Comune di Milano

AGENZIA MOBILITÀ AMBIENTE TERRITORIO

Milan 2020. Adaptation strategy

Open Streets

Strategies, actions and tools for cycling and walking, ensuring distancing measures within theurban travel and towards a sustainable mobility

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Adapting the city to social distancing measures

The pandemic changed our habits, challenged our lifestyles, disrupted our daily priorities and limited freedoms that seemed unquestionable. Among the things we are missing the most in our cities during the lockdown, one in particular remains a universal essential need: **moving around.**

Although not immediate, the gradual reopening of the city is getting closer and closer. We will soon be able to **move around again** and **integrate physical activity** into our daily routines. Thus, it is more and more urgent to find solutions to adapt the city - particularly infrastructure and public spaces - to the new social distancing measures needed to coexist with the virus.

This is a seemingly obvious, but unprecedented issue. Compliance with such measures will not be easy, especially when it comes to managing people's movements in densely populated cities like Milan. But in the coming months, **mobility will have to change** in an effort to find a new balance that manages the movements of people and ensures their protection from the risk of infection.

In this scenario, while the use of public transport is likely to be shrink significantly due to the restricting measures in place , car travel could be considered a safer solution, leading to a progressive increase in traffic, which would be unsustainable for our cities in terms of congestion (especially during peak hours); levels of CO2, NOx, particulate matter and greenhouse gas emissions; moreover, increased traffic would have a negative impact for logistical reasons, given the limited availability of parking spaces, for instance.

Therefore, there's an immediate need to consider and act on **the reduced demand for mobility and the supply of alternatives.** We must look for a new balance which allows citizens to make effective, safe and sustainable mobility choices in response both to the new emergency and to existing urban challenges.
If, on the one hand, it will be necessary to guarantee some types of private transport means (e.g. extra-urban transfers, particularly of goods and freight), or for those who need them (such as people with disabilities), on the other hand it will be crucial to create the conditions to compensate for the reduction in public transport services, especially for people who do not have alternatives: cutting down on travel, promoting remote work, changing the city's schedule, reducing distances, enhancing the neighborhood dimension and encouraging shorter journeys.

In order to diversify the mobility offer, finding alternative, healthier solutions to support collective transport will be necessary over the coming months.
If the idea of encouraging walking and cycling was valuable in 'normal' times, it becomes even more important and strategic during the upcoming “new normal” phase. The best way to move around and integrate physical activity in the city will also be the easiest: **walking and cycling.**
Walking is an essential need, as well as the simplest and most natural way of moving around, especially over short distances. And at this stage, experts see cycling as the safest alternative to public transport. Some questions arise:

- Can we **encourage the use of active mobility** for everyday journeys through the development of a dedicated network for cyclists and pedestrians?
- How can we facilitate compliance **with the safety measures** of social distancing on narrow, often uneven sidewalks that are sometimes taken over by cars?
- Can the health crisis be an opportunity to rethink and reorganize **the streets as public spaces on a human scale** and at the center of neighborhood life?

An unprecedented opportunity

We missed exercise. The weather is perfect. The air is cleaner. With fewer cars on the road, walking and cycling is safer. If not now, when?

Corso Buenos Aires. Photo by Andrea Cerchi

Even during challenging times like the past few months, photos of a city with no cars have us recall the charm of a slow city at a more human scale and remind us of the daily negative impact of traffic on the well-being of both people and the environment especially in terms of air pollution and noise.

As the Milan 2020 Adaptation Strategy foresees, the current health crisis can be an opportunity to decide to give **more space to people** and **improve the environmental conditions** in the city, increasing more sustainable, non-polluting, means of travel and **redefining the use of streets and public spaces** for commercial, recreational, cultural, and sport purposes, while respecting physical distance requirements.

The time is right for at least three reasons:

1. The *lockdown* has caused a **substantial reduction in urban traffic** (the congestion index has seen a reduction ranging from 30 to 75%), which is rather rare. This makes it possible to experiment and intervene effectively on the streets before they return to full capacity, thus minimizing traffic disruptions.

2. The current temporary emergency forces us to **identify light, cost-effective, fast and reversible alternatives,** which, if effective, could eventually be made permanent, thus speeding up the already planned environmental transition to more sustainable modes of transportation.

3. Actions required to manage the health emergency take on a more urgent aspect, and **encounter less resistance to change.**

International examples

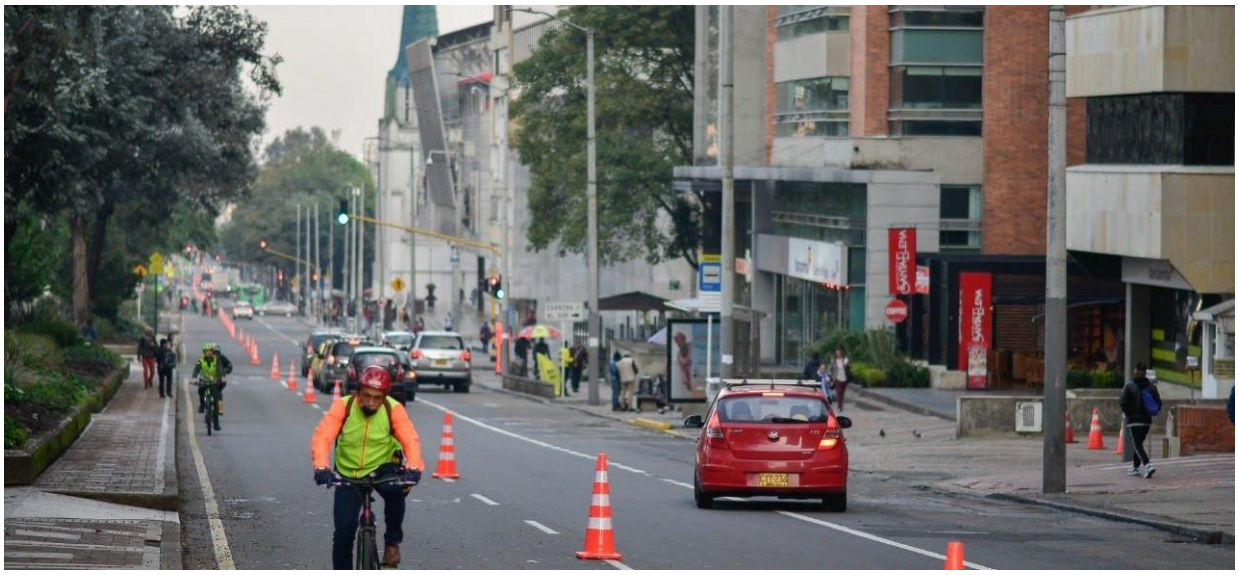
In 1973, another global crisis, the energy crisis, triggered a transport revolution.
*In the **Netherlands**, the government launched a mass program to build bike lanes.*
Today, 30% of national travel is by bike.

International examples of inspiration are not lacking at this stage:

- **Berlin** immediately set a plan in motion to expand existing cycle paths or create new ones in an effort to compensate for the reduced public transport service.
- The city of **Oakland**, California is converting 74 miles of urban streets (nearly 120 kilometers) to pedestrian and cyclist traffic with the recent "Slow Streets" initiative, limiting streets to local traffic only.
- The **New Zealand government** has announced funding for tactical urbanism interventions to be implemented quickly to create temporary cycle lanes and expand existing pedestrian routes in order to ensure compliance with social distancing measures.

Similar measures were put in place throughout Europe even before the emergency:

- In **Barcelona**, the 'Superilles' project (also known as Superblocks) is working on expanding pedestrian streets by restricting automobile access.
- In **Paris**, Anne Hidalgo announced the proposal for a 100% bicycle-friendly city by the end of the 2024 in support of a more human-centric city where anyone can reach the essential goods and services in less than 15 minutes.



Cycling is one of the safest ways to travel while preventing the virus spread, especially at this stage when it is recommended to avoid contact and gatherings.

Expansion of signposted cycle lanes in Berlin during the Covid-19 emergency.

In Barcelona, the 'Superilles' project identified macro-blocks with pedestrian potential, and limited vehicular traffic to certain routes only.

