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LET'S FILL STREETS WITH LIFE

Establishing Superblocks in Barcelona

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Barcelona aims to establish a new way of organising the city which reverses the current distribution of public areas between vehicles and people, giving priority to city residents and aiming to improve the city's environmental conditions and quality of life.

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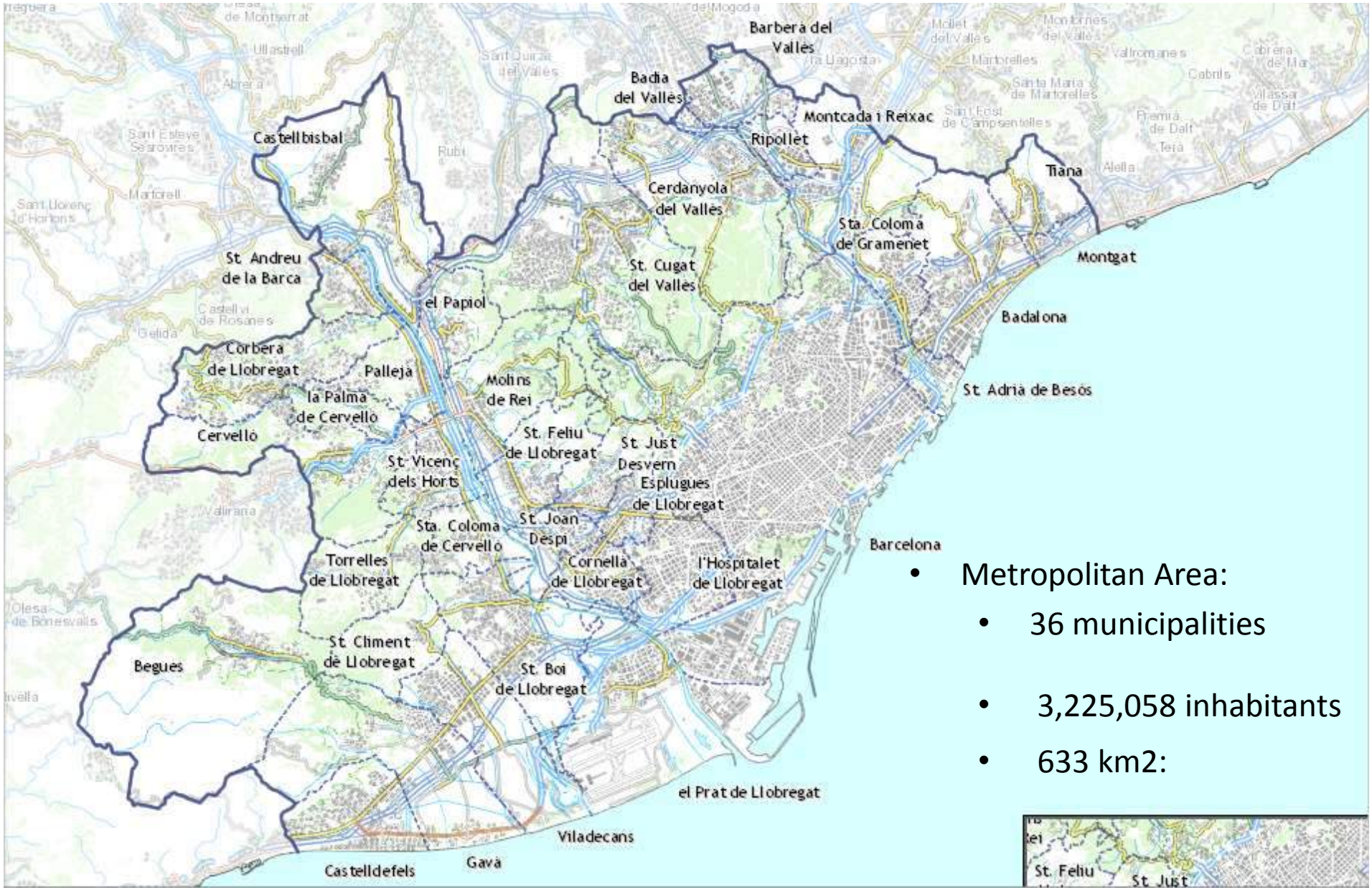
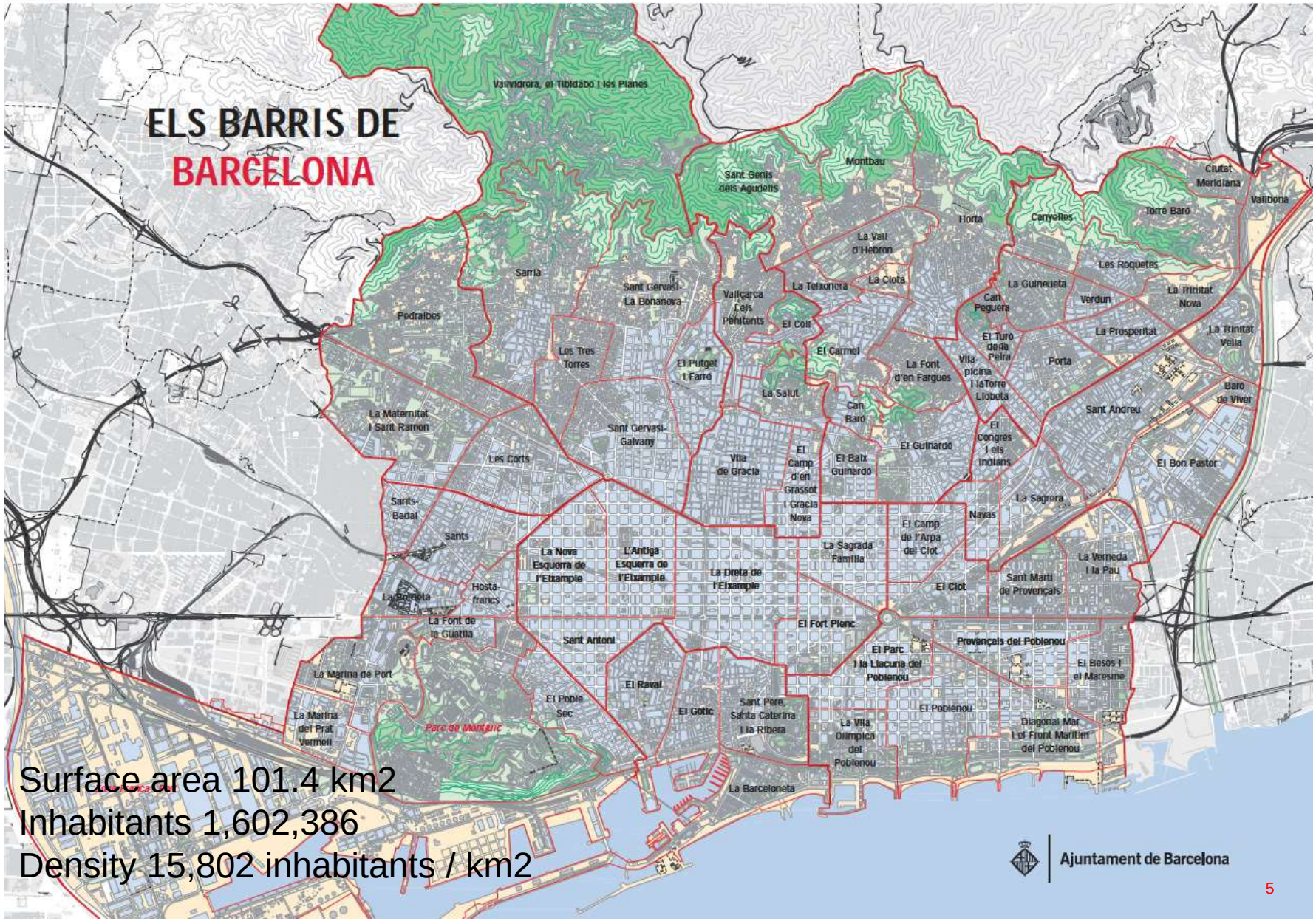
1. THE CHALLENGES FACING A COMPACT CITY



- Metropolitan Area:
  - 36 municipalities
  - 3,225,058 inhabitants
  - 633 km2:

BARCELONA'S NEIGHBOURHOODS



Various indicators describe
a city that is at the limit of its capacity in terms of
the quality of people's lives.
We need to be aware that it is necessary to take action to check
negative aspects and reinforce the positive ones.

