temperature, trying to reach at least a 20% share of urban surface covered by tree canopy.

According to this variety of urban development initiatives, it is possible to identify a precise and interconnected strategy that mixes and joins different instruments and opportunities in a circular process, where every single element is at the same activated and actuator in non-linear procedures of city-shaping.

## Tactical Urbanism and the Pandemic

Alongside these big masterplans, the City Council launches other initiatives at the neighborhood scale, according to the attention to local identities detectable since the introduction of the NIL mapping. In 2018, the City Council initiates the *Piano Quartieri* (Neighborhoods Plan), an annual program that defines and finances urban interventions to solve some of the issues underlined by the NIL mapping. This plan includes the *Piazze Aperte* (Open Squares) program (Comune di Milano, 2019), which will be an essential part of Milan's urban response to the Covid-19 Pandemic. This plan consists of an urban project developed with the support of Global Designing Cities Initiatives & NACTO that aims to recover and create new public spaces by adopting Tactical Urbanism tools. Tactical Urbanism is a planning strategy that allows fast implementation and low-budget interventions that modify public spaces by re-organizing vehicular traffic and parking spaces, using temporary and movable urban furniture and ground paintings (Global Designing Cities Initiatives & NACTO, 2016).

The first built example of the method is Piazza Dergano, a public space in the northern periphery of Milan, occupied by cars and redundant traffic junctions. In 2018 the Piazza assists the removal of vehicular traffic by using paintings

and movable urban furniture. Piazza Dergano is also the first Tactical Urbanism experiment that sees the conversion to a permanent solution in 2021; the permanent setting is, in fact, the final objective of the Tactical Urbanism method: acting first with fast and cheap solutions, studying and analyzing the results, and later convert them into more traditional permanent public spaces. A second experiment follows during the same year, with the pedestrianization of part of Piazzale Corvetto, in the southeast of Milan. After these first two interventions, 14 more followed in 2019.

When the program's third edition is almost ready to launch a public call for ideas in 2020, the Covid-19 Pandemic happens. It is a shock for the entire world, and we are still coping with its social and economic consequences. Still, from the urban point of view, it is also a very effective indicator of how crucial it is the possibility to experience accessibility to public space and how it is missed when the citizens are deprived of it. During the pandemic, we assist many protests that occupy public space, like the non-violent protest of the entertainment industry workers who left their crates perfectly aligned in Duomo square, generating a compelling, almost artistic image<sup>3</sup>

The Pandemic is also an occasion, thanks to the unprecedented situation of the complete emptiness of the public space. Using the already tested Tactical Urbanism tools, it is possible to experiment and implement fast solutions to increase cycling mobility and pedestrian public space.

Following this consideration, the City Council acts very fast. In the spring of 2020, it launches two main programs: the first one is the *Strade Aperte* program (Open Streets) (Comune di Milano, 2020), whose goal is to fast apply the 15-minute City concept by using Tactical Urbanism instruments to create new public open spaces and cycling paths. It anticipates the so-called 'Dehors Table Act' whose approval follows some weeks later. This urban rule provides easy procedures for bar and restaurant owners to occupy public spaces and install open-air tables. The law allows the installation of outdoor facilities, even subtracting areas from roads and parking.

<sup>3</sup> Robertiello, F. (2020) 'La protesta dei lavoratori dello spettacolo a Milano: 500 bauli schierati in piazza Duomo', La Repubblica, 10th October.

In late 2021, *Piazze Aperte* and *Strade Aperte* spread across Milan with 67 km of new cycling paths, and since 2018, the subtraction of redundant vehicular space generates 38 new or enhanced pedestrian squares (Maran, 2022), showing a practical and effective way to modify the public space. Some doubt still exists about the relevance of this kind of intervention, sometimes judged too small and poorly financed to be more than just a cosmetic intervention (Sevilla-Buitrago, 2022, p-216), not counting the complaints of the right-wing opposition parties, traditionally more oriented to remove limits to the use of private cars.

## Post-pandemic and the 2030 goals

Even if the near future of Milan in the Post-Pandemic period will see the continuation of these neighborhood-scale, Tactical Urbanism, and participatory interventions, from a quantitative point of view, it is possible to make two considerations. Out of 129 million in extra funding received by Milan from the National Government to compensate big cities penalized by the distribution criteria of the PNRR (The National Recovery and Resilience plan), only one million is going to finance the *Piazze Aperte* program<sup>4</sup>.

Secondly, compared to the total number, size, and the many different typologies of public spaces in Milan's metropolitan area (Quinzii & Terna, 2021), the *Piazze Aperte* and *Strade Aperte* initiatives cover a minimal surface.