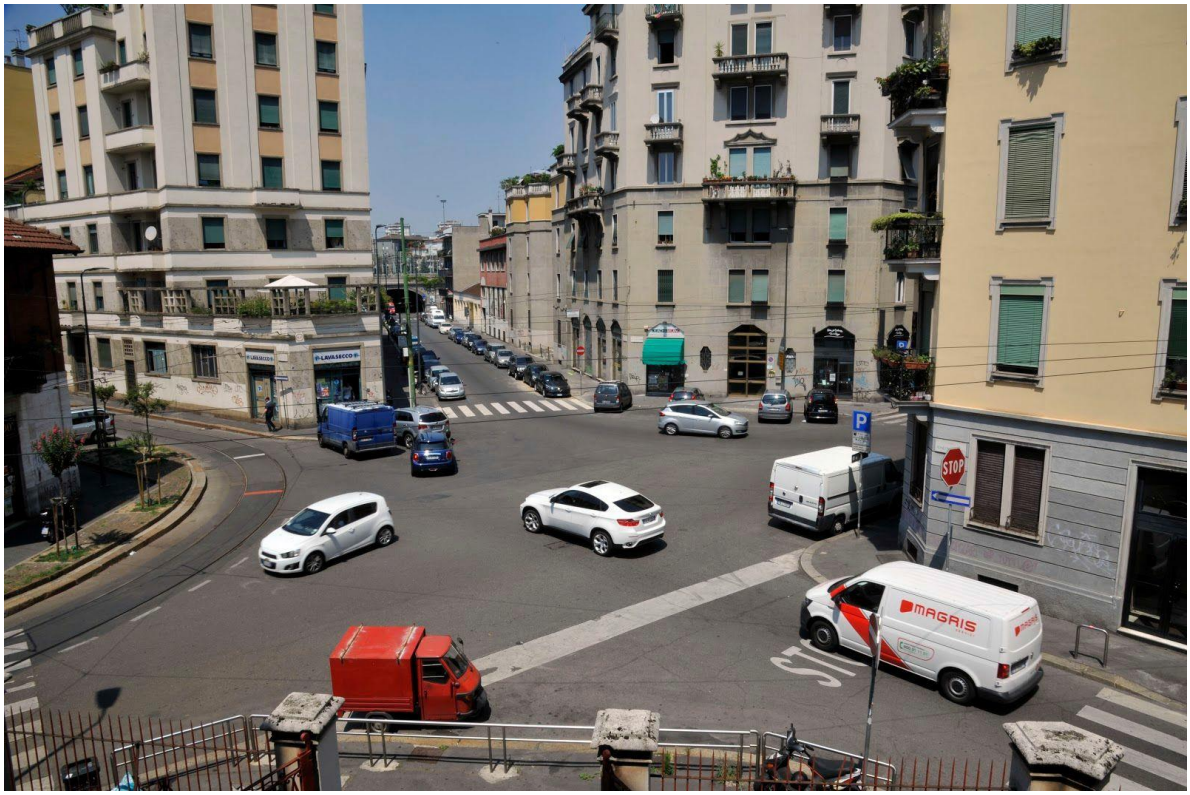
Solutions already tested in Milan

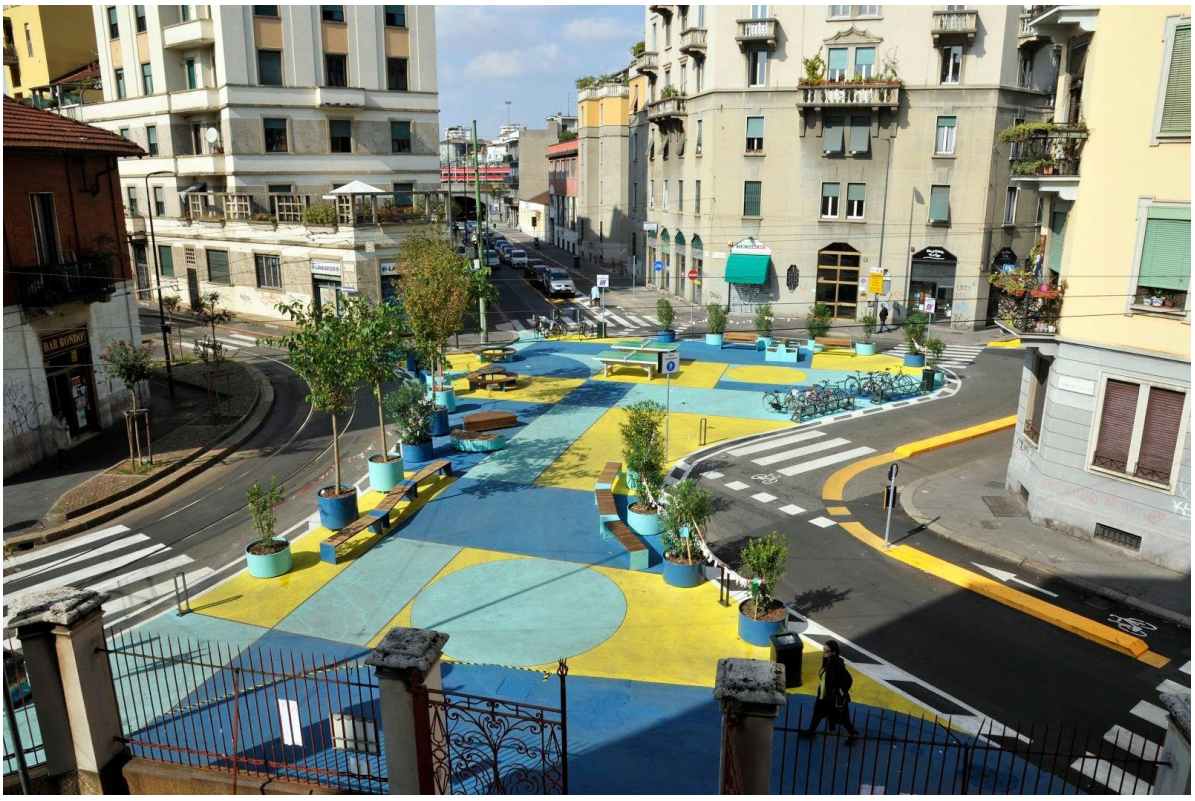
Since September 2018, Milan's "Piazze Aperte" project, sponsored by the Municipality of Milan in collaboration with Bloomberg Associates, National Association of City Transportation Official (NACTO) e Global Designing Cities Initiatives, has been experimenting with tactical urbanism to create new public spaces out of redundant roads and intersections through a series of experimental temporary, fast and cost-effective projects. The temporary nature of these project allows for a rapid and reversible solution testing, before investing time and resources in a definitive structural arrangement, anticipating the impacts with immediate benefits and supporting the decision-making process towards a permanent solution.

This experience has made it possible to develop new skills and experiment with new tools to intervene on our public spaces. Among the "soft" projects launched across the city neighborhoods, the program has promoted pedestrianization projects across the city, designed to open up public space, widened sidewalks and created interim bike lanes protected by on-street parking spaces or bollards.

At the end of 2019, the public notice "Open Squares in every neighborhood" open to the collaboration of all citizens, resulted in the submission of 65 new proposals which are currently being co-designed.

Milan: "Piazze Aperte". A cycle lane Contraflow, delimitated by a bollard, in Via Martiri Oscuri.





"Piazze Aperte", before and after the tactical urban planning intervention in Nolo (Via Spoleto, Via Venini)

Strategies for improved cycling and walking infrastructure

Cycling as a key factor towards a sustainable mobility

With regard to the mobility issue, the Milan 2020 adaptation strategy plans to rethink the city's schedules and rhythms in order to reduce and distribute the demand for travel throughout the day, and aims to **further improve and diversify the mobility offer**, implementing and exploiting the full potential of public transport and rapid mass transport infrastructures such as metros and LRT, while promoting the use of a sustainable and active mobility and shared means of transportation.

It is necessary to redefine the use of roads and public spaces and increase the use of non-polluting means of transportation (walking, cycling, soft mobility).
Milan 2020. Adaptation strategy.

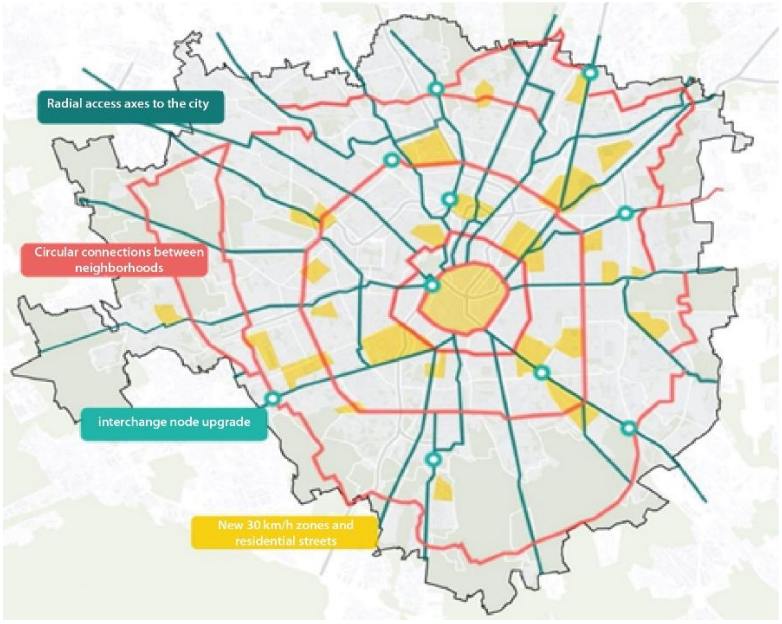
At this stage, **timely action is needed** to provide an alternative to driving in response to citizens' mobility needs, while safely complying with distancing measures on public transport, by encouraging active mobility as an alternative or supplement to urban and regional travels.

The crisis is therefore an opportunity to **make a decisive leap towards the widespread use of traditional pedal and powered bikes**, scooters and all other forms of micro mobility, which effectively provide the necessary distance to prevent new infections. Although the use of these means of transportation has grown significantly in recent years, we are still far from exploiting the full potential they can have in transforming the mobility of our cities. We therefore need to identify **urgent actions** that will enable citizens to move around safely as early as the next few months and continuing through the fall, as most commercial, manufacturing and cultural activities resume and schools and universities reopen.

Construction works for the new cycle lane on Corso Venezia (04/30/2020)

Special plan for new emergency cycle lanes

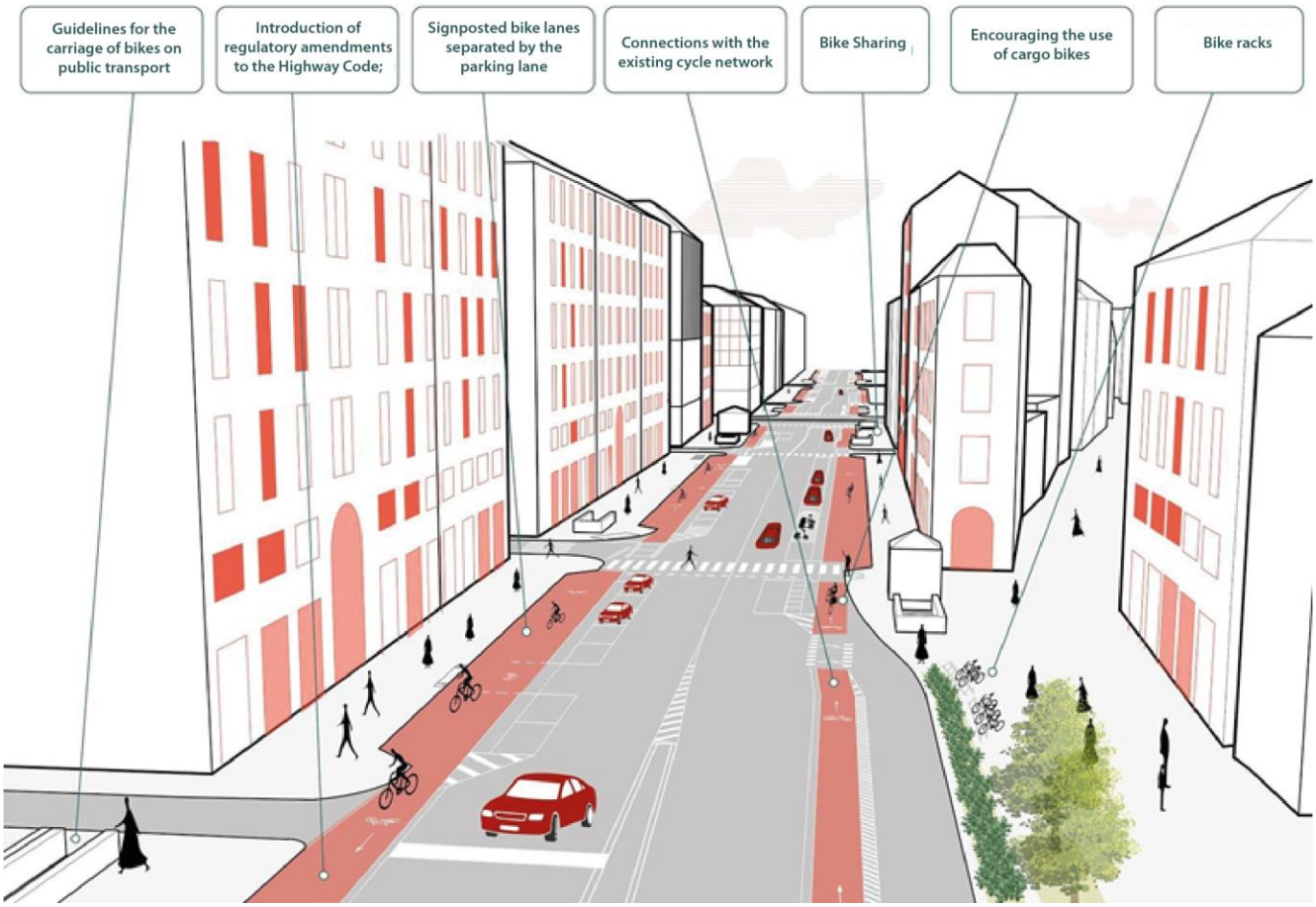
The planned actions are consistent with what was already foreseen in the **Sustainable Urban Mobility Plan (PUMS)** approved in December 2018: in order to promote an effective active mobility, the plan will include a system of cycle paths (supporting frame), both radial to connect with the city's districts which are further away from the center and with the municipalities of the metropolitan city, and circular and transversal to encourage systematic travel between the different urban centers. The main routes will be integrated with widespread cycling paths and moderate traffic areas (30 km/h zones) for a safe and livable mobility within the neighborhood.