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Lack of green areas

Barcelona is one of the European cities with the lowest number of green areas. Barcelona has **6.64 m2 of green space per inhabitant**, without including Collserola. In some districts the figure is well below average: 1.85 m2 in the Eixample and 3.15 m2 in Gràcia*

**Source: Barcelona Green Area and Biodiversity Plan for 2020. Barcelona City Council. April 2013*

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High levels of pollution

Air-quality measurements taken in recent years show high levels of pollution in the City of Barcelona, which sometimes exceeds the maximum limits established in current legislation. It is calculated that PM10 pollution is related to around 3,500 premature deaths every year in the Metropolitan Area, and leads to lower life expectancy.*

**Source: The public health benefits of reducing atmospheric pollution in Barcelona's Metropolitan Area. CREAL (Research Centre for Environmental Epidemiology) 2007*

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Noise pollution

53.87% of the population is exposed to noise levels of between 60 and 70 dBA during the day.
The WHO recommends a maximum limit of 65 dBA.
The main daytime source of noise in Barcelona is traffic.

**Source: Barcelona, a city committed to the environment. Environmental report. Barcelona City Council. 2013*

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High rate of road accidents

In 2004, there were over 11,000 people injured in city traffic accidents. There were also 31 deaths, with greater incidence in motorcycle riders and pedestrians*

**Source: Barcelona Public Health Agency (2014): "Health in Barcelona 2014"*

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Sedentary lifestyle

1 out of every 5 children between the ages of 0 and 18 is overweight.
There are two decisive factors that influence excess weight and obesity: an unbalanced diet and a lack of physical activity.

**Source: "Health in Barcelona" Barcelona Public Health Agency. 2014*

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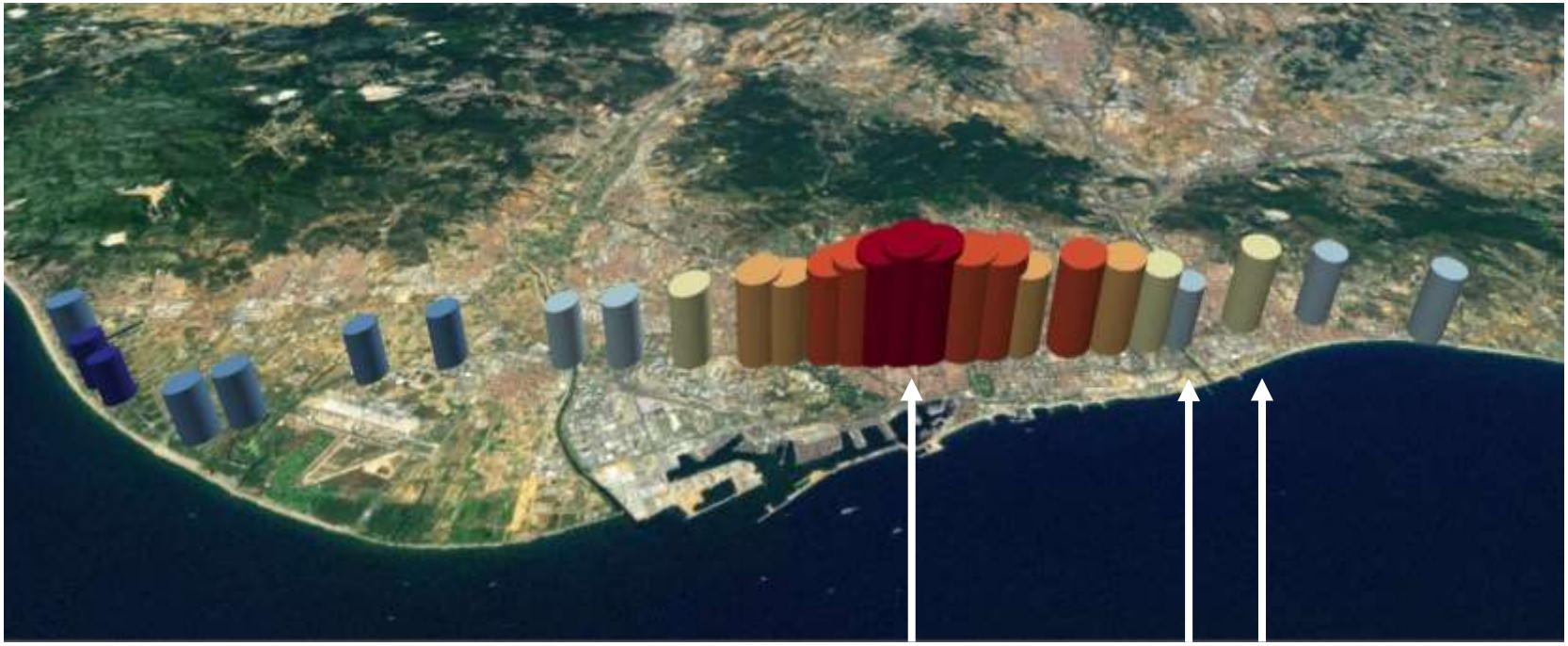
Heat-island effect



A summer temperature increase of up to 4º in the centre of Barcelona, due to the heat-island effect.

**Own production, based on Transect 1 temperature data (JM Vide, 2014-2015)*

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CO2 Emissions

In addition to public health matters, it is also necessary to mention other challenges arising from our current legal framework concerning the environment. These include the need to **reduce energy consumption and greenhouse-gas emissions**, questions where the transport sector has a direct and highly significant impact.

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Why? Barcelona, a city on the edge

In spite of everything, Barcelona is a city that has opportunities for regeneration.
Barcelona is founded on a rational structure that makes various new interpretations possible.

The Superblock Programme can improve some of these indicators, defining new objectives for attaining a **healthier**, **more egalitarianand more sustainable city that is full of life**.

2. SUPERBLOCKS, A CHANGE IN CITY MODEL

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Regaining the street

The streets of our towns and cities have traditionally been used as a support structure for journeys, while also being an ideal place for children's games, local-resident gatherings, strolls, contemplation, etc.

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Streets for people

In an effort to return to a position where people are citizens, instead of their current relegated status as pedestrians. This also means establishing other rights in public places, such as relaxation, leisure, playing, festivities, culture, economic exchange, the exchange of information and knowledge and the right of expression and demonstration.

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Reducing the space occupied by private vehicles

Over the last few decades, urban functions concerning leisure activities and personal interaction have been significantly eroded or have completely disappeared from our streets.
In how many Barcelona streets can you see groups of children playing together?

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Reducing the space occupied by private vehicles

Source: PTP (Platform for the Promotion of Public Transport)

It has become essential to reduce the importance of individual motorised transport (cars and motorcycles). Although they only represent around 25% of the journeys made by Barcelona residents, their traffic and parking occupies 50-75% of available space in many streets.
It is therefore necessary to increase the number of journeys made by public transport, on bicycles and on foot.

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More sustainable mobility

The use of **more sustainable modes of transport must be promoted** in order to reduce the volume of internal journeys using private vehicles. The new **Orthogonal Bus Network** is a clear example of improving this transport system, by offering greater accessibility and creating a network.
Similar efforts are being made to offer a **network of bicycle lanes**, to promote cycling as an alternative to private vehicles.

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A chance to get back to nature

The Superblock Model is a chance to establish more green areas and corridors and increase the city's biodiversity.

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Complete involvement

Working jointly with the general public on designing, implementing and evaluating initiatives

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There is an opportunity for improving the habitability of public areas and urban green areas.