On the other hand, there are some indicators that the public space, the quality of life, and social equity are central elements in the City Council's intentions for the future of Milan. The PNRR funds, for instance, meant to repair damages caused by the pandemic crisis, will be dedicated to various initiatives to address the structural weaknesses of the urban environment and promote a path of ecological and environmental transition, such as

<sup>4</sup> Comune di Milano (2022) A Milano 129 milioni di euro dal Governo per rafforzare gli interventi del PNRR [online] Found at: <https://www.comune.milano.it/-/palazzo-marino.-a-milano-129-milioni-di-euro-dal-governo-per-rafforzare-gli-interventi-del-pnrr> [Accessed: 28 October 2022].

the upgrade of the public transportation system and cycling path network, the strengthening of educational and cultural buildings, and the support to social groups in extreme poverty conditions.

The centrality of public spaces for the future healthy development of Milan is also evidenced by the research commissioned by the Milan Administration through the Urban Center Office, which granted the Milanese architecture office Quinzii Terna for a study whose output is a massive atlas mapping all the public space availability in Milan. The goal is to know the state of the art of open, public, and green surfaces, to identify weaknesses and potentialities, and define future strategies.

It is also a fact that the quality of life in Milan rose, according to the measure of different indicators. For the first time in 30 years, in 2019, the city of Milan appears at the top of the *Il Sole 24 Ore* (the most influential Italian economics editor) annual ranking for the quality of life among Italian cities, which mixes different socio-economic parameters<sup>5</sup>. At the same time, Milan becomes the most expensive city in Italy, and it started appearing in many other cost-of-living indexes, suggesting that, without proper measures, it will begin in the near future to increase social inequities and the disparity between areas with substantial differences in market-values.

In 2019 the new 2030 PGT is approved and adopted, introducing some changes that are going in the direction of facing the environmental and social challenges that emerged in the last years and grew during the post-pandemic phase. The most interesting aspects, among others, can be summarized as follows.

### Environment and Climate Change

- Realization of Carbon Neutral buildings
- In the case of a building substitution, a reduced ground occupation by at least 10% of the existing building is mandatory.
- Individuating areas and promoting the private operations of de-sealing and urban forestation.

<sup>5</sup> *Il Sole 24 Ore* (2019) Qualità della vita 2019 [online] Found at: [https://lab24.ilsole24ore.com/qualita-della-vita-2019/?refresh\\_ce=1](https://lab24.ilsole24ore.com/qualita-della-vita-2019/?refresh_ce=1) [Accessed: 28 October 2022].

- Use of 100% of resources coming from environmental monetization to implement new parks and the ForestaMi program.

#### Peripheral Areas and Neighborhoods

- 50% of Municipality income from urban regeneration operations in the central area must be invested in peripheral areas.
- Facilitating the change of use from productive to residential functions in the city outskirts and regeneration areas.
- 18 months time limit for the owners of abandoned buildings to reuse or demolish them or facing the loss of edificatory rights.<sup>6</sup>
- Mapping of 7 squares and 13 points of interchange to be regenerated and contribute to the connection between the city center and the outer metropolitan areas.

#### Affordable Housing:

- The requirement of the social housing share for new residential buildings is increased from 35% to 40%.<sup>7</sup>
- Close to public transportation knots (250-500 meters distance), it is possible to overcome the volumetric limit of 1smq/1sqm if all the exceeding share is dedicated to social housing for rent.
- The realization of social and public housing in 9 areas of regeneration, building 1.300 new units alongside other 6.200 units already planned for the Railyards regeneration masterplans.

## Conclusions

The 2012 PGT may be a cornerstone for urban regeneration policies in Milan as it institutionalizes some trends (dire quali trend) that occurred after the mid-2000s. Key points of the plan are the densification and reuse of the existing, the creation of public services, and the increase of public green surfaces.

The urban regeneration process is still advancing with the future development of vast underused or decommissioned plots inside the metropolitan area, and the benefits of

recovering urban voids through private-public cooperation are tangible and measured by Life Quality indicators.

Although the Covid-19 pandemic represents a shock for the world and has devastating social and economical aspects, on the other hand, it worked as an accelerator of ongoing processes of urban transformation of the public realm (green areas, low carbon emission objectives, infrastructures for slow mobility). All this contributes to increasing the awareness of how crucial the role of public space is for the well-being of urban areas.

The new 2030 PGT, adopted in 2019, pushes the same agenda, but it adds some new programmatic points whose objective is to keep the city accessible and livable by all the different components of our society: Environment and Climate Change, Peripheral Areas and Neighborhoods, Affordable Housing are key points. In fact, they show at least an awareness of the two main challenges for the near future. Firstly, the adoption of all needed measures to decrease the environmental impact of urban areas and secondly the mitigation of gentrification phenomena that are leading the city of Milan to become more exclusive, expensive, and economically unequal, pushing out the low-income population groups.