Cycle network planned by the City of Milan's PUMS

During this emergency, it has become even more important to connect the city's districts with the metropolitan city: **the new cycle routes** will enhance the existing connections between rapid mass public transport (rail and metro networks) and the city area, in order to offer everyone an alternative mode of transport to work. The goal is to significantly expand and better connect the existing cycle network with the construction, from May through December 2020, of about **35 km of new cycle lanes**, of which over 22 km to be completed by summer. This project will be in addition to the planned works aimed at upgrading the Milan cycle network that will be carried out in 2020 and 2021.

Moreover, the project is meant to complement the "Città 30" strategy foreseen by the PUMS, which involves the expansion of 30 km/h zones, particularly along the ring road. Most of **the new 30 km/h zones will be implemented** through sign-posting only, while the rest will involve structural elements for speed control and road safety, and the extension of pedestrian and green spaces. The cycle network will connect new and existing 30 km/h zones and will use signposted cycle lanes with more linear routes and/or simply indicated along 30 km/h zones or roads shared with other vehicles.



The new cycle path along Corso Buenos Aires.

Services and inter-modality

Promoting active mobility can rely not only on the realization of new routes, but also on the implementation of services and other infrastructures.

Interchange and inter-modality

- Synergy between public transport, especially rapid mass transit, and bike-sharing services, through integrated subscription solutions using "mobility as a service".
- Presence of bike-sharing at interchange stations.
- Policies for bike transport on public transport.
- Increased parking facilities for bicycles, with more bike racks and bays across the city and in the city's main areas.
- Expansion of the bike-sharing system, with both pedal and electric bikes.

Security

- Creation of a bicycle logbook for the theft prevention.

Communication

- Clear communication of the code of conduct to be adopted for emergency mobility.
- Regular talks with stakeholders, through the Cycling Table.
- Use of signposting along cycling routes and creation of Milan Cycle Network App.

Incentives

- Reward programs for regular users.
- Discounts for the purchase of pedal, electric, cargo or folding bikes.
- Involvement of Mobility Managers in the implementation of incentive policies in corporate contexts.

Logistics

- Promoting of the use of cargo bikes for deliveries, including sharing services.
- Regulating the use of motor vehicles for business supply delivery, limiting it to night-time only.

Trials and Highway Code

- Measures to obtain rapid regulatory changes on the Highway Code and cycling regulations, through amendments to be included in urgent and emergency decrees.
- Carrying out trials, in agreement with the national administration, aimed at rapidly implementing the new routes.

Data monitoring

- Monitoring the effectiveness of the interventions, their compliance of the appropriate social distancing requirements, and keeping track of any changes based on data collected (accidents, bike use, trade, home-school commute, etc.).

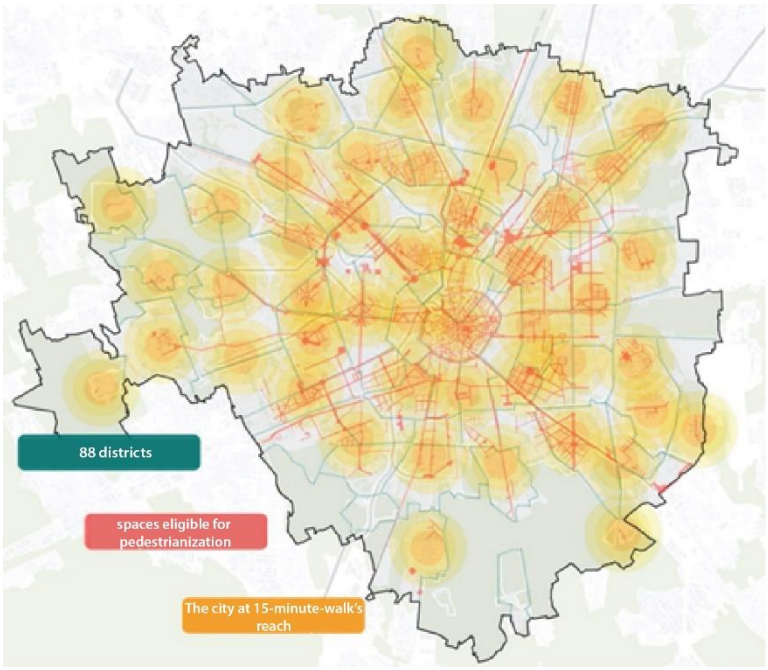
Walking at the heart of urban life

In order to adapt to urban life during the 'new normal' phase, it's essential to encourage walking in order to ease the strain on local public transport and to allow outdoor activities while respecting distancing measures, providing more space on sidewalks and creating new pedestrian and shared areas, guaranteeing the safety of pedestrians and identifying protected routes for more vulnerable individuals, promoting new ways of understanding public space and socialization.

It is necessary to redefine the use of roads and public spaces and develop areas that allow commercial, recreational, cultural, sporting uses, in respect of physical (but not social!) distancing requirements.
Milan 2020. Adaptation strategy

The Milan 2030 Territory Management Plan (PGT) identifies a network of potential pedestrian areas for traffic control and urban care interventions, that could contribute to an improved quality of life, both from an environmental and social point of view. The network is conceived as the backbone of collective urban life, at the center of the neighborhoods, with the aim of attracting small businesses, art and craft activities, and the connection of socio-cultural and community services.

Coherently, in this moment of emergency, the main interventions will be focused within and in connection with the individual neighborhoods, with the goal of guaranteeing better access to essential services, reopening restaurants and resuming other commercial activities, expanding outdoor areas for exercise and cultural/sports activities in a safe environment.



The expanded pedestrian network, as projected by the Milan 2030 PGT

Towards “Città 30” (30 km/h city)

The "Città 30" provides for a 30 km/h speed limit for about 60% of the whole urban road network, replacing the current 50 km/h speed limit foreseen by the Highway Code in all residential areas.

Speed moderation brings significant benefits in terms of quality of **urban spaces**, increased **safety** and accident reduction, reduced dust and **emissions** caused by traffic.

Building a "Città 30" means:

- revisiting the functional classification of the road network, restoring the appropriate function to commercial and residential streets, reducing **traffic** and increasing **livability**;
- identifying "Environmental Islands" (**30 km/h zones)** in the city's main sites, reinforcing speed moderation measures, enhancing traffic control , redesigning public space and landscaping, in response to the **potential increased demand for active mobility**.

The aim is to take this long-term objective a step forward in this emergency phase, identifying a considerable number of new areas of intervention for immediate action to reduce the speed limit, including the creation of **residential areas** and roads where pedestrians and cyclists are given priority.

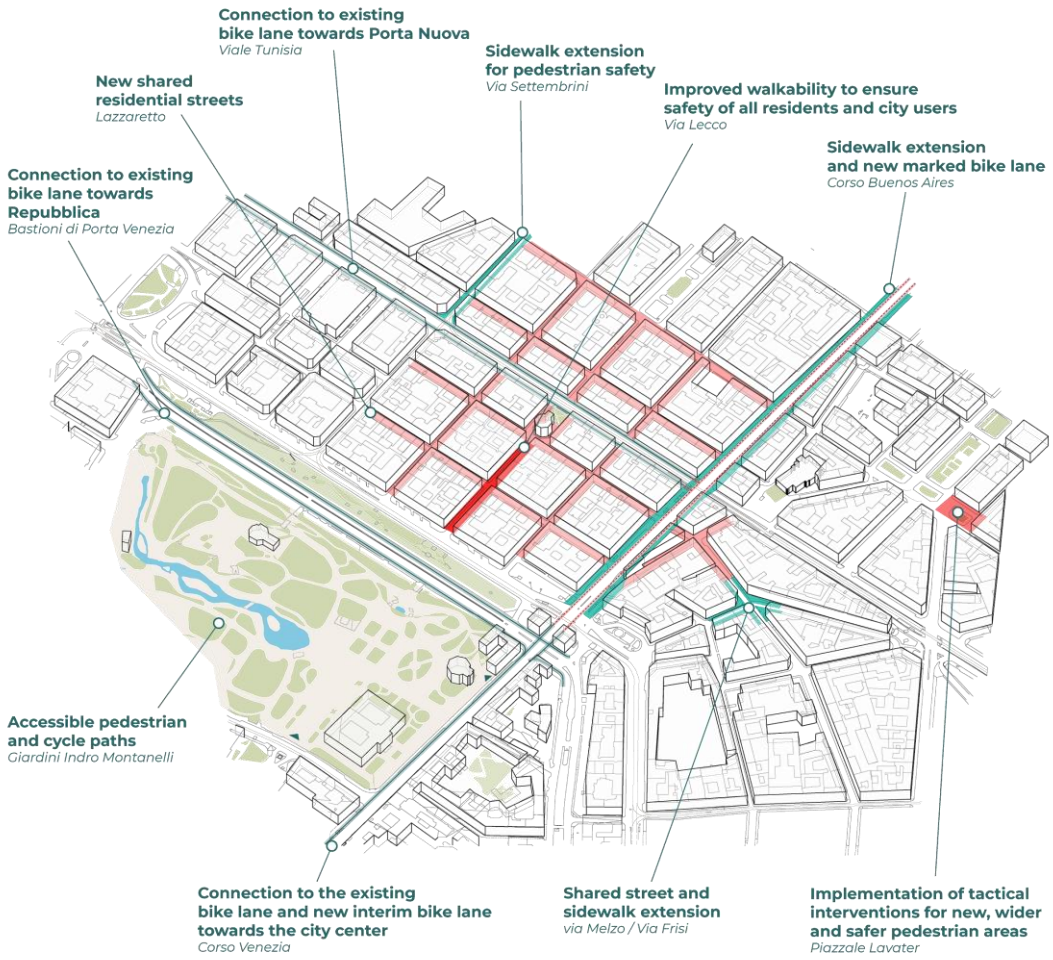
Green TrentaMi: a 30 km/h zone experiment in Milan, Via Rovereto.

Enhancing public space in neighborhoods

On a neighborhood scale, intervention strategies can be implemented in an integrative way, adapting the infrastructure, even temporarily, to promote **walking and cycling**, encourage a return to social life and access to local services, reinforcing the neighborhood dimension.