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General plan of Plaça de les Glòries before the flyover was demolished in 2014-15

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General plan for the provisional design of Plaça de les Glòries 2015-2018

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General plan for the urban planning project for the park in Plaça de les Glòries 2018-2020

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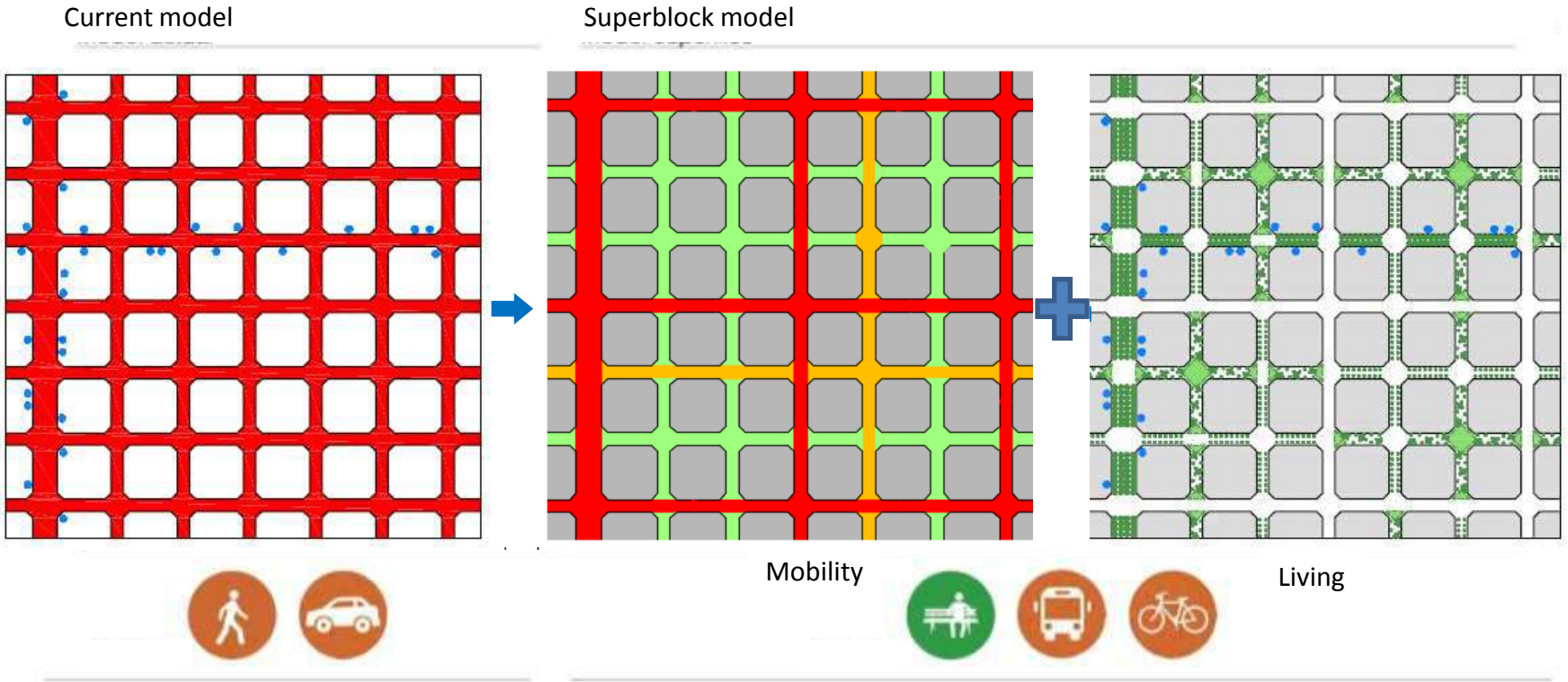
Superblock organisational model



The Superblock Model reorganises the way streets work, **diversifying** the ones used for through traffic and **qualifying** the other streets for other functions, such as leisure, relaxation and the introduction of green areas and biodiversity.

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Functional networks

Every functional network (pedestrians and green areas, bicycle, bus and car) is deployed and superimposed.

As a result of superimposing functional networks,the amount of connectivity and city-resident activity in streets leads to a new way of organising the various types of street.

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Types of street

TYPES OF STREET	CODE	Functional support network	Type of connection	Type of city-resident perception
MAIN STREET	MS	• Pedestrian network • Bus network • Fast bicycle lane network • Fast private transport network	• Maximum continuity • Through traffic	• City level
LOCAL STREET	LS	• Pedestrian network • Bus network • Bicycle-lane network • Private transport network	• Partial continuity • Through traffic and access to district and/or neighbourhood	• District or neighbourhood level
NEIGHBOURHOOD STREET	NS	• Coexistence between pedestrians, cyclist and private transport, with priority for pedestrians	• Fractional continuity • Origin-destination traffic	• Neighbourhood level
CIVIC HUB	CH	• According to type of street: MS, LS, or NS	• According to type of street: MS, LS, or NS	• Street that attracts city-resident activities

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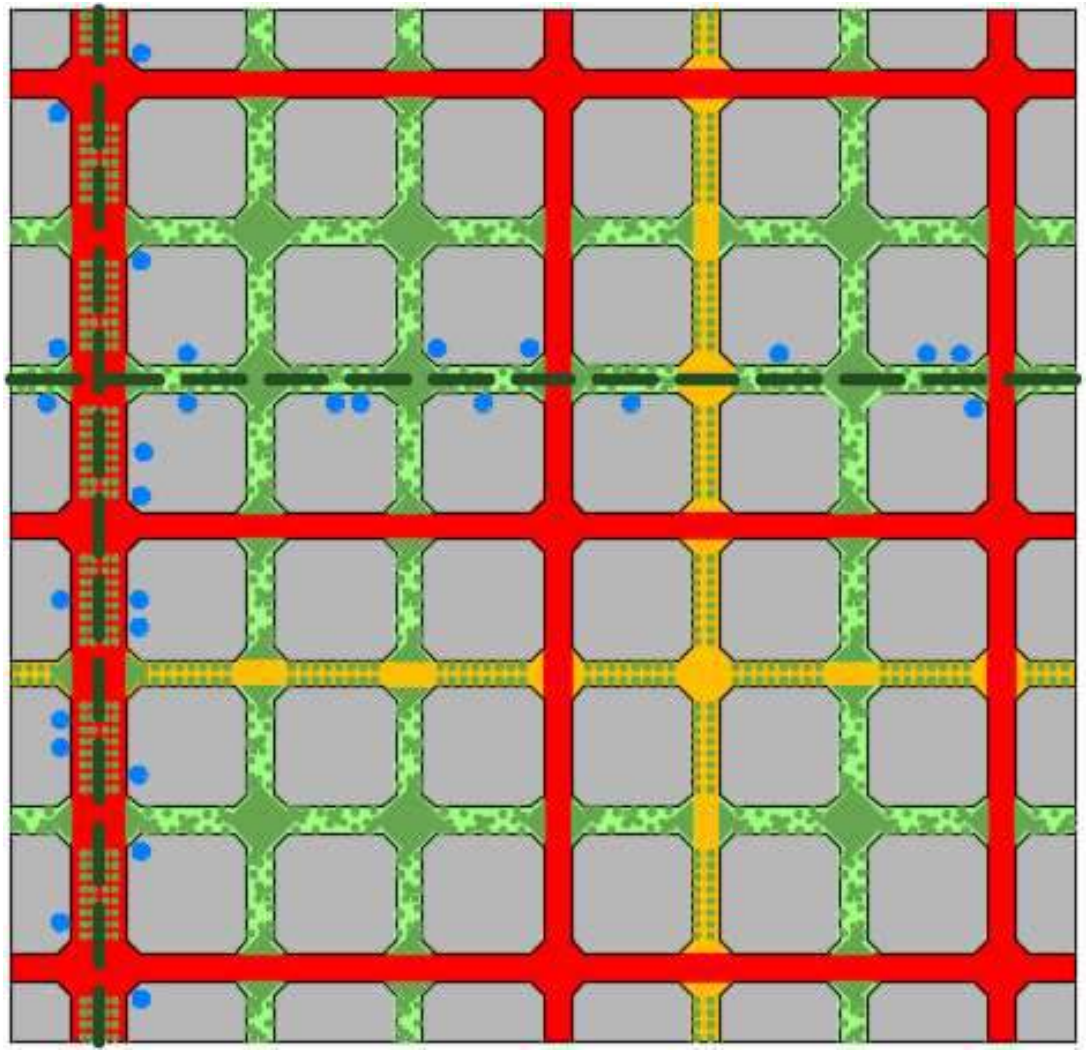
Types of street



DESCRIPTION

- Main street
- Local street
- Neighbourhood street
- Civic axes

The homogenisation of diversity

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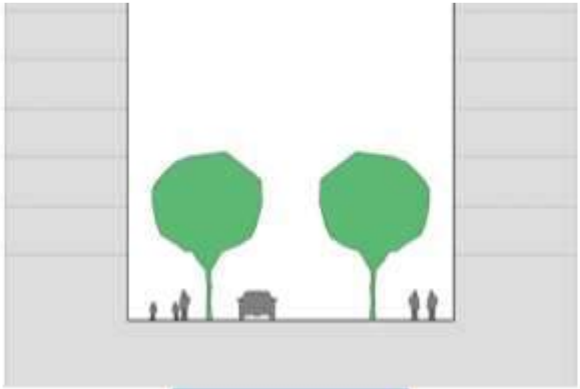
Attributes of public areas



Habitability of the area

- DISTRIBUTION OF USES
- ACOUSTIC COMFORT
- THERMAL COMFORT
- FURNITURE
- PAVEMENTS
- PAVING
- LIGHTING
- INFRASTRUCTURES

Mobility

- RATIONALISATION OF MOBILITY:
- PEOPLE
- BICYCLES
- PUBLIC TRANSPORT
- GOODS
- PRIVATE TRANSPORT
- PARKING

Green areas and biodiversity

- TREES
- BUSHES
- GARDENS
- FAUNA
- WATER
- PERMEABILITY
- ROOF TERRACES
- DIVIDING WALLS

Initiatives

Level of impact: basic, tactical and structural

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Initiative characteristics

- **Basic:** functional change in the area's mobility.