Since 2012 Milan constantly assists important enhancements in the quality, availability, and variety of public areas, services, and cultural activities. Despite that and despite the aims to improve citizens' and city users' life at all levels, a limit seems to be increasingly evident: when the shaping of the public domain is in control of private subjects, disparities seem to rise. Higher levels of social exclusivity could lead to considering Milan as 'Italy's most unequal metropolitan area and one of the most economically polarized of Europe despite its wealth' (Sevilla-Buitrago, 2022, p.176).

<sup>6</sup> The rule is going under a legal dispute between Milan Municipality and Regione Lombardia, whose rules are awarding volumetric incentives to the owners of abandoned buildings in case of reuse.

<sup>7</sup> This share can be subject to monetization, if not provided.



**Fig. 1.** The public space alongside the new Feltrinelli Foundation headquarters. 2021. © Riccardo M. Balzarotti.

**Fig. 2.** The Biblioteca Degli Alberi and the Bosco Verticale in the Porta Nuova Area. 2021. © Riccardo M. Balzarotti.





**Fig. 3.** The Porta Romana railyard, with the Fondazione Prada tower in the background. 2019. © Riccardo M. Balzarotti.



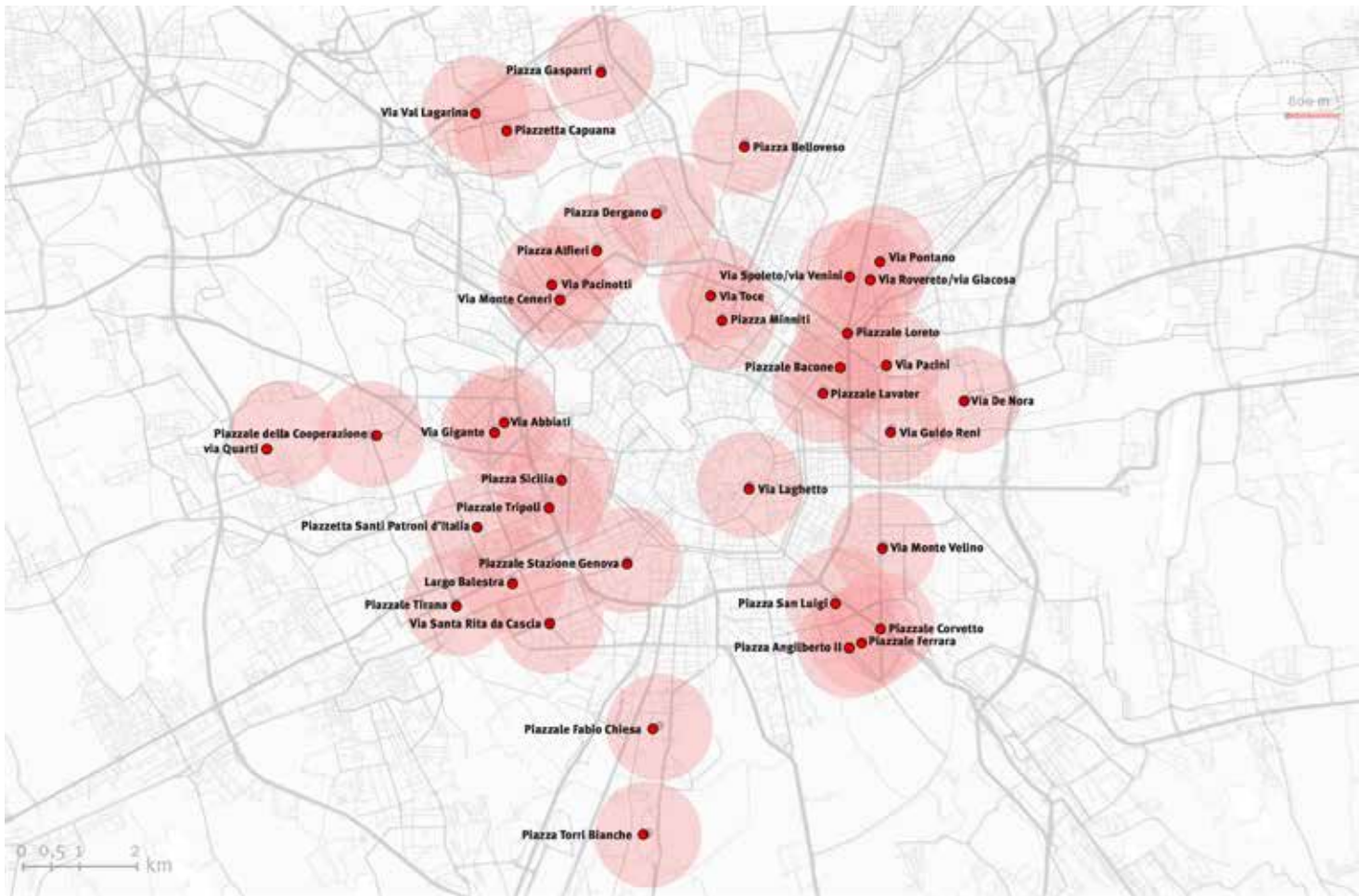
**Fig. 4.** A new piazza replaces a road junction in via Spoleto using Tactical Urbanism. 2020. © Riccardo M. Balzarotti.