It is important to rediscover the neighborhood dimension (the city within 15-minutes walking distance), making sure that every citizen has access to almost all services within that distance. Milan 2020. Adaptation strategy

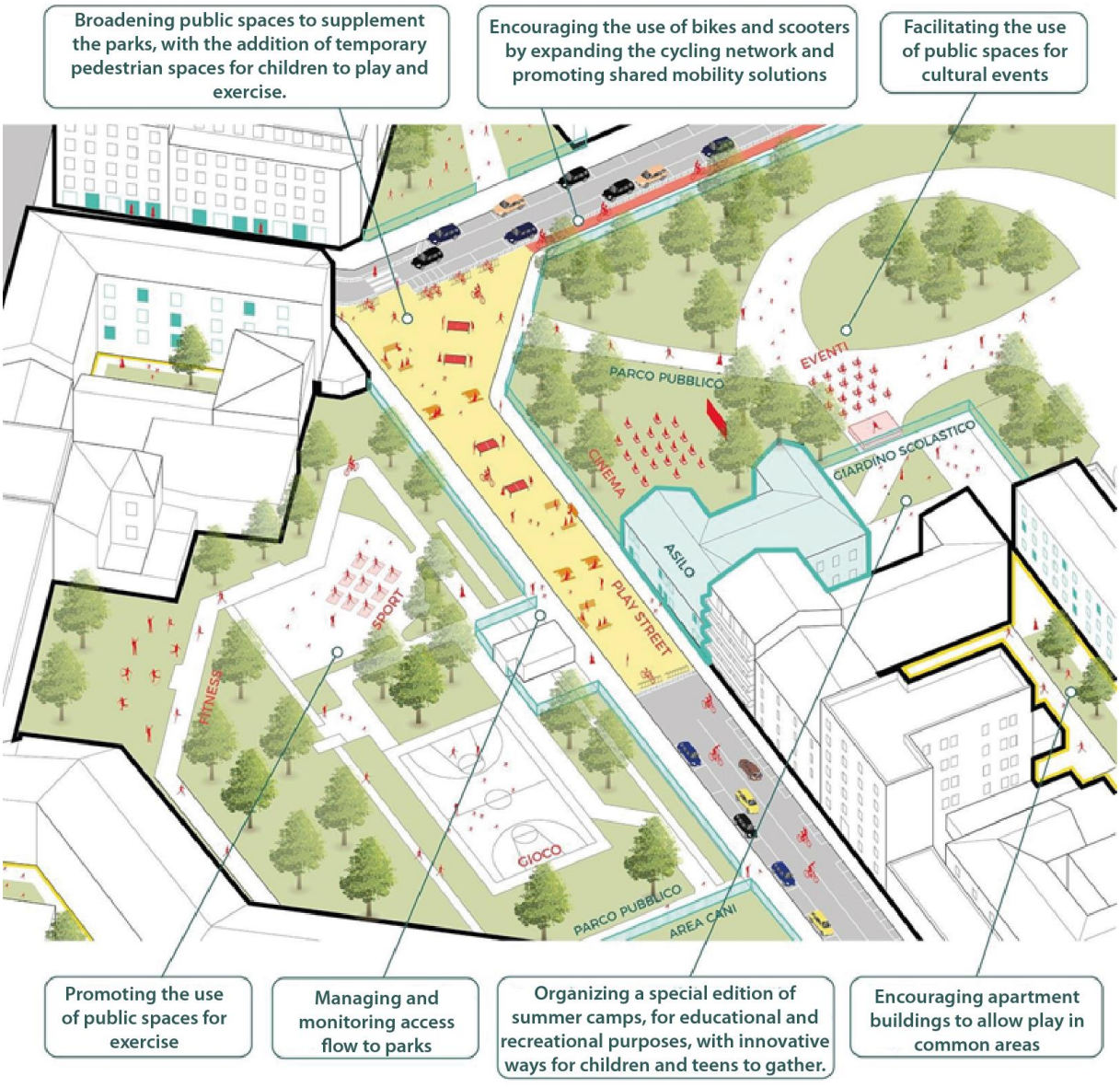
The image below depicts a trial case for the interventions described, which could be a pilot for further implementations. The interventions will be implemented as early as phase 2 of the emergency, starting in the coming months and continuing through the fall, as most activities resume and schools and universities reopen.



“Open Streets” in the Porta Venezia-Lazzaretto district.

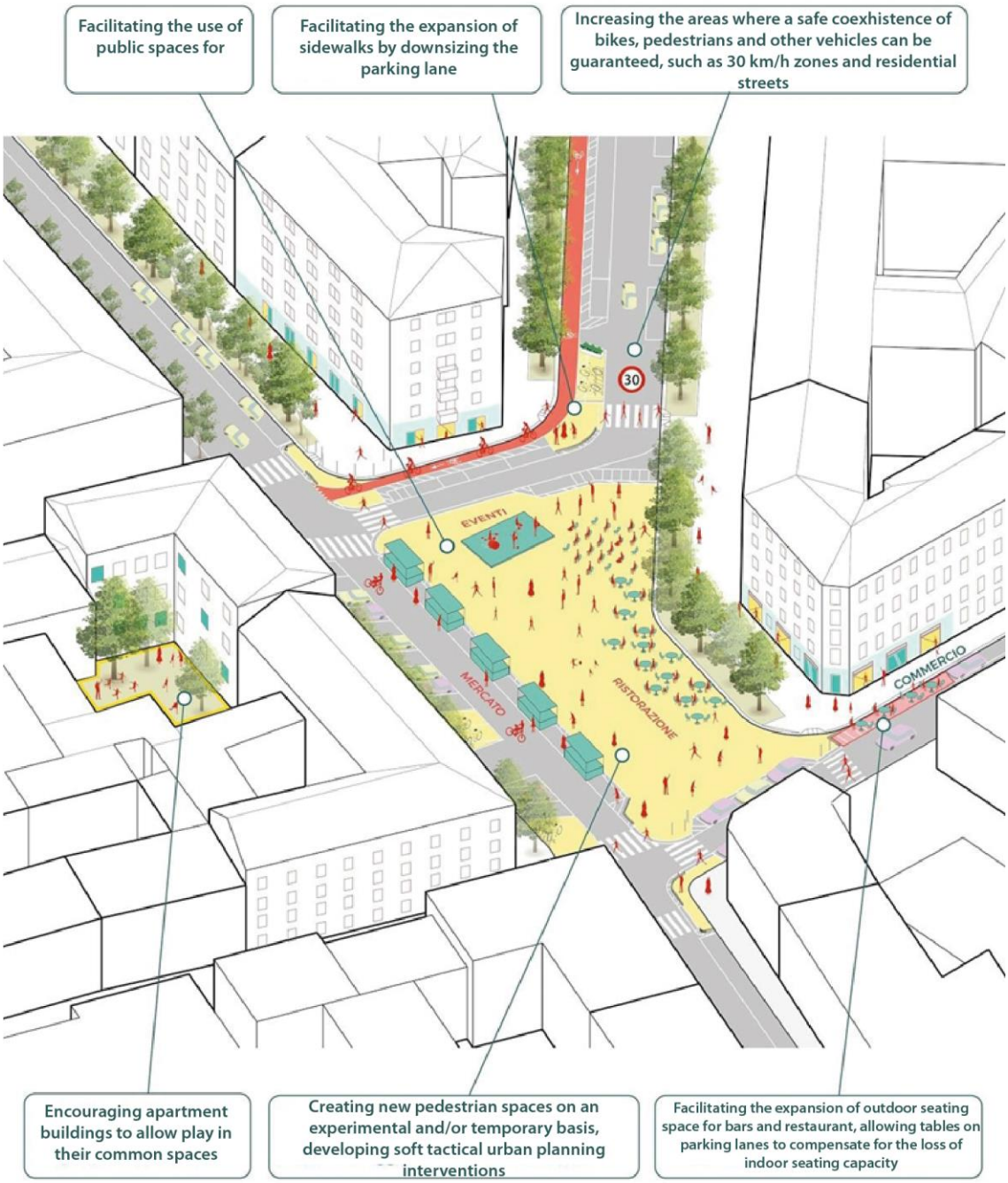
The street as a public space

Given the need to manage and monitor access flows to the parks, it will be necessary during the "new normal" phase to rethink the way we use streets, especially in neighborhoods with fewer green areas, in order to increase the available **pedestrian space** to allow children to play and exercise (Play Streets).



“Open Streets” in the Isola district, Via Toce.

It will also be necessary to re-adapt expanded sidewalks, encouraging local bars and restaurants to create outdoor seating areas, in order to compensate for loss in indoor seating capacity due to distancing requirements, as well as encouraging the use of public outdoor space for hosting cultural and sporting events, allowing the organizers to carry out their activities in respect of capacity limitations and distancing requirements.



“Open Streets” in the Isola district, Via Minniti.

Trial cases and experimentations

Interventions involving signage only

Type: ⬆ With Traffic
Tools: street signs only
Reversibility: high

The project consists of the construction of the bike lane alongside the sidewalks, possibly supplemented by 30 km/h zones shared with motor vehicles, reduction in the number and/or size of the motor vehicle lanes, with limited costs and construction times.

before

after

Interventions involving parking-protected signage

Type: ⬆ With Traffic ⬇ Contraflow
Tools: street signs only
Reversibility: high

The project involves "moving" the parking space towards the curb, this way the new pedestrian and/or cycling pathway will be protected by the parked cars themselves This solution can be useful both in two-way streets to create one-way lanes and in one-way streets to allow two-way cycling.

before

after

Interventions involving signage and emergency devices

Type: ⬆ With Traffic ⬇ Contraflow
Tools: street signs and bollards/traffic islands
Reversibility: medium

The project involves the construction of bike lanes separated from the vehicle lanes by means of temporary approved traffic signs and devices.

Two-way cycling lanes

Type: ⬆ With Traffic ⬇ Contraflow
Tools: street signs and bollards/traffic islands
Reversibility: medium-high

The project involves the introduction of a cycling direction in the opposite direction to the vehicular one on roads at moderate speed and/or closed to particular categories of vehicles and with appropriate geometrical characteristics. This can be done directly on-site, with the use of bollards or traffic islands, or with signage only, by establishing a " two-way traffic path for cyclists only".

Traffic control interventions

Type: ⬆ With Traffic
Tools: street signs and/or bollards
Reversibility: medium-high

This category includes both the introduction of **30 km/h roads**, mainly on secondary roads of major urban axes, and **30 km/h zones**, mainly in residential areas to allow for safe walking and cycling across neighborhoods. Speed moderation interventions are more effective if coupled with the installation of **speed bumpers**, which help ensure that speed limits are observed without interfering with transit of buses, emergency vehicles and two-wheeled vehicles.

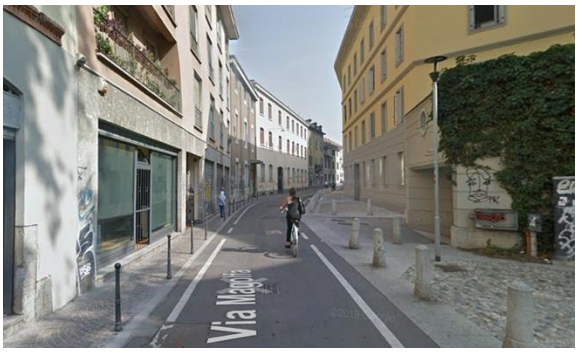
Before

after

Shared streets

Type: ⬆ With Traffic ⬇ Contraflow
Tools: street signs
Reversibility: high

This proposal would designate shared urban areas with limited traffic access and special traffic rules aimed, prioritizing pedestrian and bike traffic.