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Initiative characteristics

- **Tactical:** basic level + tactical improvement of the public area's habitability (economical, without construction work).

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Initiative characteristics

- **Structural:** Tactical level + definitive redevelopment that consolidates functional change, habitability and the establishment of green infrastructure and biodiversity.

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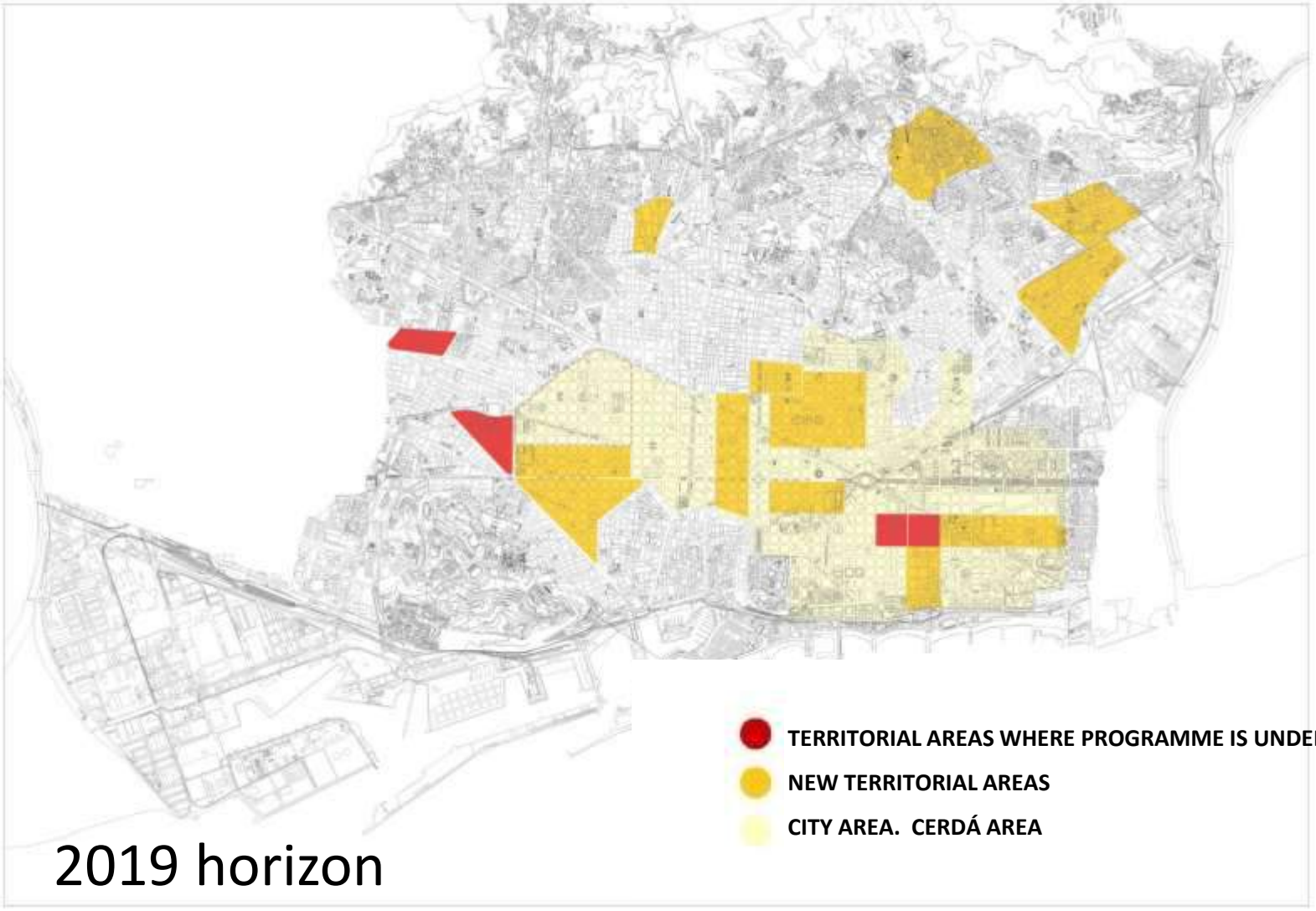
Plan showing Implementation at a city level



2019 horizon

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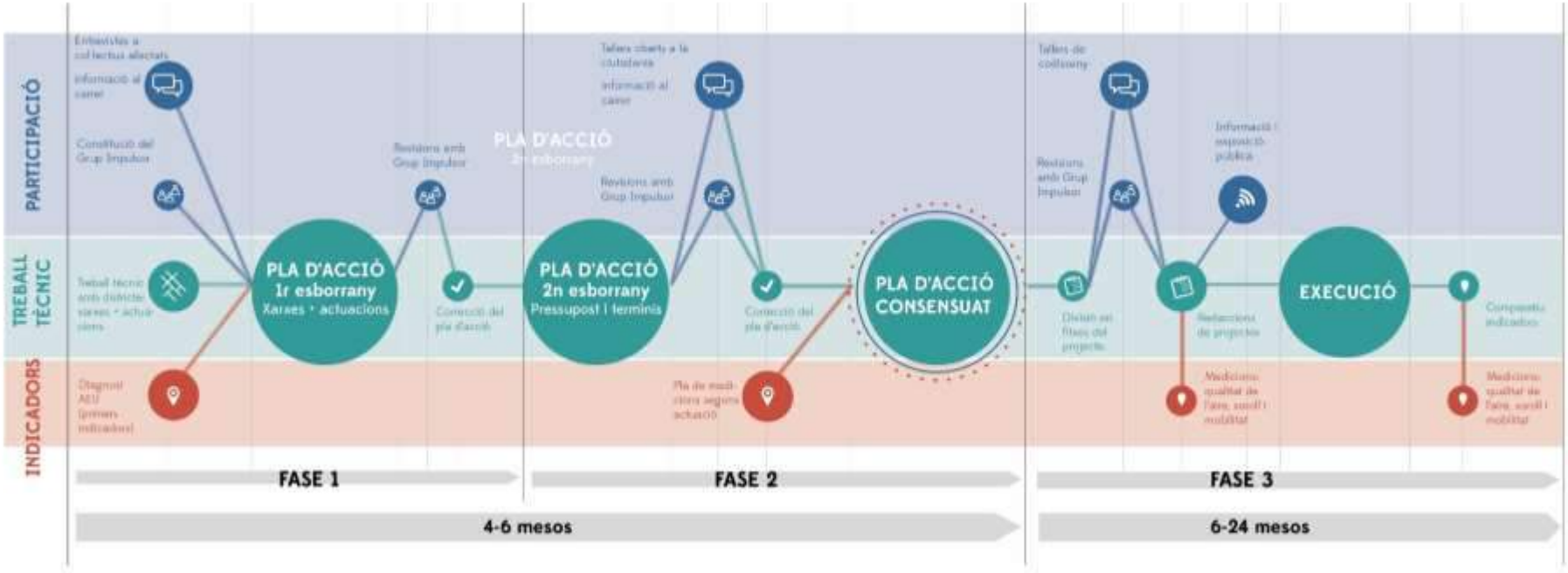
Participative and technical work processes



PHASE 4 EVALUATION

1. Definition and analysis of the area
2. Internal work by the Technical Secretariat.
3. Technical work with the district.
4. Work with the Promotional Group
5. Participation with specific groups
6. Participation with local residents
7. Approval of Action Plan
8. Drafting projects with suitable protocol and participation according to type of initiative
9. Implementing the initiatives

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General directives

- Maximum **participation** in diagnosis, proposals and implementation.
- Priority for **functional changes over physical changes** (Tactical urban planning).
- **Deployment** throughout the city, with priority for the Cerdà area (Eixample, Gràcia and Sant Martí).
- Maximum thematic **transversality**. Integrating all views.
- Implementation at **different speeds**: flexibility according to the programme's phase and complexity for each area in each district.
- **Two scales of intervention**: initiatives with an impact throughout the city and initiatives with a local impact.
- **Establishment of measurable indicators** to monitor the evolution of the change.
- Start of a **continuous-improvement process** for public areas. The Programme is not an isolated event, but rather the start of a transformational process.