**Fig. 4.a** The via Spoleto junction before the tactical urbanism intervention. 2015. © Courtesy of Comune di Milano.

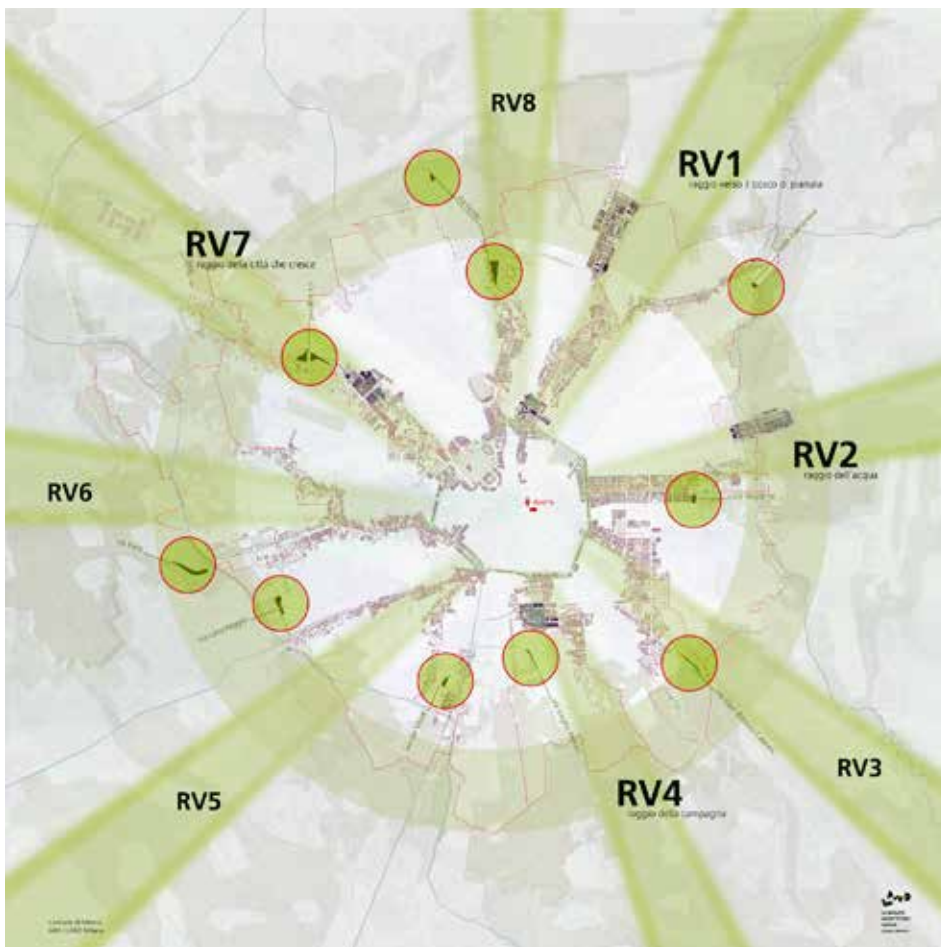


**Fig. 5.** The final and permanent setting of Pizzale Dergano. 2022. © Riccardo M. Balzarotti.





**Fig. 6.** The map of the planned tactical urbanism interventions by the end of 2023 and their 800m area of influence. 2021. © Courtesy of Comune di Milano.



**Fig. 7.** The Green Rays keymap, part of the 2012 Milan city Masterplan. 2008. © Courtesy of LAND and Comune di Milano.

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## Abstract

Since introducing the new urban planning instruments in 2012 – *Piano del Governo del Territorio* (PGT) – Milan has commenced a new approach to the definition of its urban environment, the services availability, and the redevelopment of the public spaces. The PGT aims to improve citizens' and city users' life quality by implementing various tools addressing the contemporary urban agenda's ecological, mobility, and cultural challenges. In particular, Milan is trying to align with the global metropolitan vision of the 15-minute City concept and to cope with this objective by applying traditional tools (long-term planning process) and smart city strategies (tactical urbanism).

In a context of an emerging global ecological and socio-economic crisis driven by the pandemic and the war, this paper aims to evaluate the PGT ten years after its introduction by interrogating how public spaces have changed in quantitative and qualitative terms and the perspective for 2030 goals introduced by the PGT update in 2020.

Green corridors and tactical urbanism plans may be an interpretative key to illustrate elements of success, weakness, and threats for the future development of the metropolitan city.

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