Sidewalk expansion

Tools: street signs and/or bollards
Reversibility: medium-high

Pedestrian interventions include the possibility of widening sidewalks that do not allow safe distances between people, creating space from the roadway and separating it with temporary devices and other tactical urban planning tools.

Before

after

Pedestrian-only streets

Type: ⬆ With Traffic ⬇ Contraflow
Tools: street signs, temporary/permanent bollards
Reversibility: medium-high

This includes the possibility of creating new **pedestrian areas**, with the closure of part or all of a road to vehicular traffic, without impacting on local accessibility (even on a temporary basis, such as car-free school roads).

Before

After

Parklet

Tools: urban furniture
Reversibility: high

This proposal involves the expansion of the sidewalk into the parking lane, with the installation of platforms and/or protective elements such as street furniture (e.g. racks, benches).

Other experiments

The project includes the experimentation of new methods of implementation, not yet provided for in the Highway Code, such as:

1. Stop area and bike box at intersections and cycling continuity in signposting;
2. Signposting even in the absence of a cycle lane;
3. Sign-posted bike lanes between the carriageway and the parking lane;
4. Marked bike lanes accompanied by speed limits, enforced by signposting and traffic bumpers.
5. One-way road, except for bike lanes or two-way bike path, by signposting only or with bollards/traffic islands.

Planned actions and interventions

Planned actions

The bike route planning for this emergency phase involves:

- The identification of **emergency bike routes with signage** only along the main radial and circular routes of the city;

- The connection of the existing bike lanes, through the creation of **new routes by alternating signage and light structural interventions to help safety** as well as to facilitate redevelopment and paving;

- The identification of **limited speed routes**, mainly along secondary streets around the main radial and circular routes;

- An increase in the number of areas where both bikes and pedestrian can safely circulate, such as **30 km/h zones** and shared roads, with a higher quality of urban space.

Within the framework of the expansion pedestrian areas and the projects also involves:

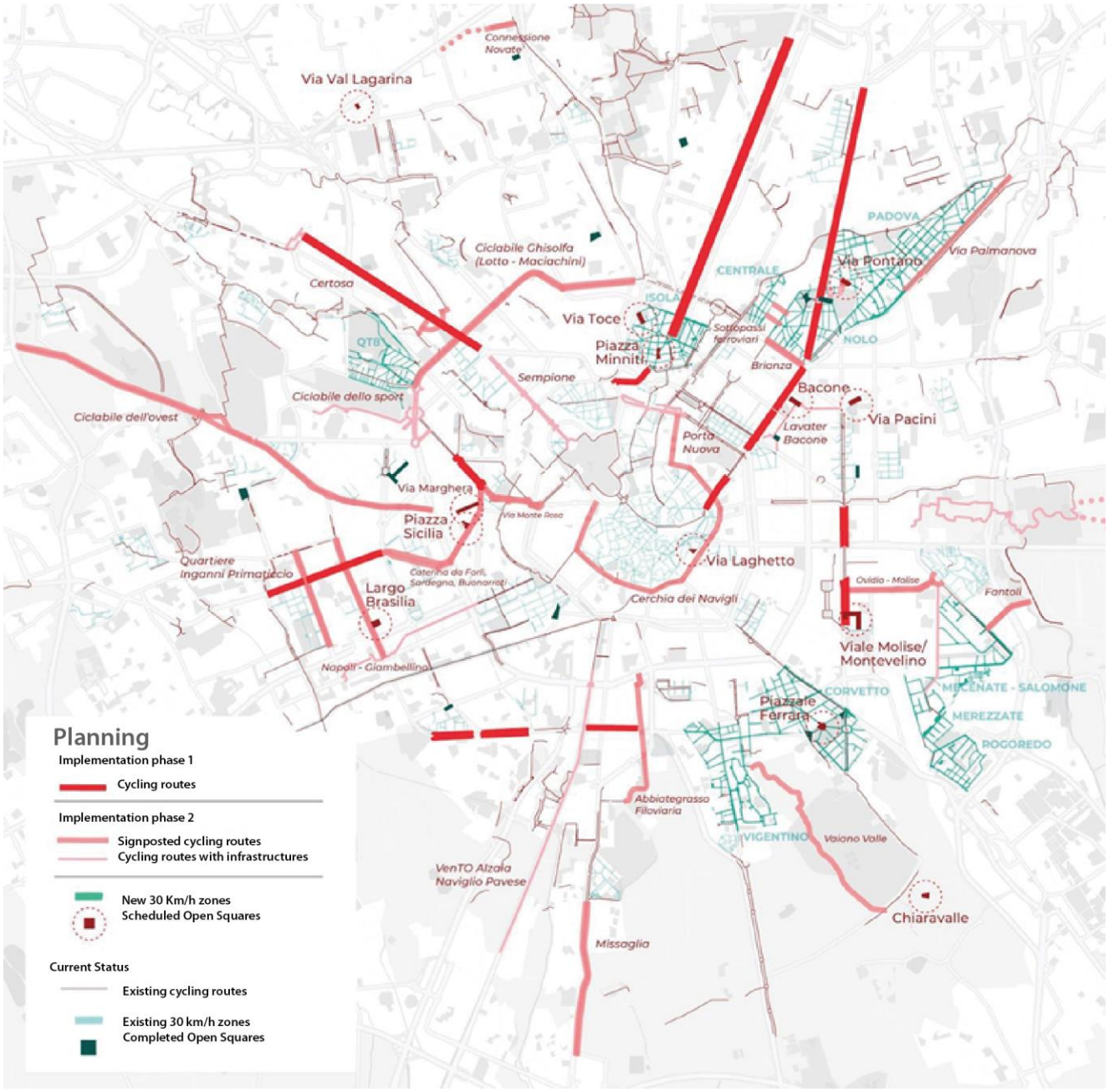
- The extension of **pedestrian routs** by widening the sidewalks, where reduced spaces are identified (in particular at intersections), also by means of non-structural interventions, adapting the city to physical distance measures with the identification of "protected" routes for vulnerable individuals.

- Increasing the allocation of **public areas**, in an experimental and temporary way, to complement the parks, adding pedestrian areas to those districts lacking green areas, to allow children to play and exercise (**Play Streets**);

- Creating **new pedestrian spaces** by developing light tactical urban planning measures, particularly near schools and other public facilities especially in those districts lacking green areas, to allow children to play and exercise (**Open Squares**);

- Allowing restaurants and bars to expand outdoor seating on “**parklets**”, to compensate for the loss of indoor seating capacity due to distancing measures.

Planned interventions



Planned intervention for walkability and cyclability in the city of Milan

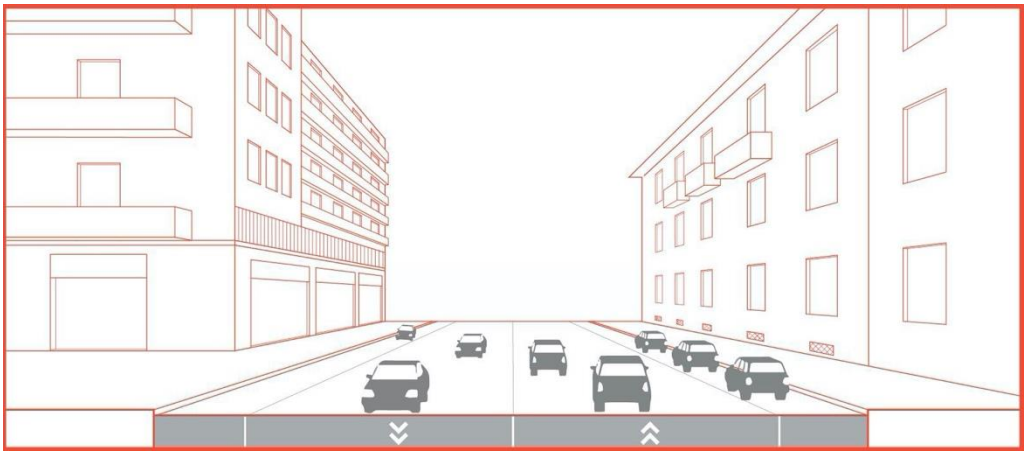
Implementation examples

Cycle path with signage only

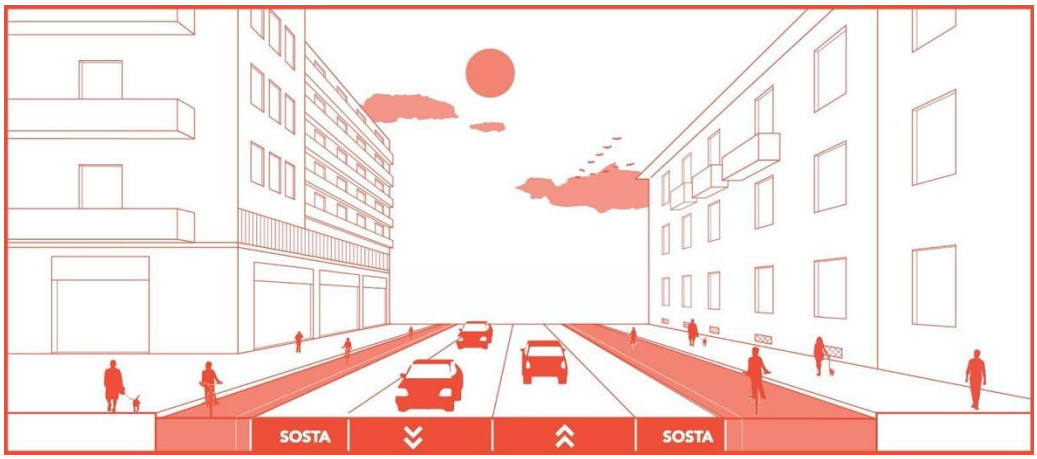
Itinerary: San Babila - Sesto Marelli

The project will connect the city center with the Municipality of Sesto San Giovanny, involving the routes of Corso Venezia, Corso Buenos Aires and Viale Monza, with signposted bike lanes and speed limits for 8 km.