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4. EXAMPLE THE SANT MARTÍ SUPERBLOCKS

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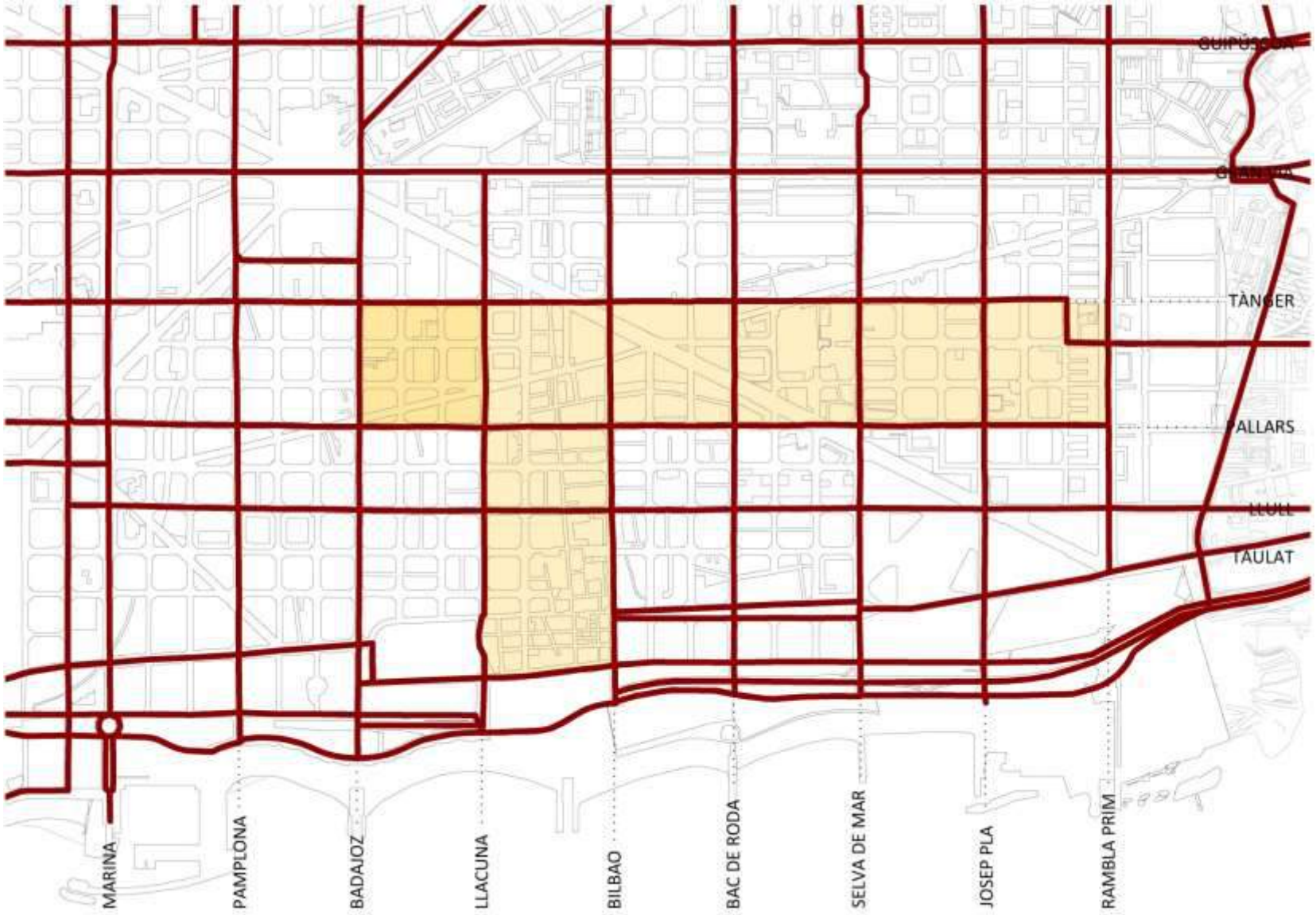
SCOPE OF SANT MARTÍ ACTION PLAN



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Acoustic Comfort

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Acoustic Comfort

LONG-TERM SCENARIO

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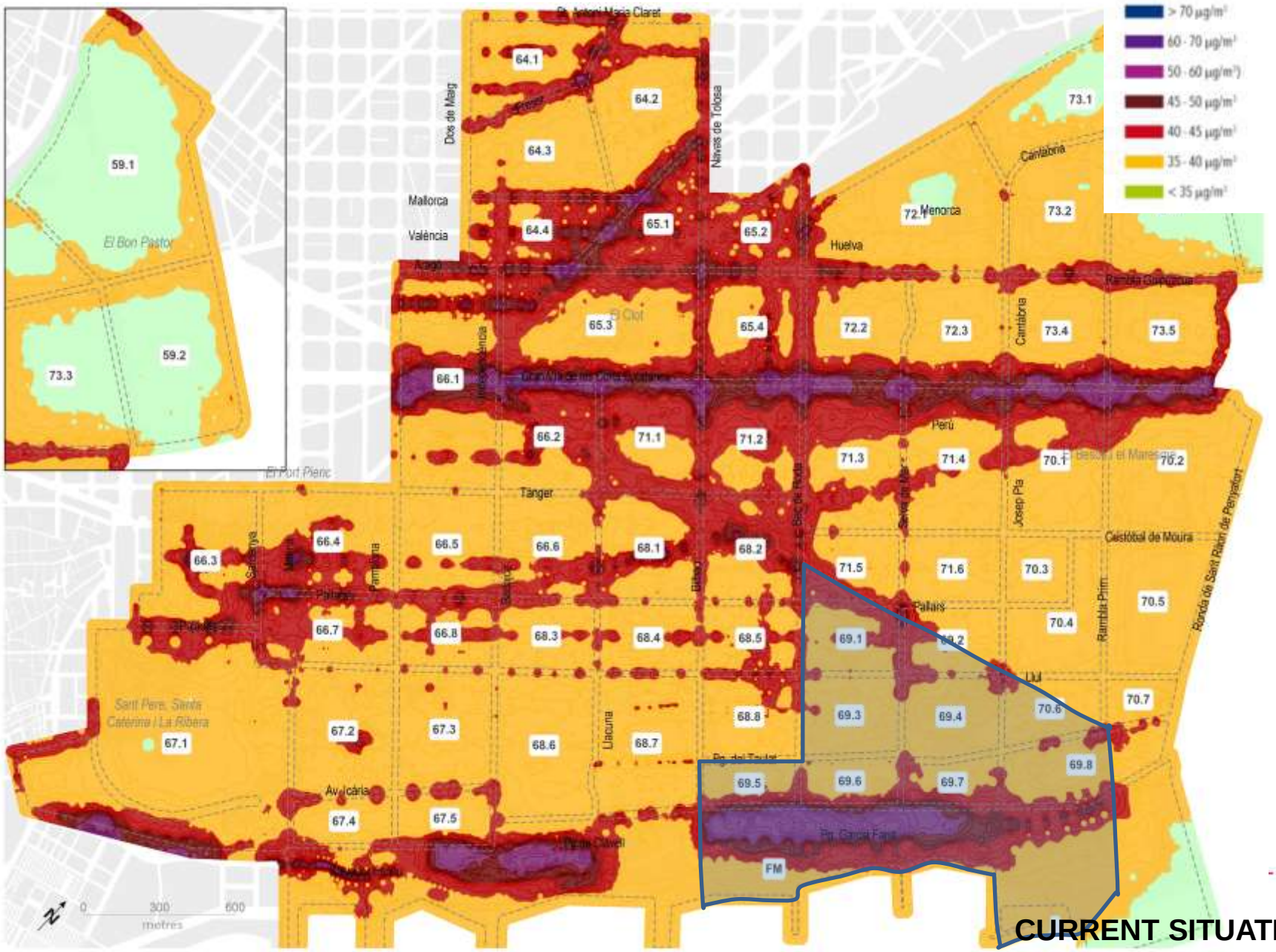
Air quality