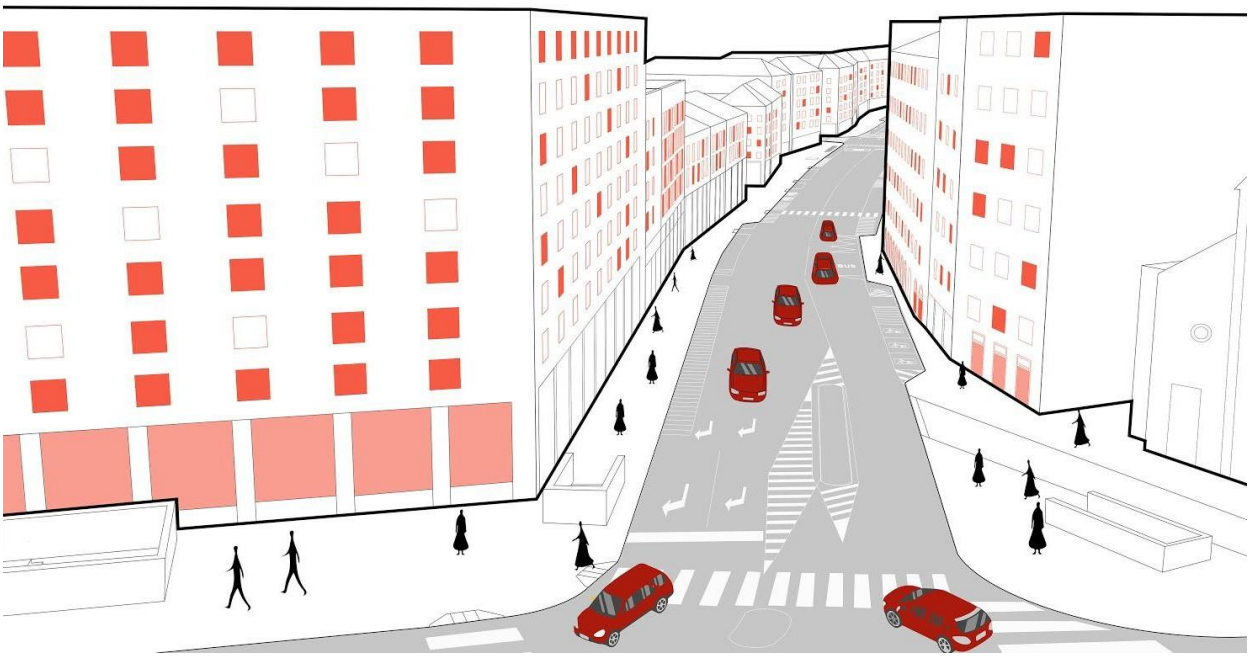
Corso Venezia



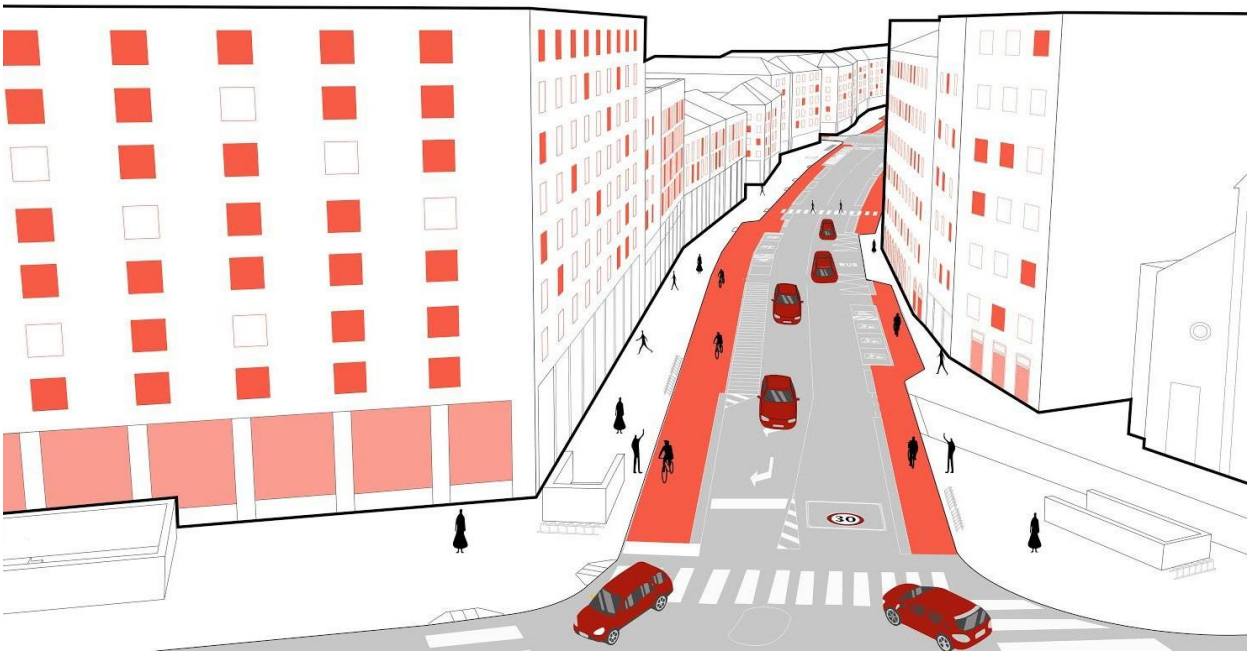
Corso Venezia - Current



Corso Venezia - Proposed

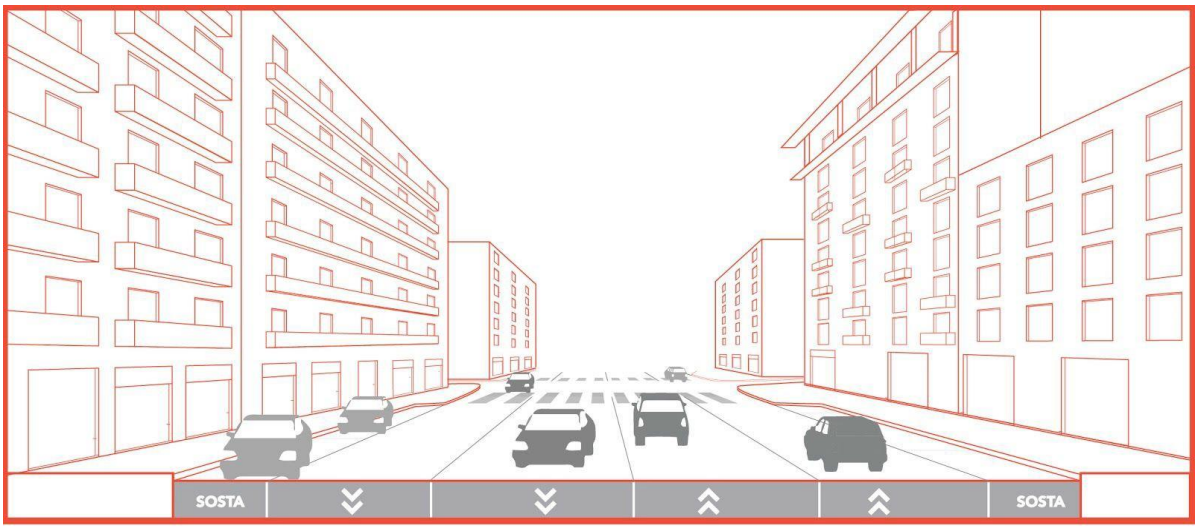


Corso Venezia - Current



Corso Venezia - Proposed

Corso Buenos Aires



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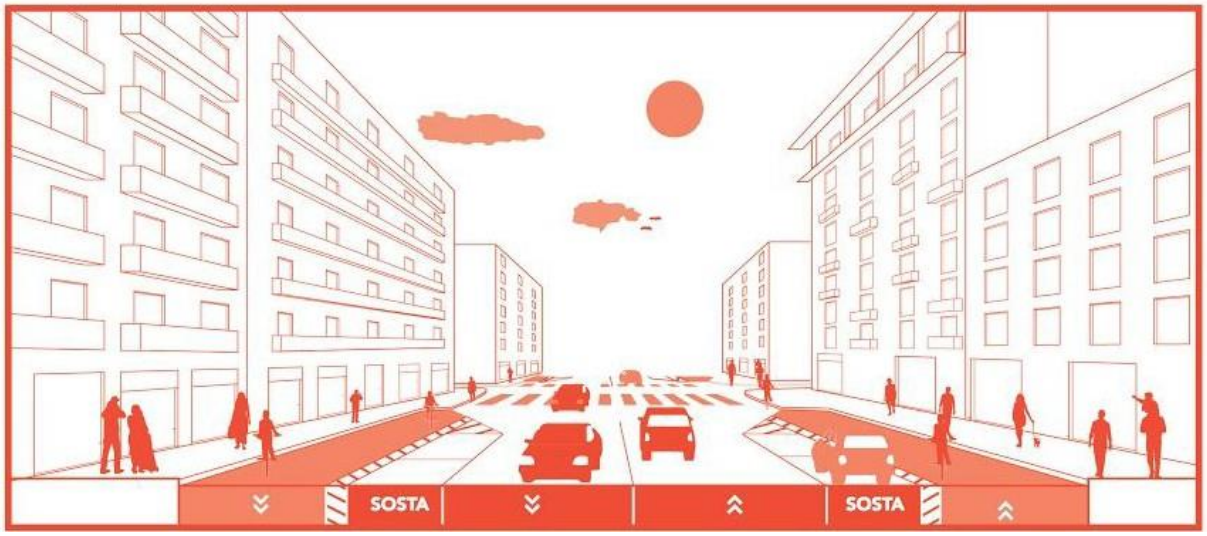
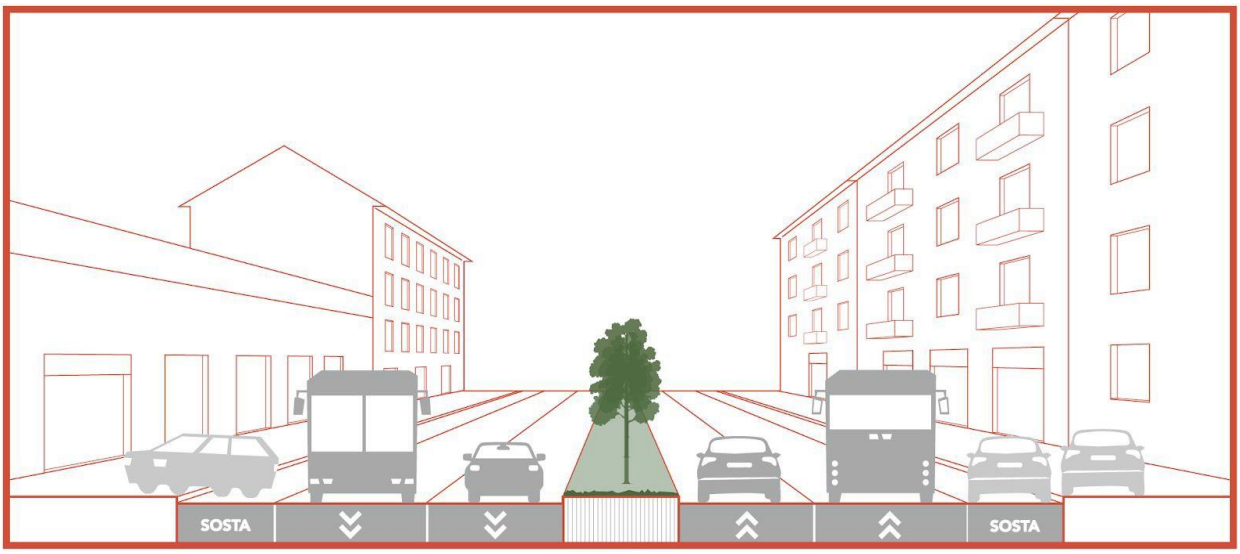