Average Annual NO2



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Air quality

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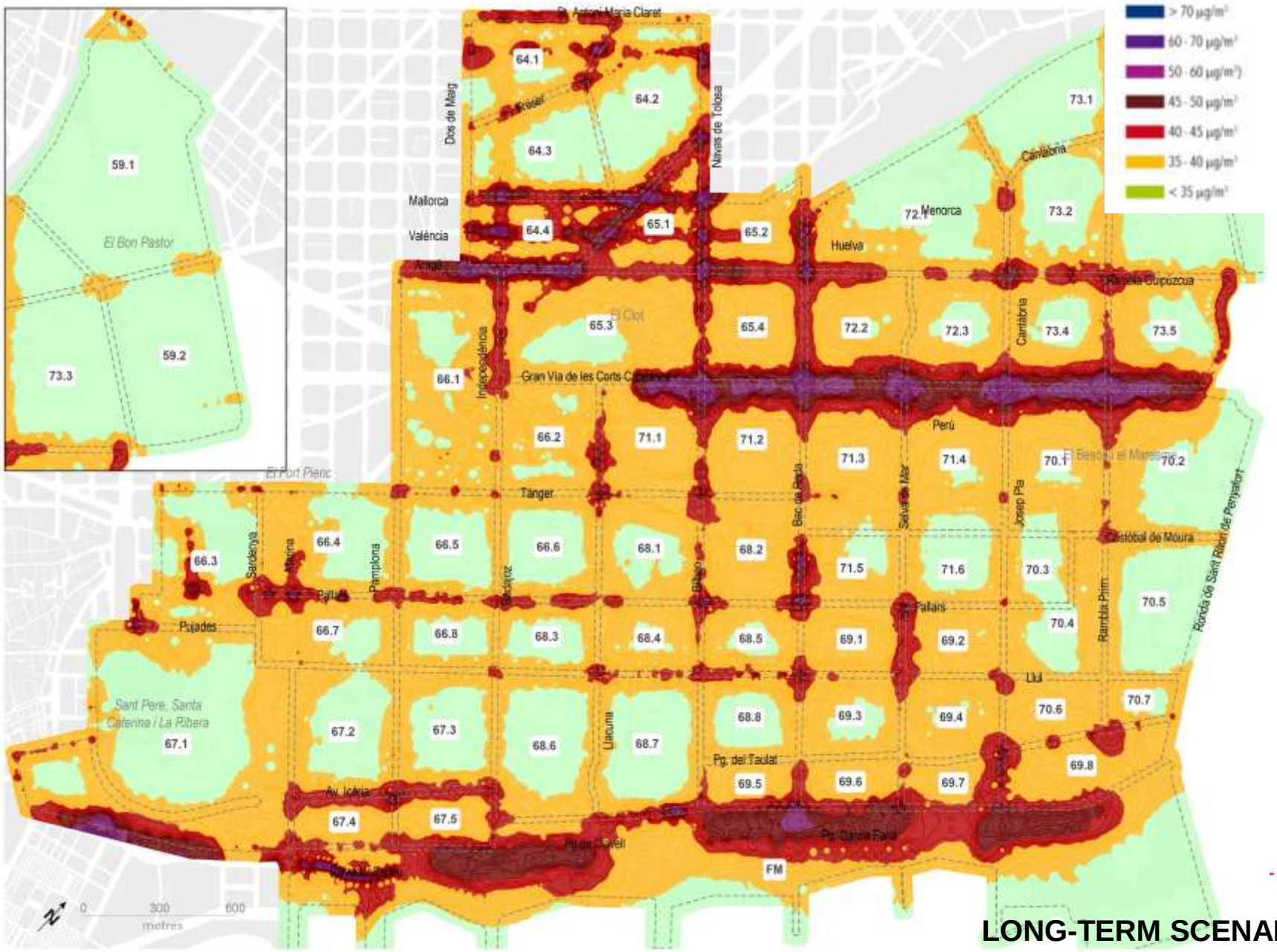

LONG-TERM SCENARIO

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Street ranking
10 kph streets

Pedestrian network
B.02 Space for pedestrians (with respect to total street space)

Space for pedestrians-space for residents
Total surface area (ha)

Street accessibility
According to width of pavements and gradient

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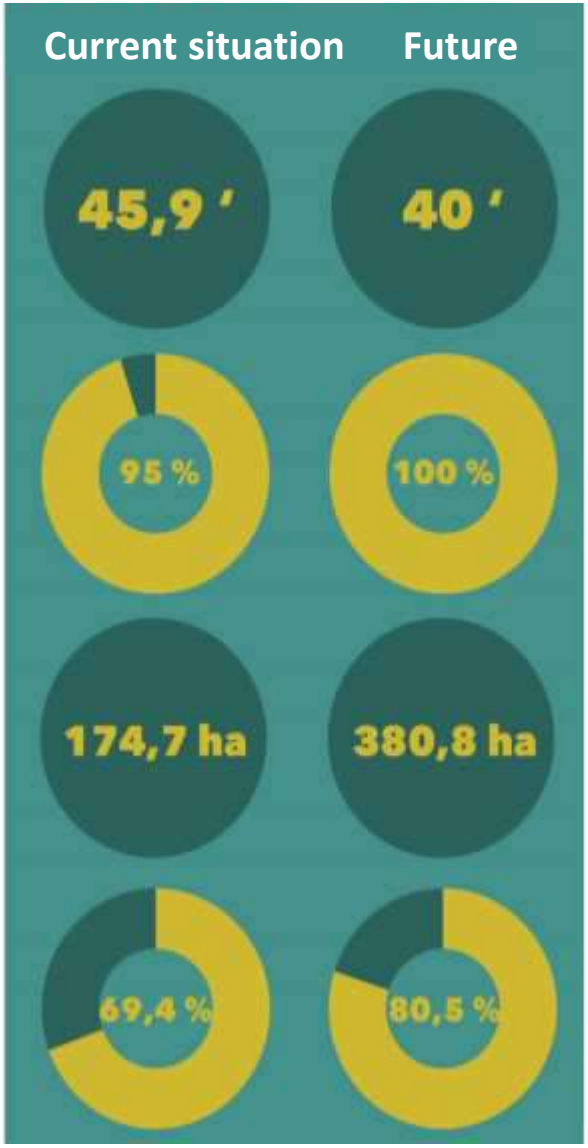
Bus network accessibility
Average travelling time between St. Martí and the rest of the city

Proximity of bicycle network
Population living within 300 m

Potential green areas
Total surface area (ha)

Parking
Off-road spaces



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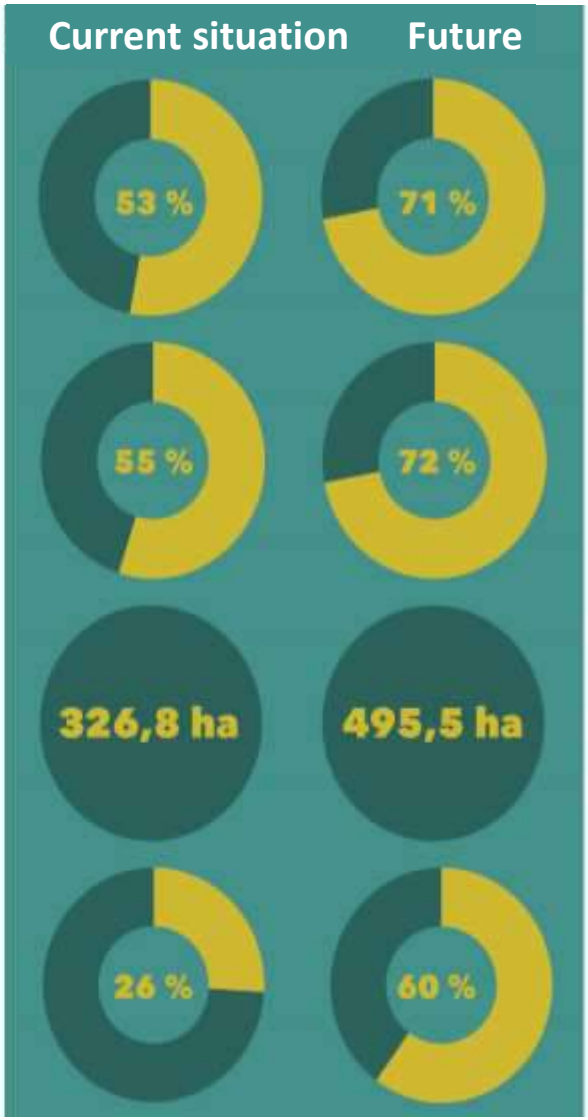
Air quality
Population exposed to admissible levels

Acoustic comfort
Population exposed to admissible levels (<65dBA)

Relaxation area
Total surface area (ha)

Habitability of public areas
Lineal metres with appropriate habitability



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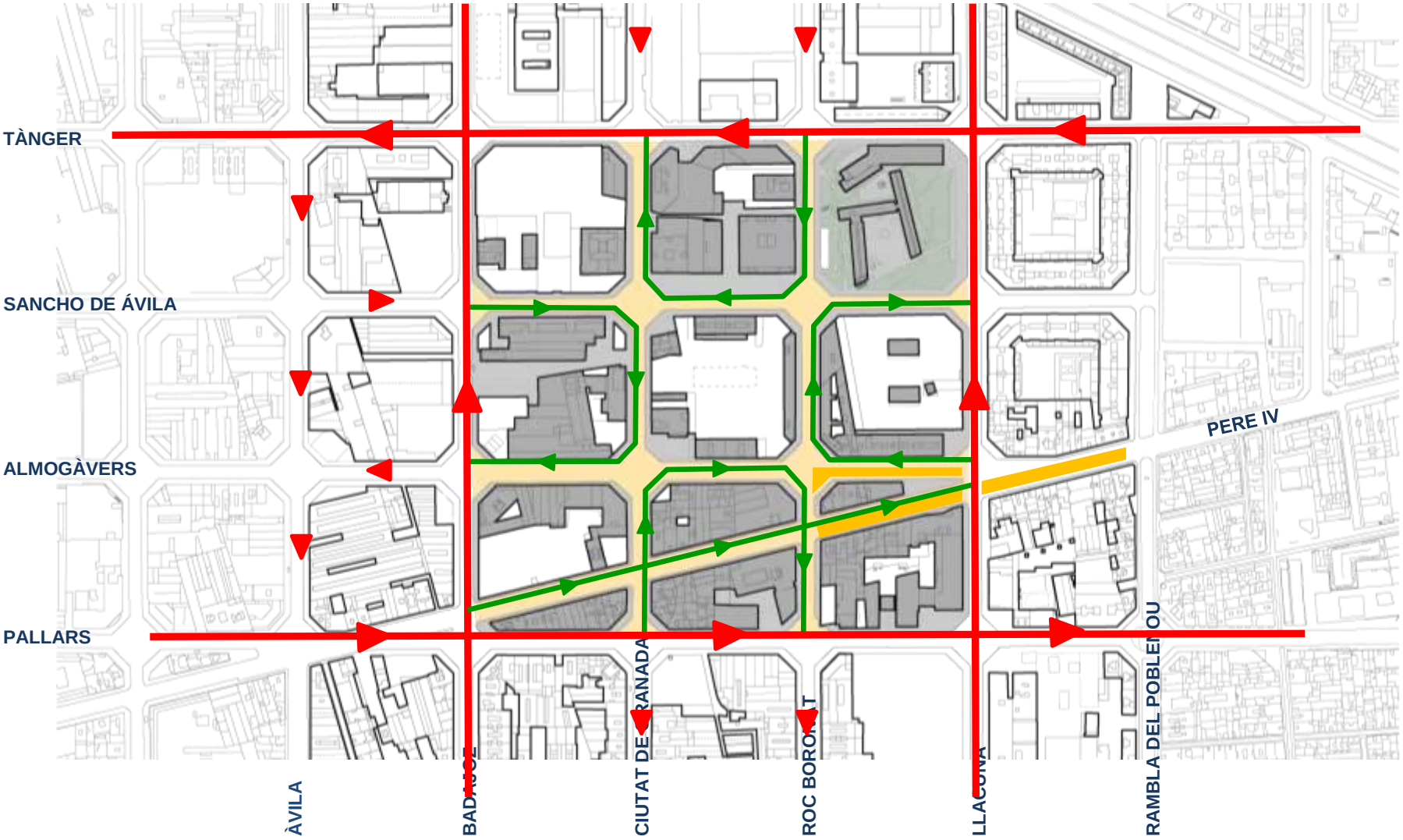
CURRENT SITUATION



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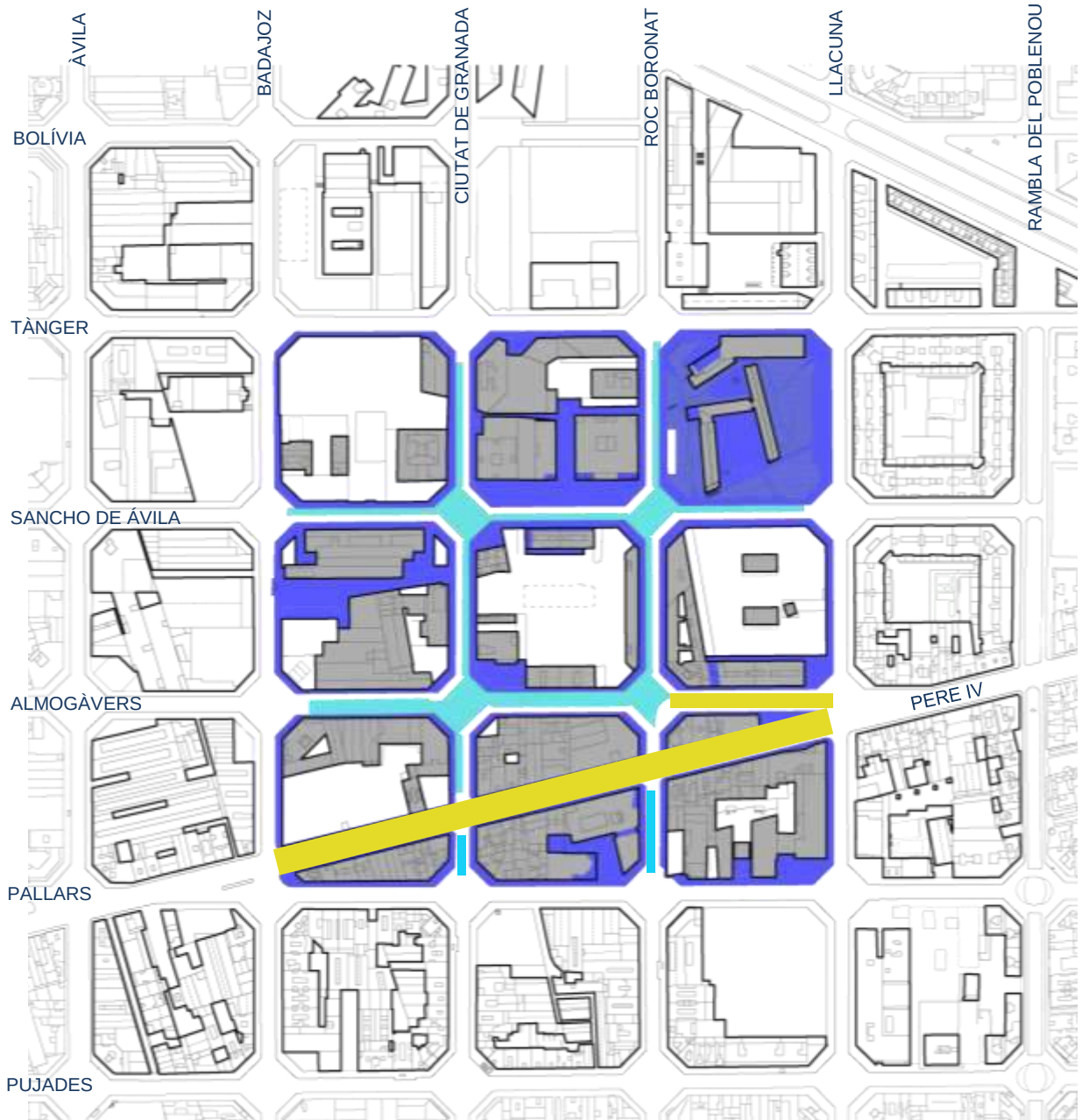
STREETS AND PUBLIC AREAS



IMPLEMENTED MEASURES

-8,600 m² of area regained for pedestrians

MEASURES PLANNED AND UNDER CONSIDERATION

-School route

-Habitability improvements: Installation of trees and benches.