Corso Buenos Aires - Project

Viale Monza



Viale Monza - Current

Viale Monza - Project

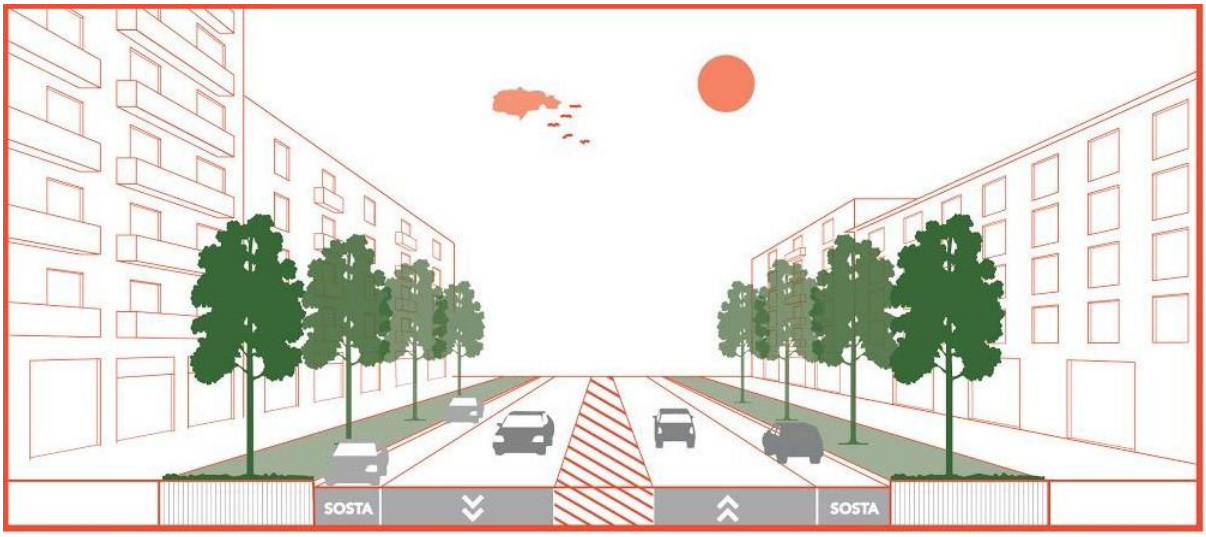
Widespread cyclability project, with sign-posting and structural interventions

Itinerary: Bisceglie-Buonarroti

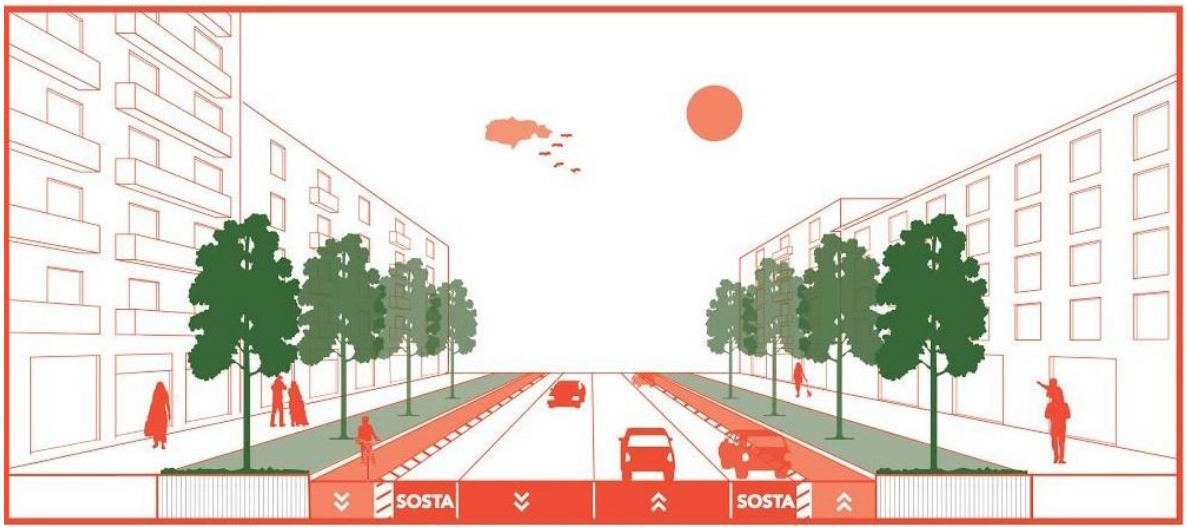
The itinerary will connect the outer districts to the city center, with an expansion of the cycle network, through sign-posting and structural interventions:

- construction of two one-way cycle lanes separated by the parking lane, and overall upgrading for the road axis along vie Legioni Romane, Berna e Zurigo, along with safety improvements;
- upgrading of the 30 km/h in via Caterina da Forlì and redevelopment of the existing route in the central parterre;
- construction of two one-way bike lanes separated by the parking lane in Via Sardegna and Via Buonarroti.

Via Sardegna

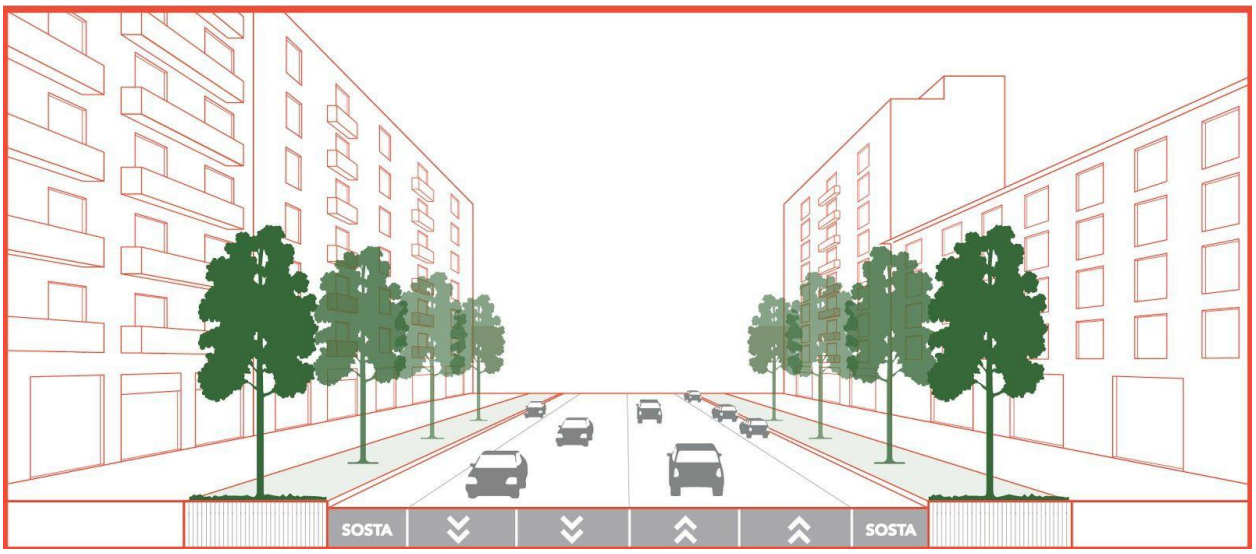


Via Sardegna - Current

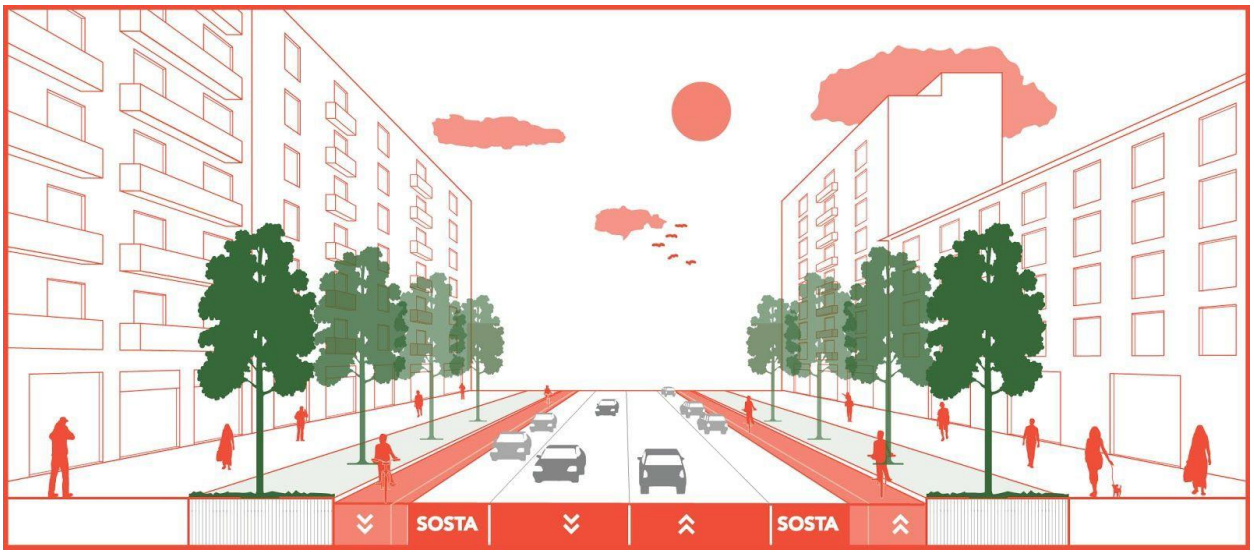


Via Sardegna - Project

Via Buonarroti



Via Buonarroti - Current



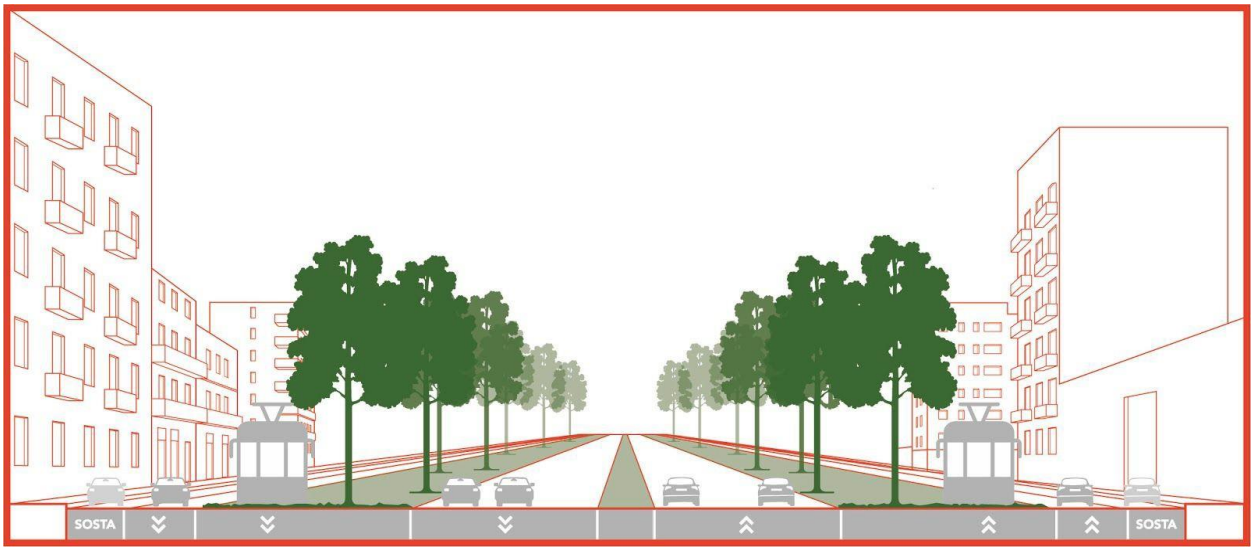
Via Buonarroti - Project

Limited speed itinerary

Itinerary: Isola - Parco Nord

The project aims at improving cyclability on secondary streets, through their transformation into 30 km/h areas, including Viale Zara and Viale Fulvio Testi, thus connecting them to Parco Nord and the municipalities of Cinisello Balsamo and Sesto San Giovanni.

Viale Zara



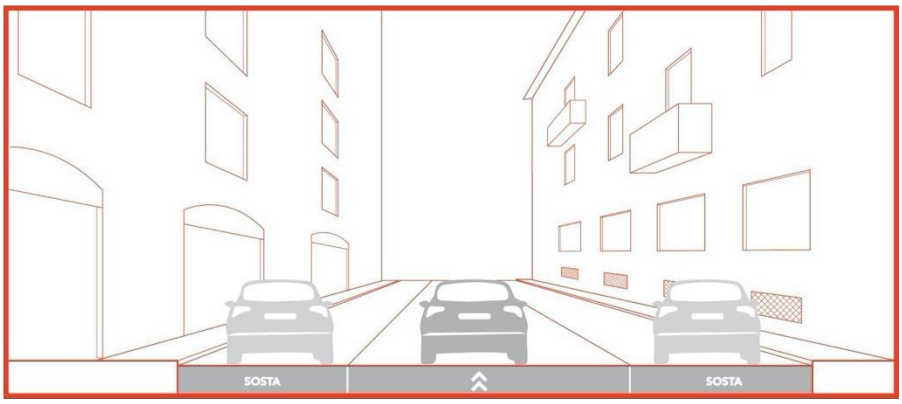
Viale Zara - Current

Viale Zara - Project

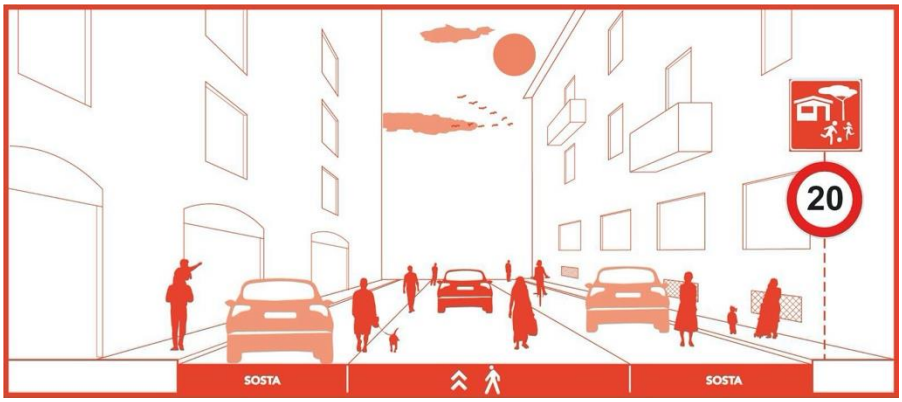
Creation of shared streets

Lazzaretto, Via Casati

The project consists in prioritizing pedestrian and bike traffic in some designated streets, while allowing limited circulation to motor vehicles.



Current

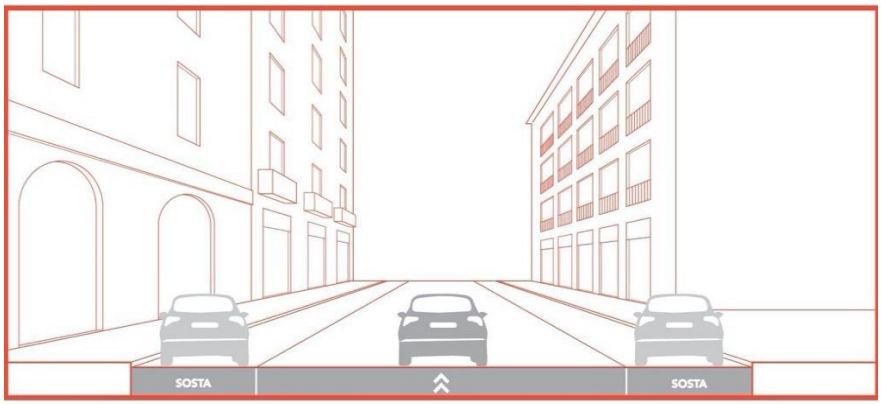


project

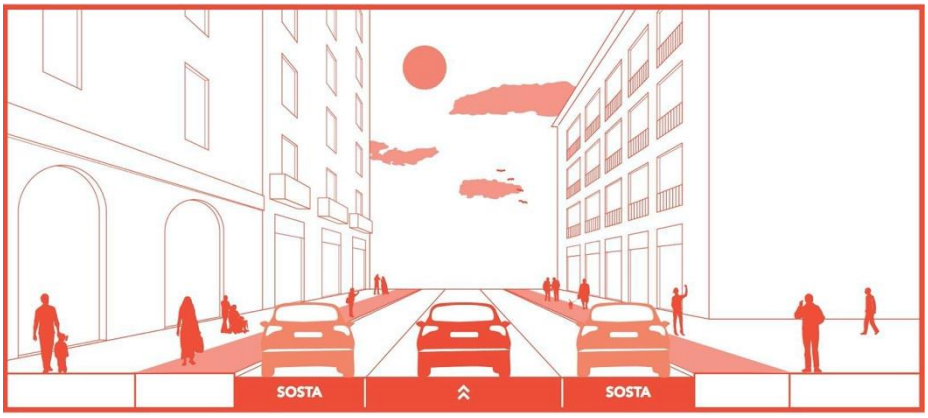
Pedestrian pathway expansion project

Via Marghera

Expansion of the sidewalks along via Marghera, through signposting only, separated by the parking lane, with narrowing of the carriageway. The intervention allows the pedestrian to walk in protected spaces while respecting the physical distance measures.



Current



Project

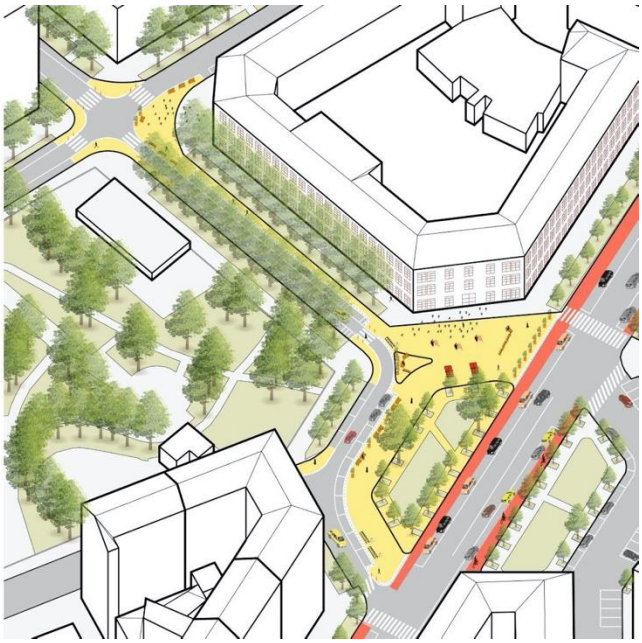
Pedestrianization project

Piazza Sicilia

The project, resulting from a proposal by citizens in response to the public notice 'Open squares in every neighborhood', involves the expansion of the pedestrian area outside schools, thus increasing the safety of the two main entrances and maximizing the space dedicated to safe play and socializing activities.

The closure of Via Sacco in the segment between Via Seprio and Via dei Gracchi during school entrance and exit times, aims to provide space for parents and children during important moments of the day, while maintaining vehicular access during the rest of the day.

Piazza Sicilia - current



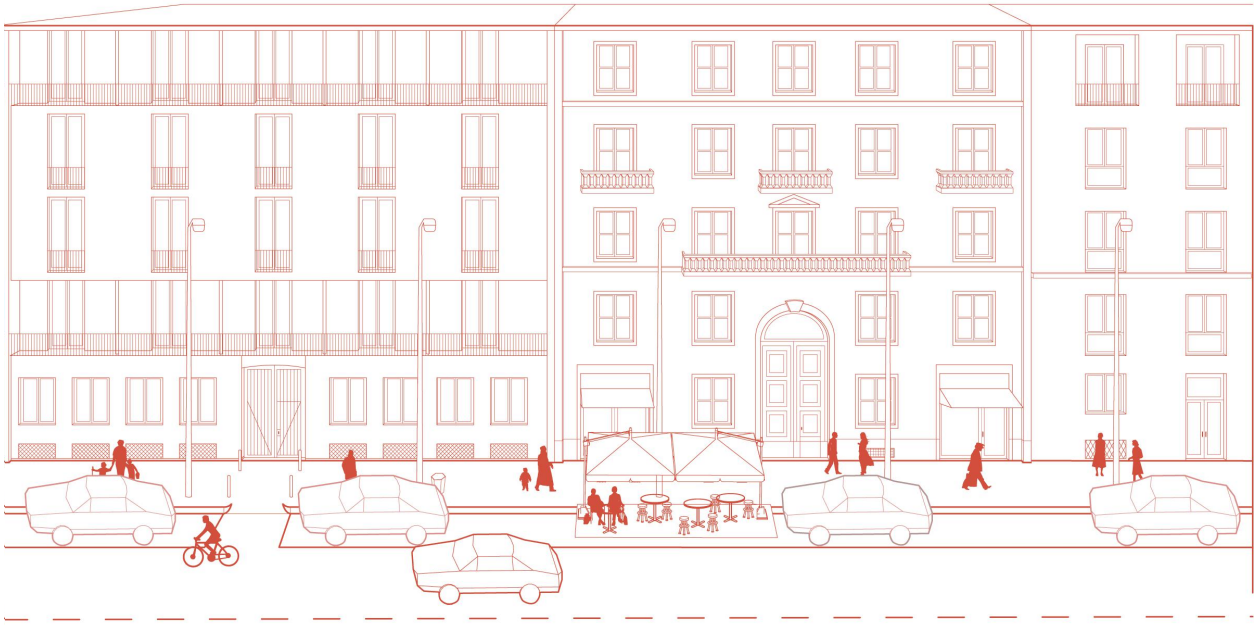
Piazza Sicilia - project

Examples of parking area activation

Parklet

The project aims at encouraging the use of parts of the road and/or parking lane as outdoor seating by restaurants and bars, while guaranteeing social distancing.

Current



project