-Location of various proposed uses (areas for relaxation, eating, doing sport, games, vegetable gardens, etc.)

-Proposed distribution of furniture and uses, to validate and work with local residents

-Drafting a community plan to prevent any possible conflicts of use

Planned space for pedestrians

Space gained for pedestrians, structural and

Space gained for pedestrians

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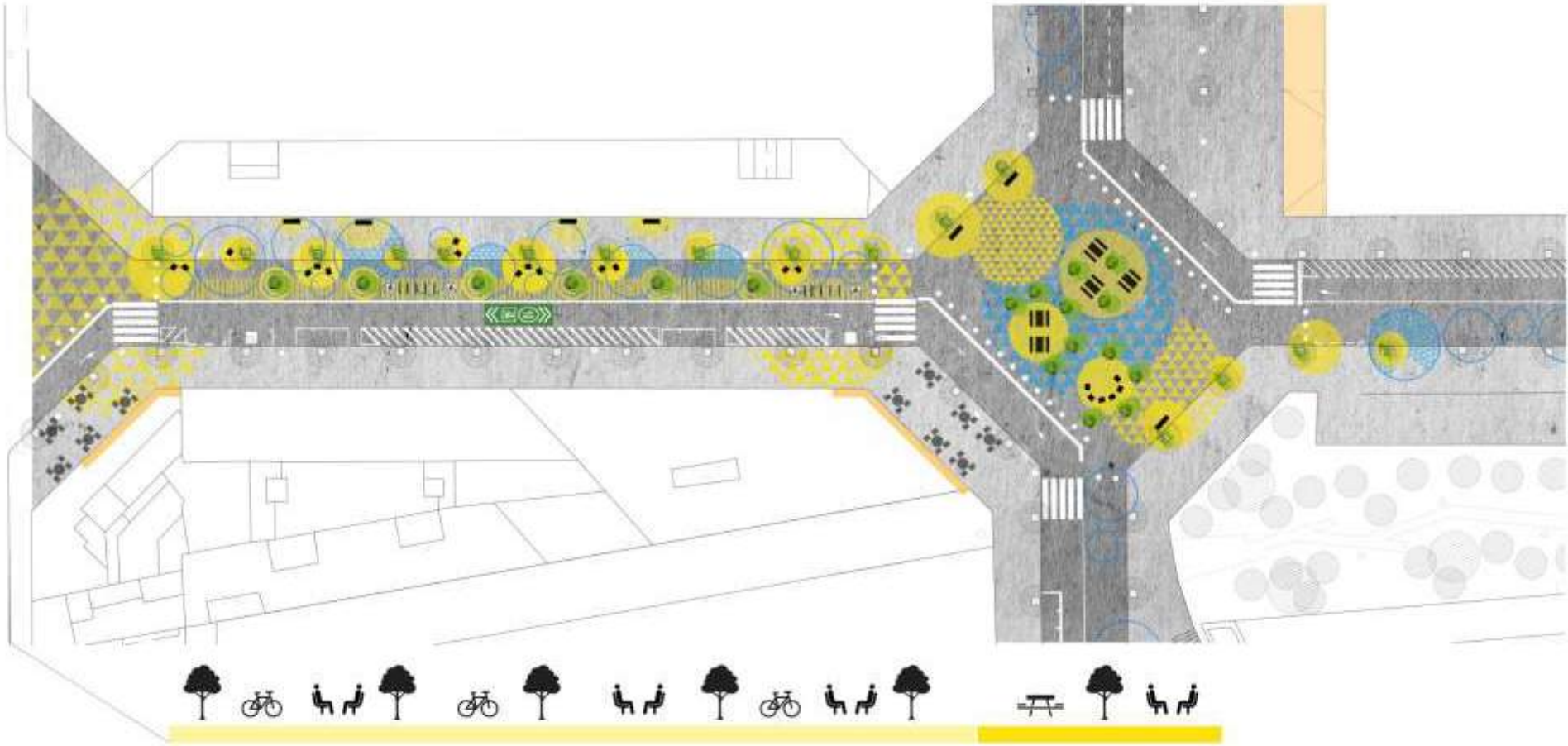
EXAMPLE: CIUTAT DE GRANADA Relaxation area



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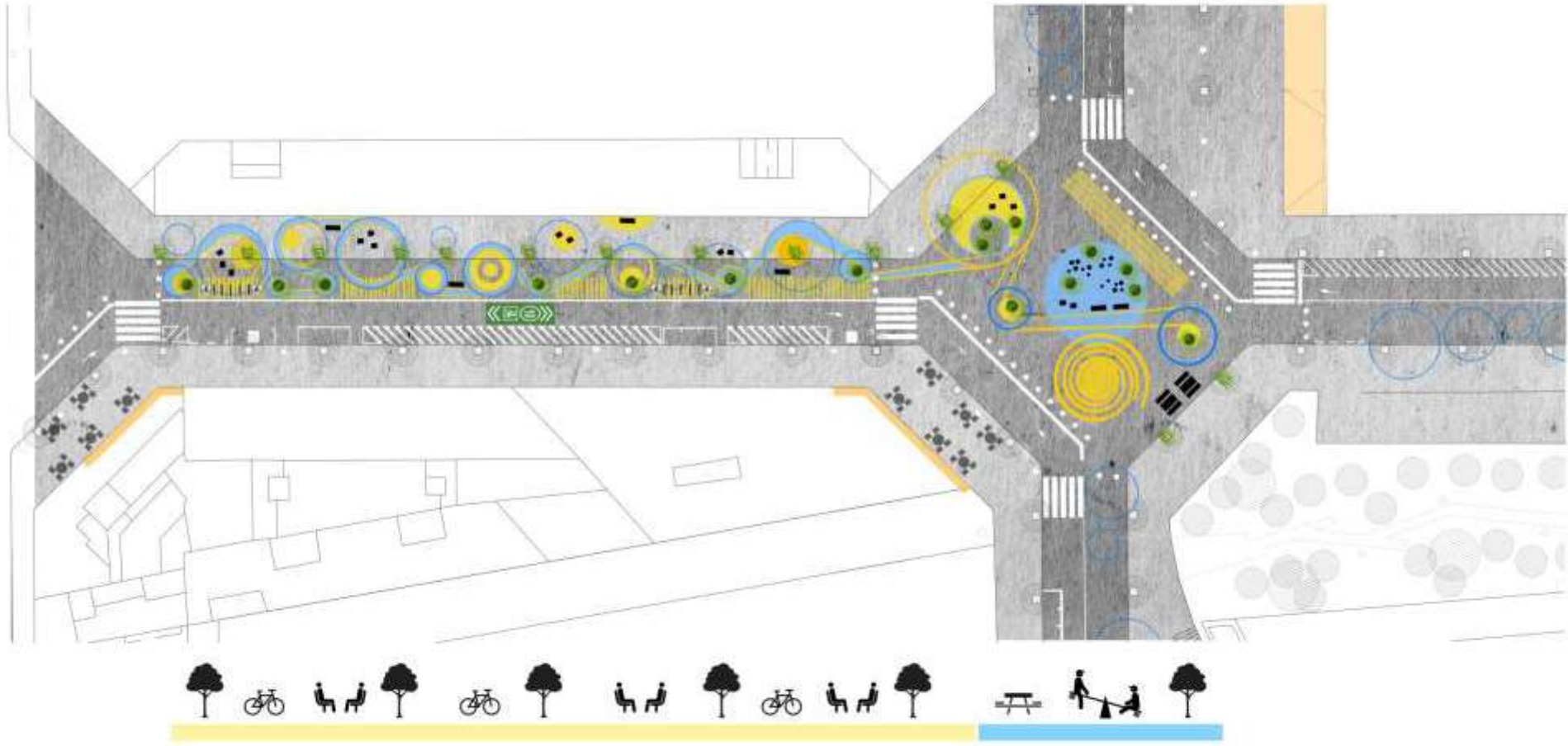
EXAMPLE: CIUTAT DE GRANADA Children's area



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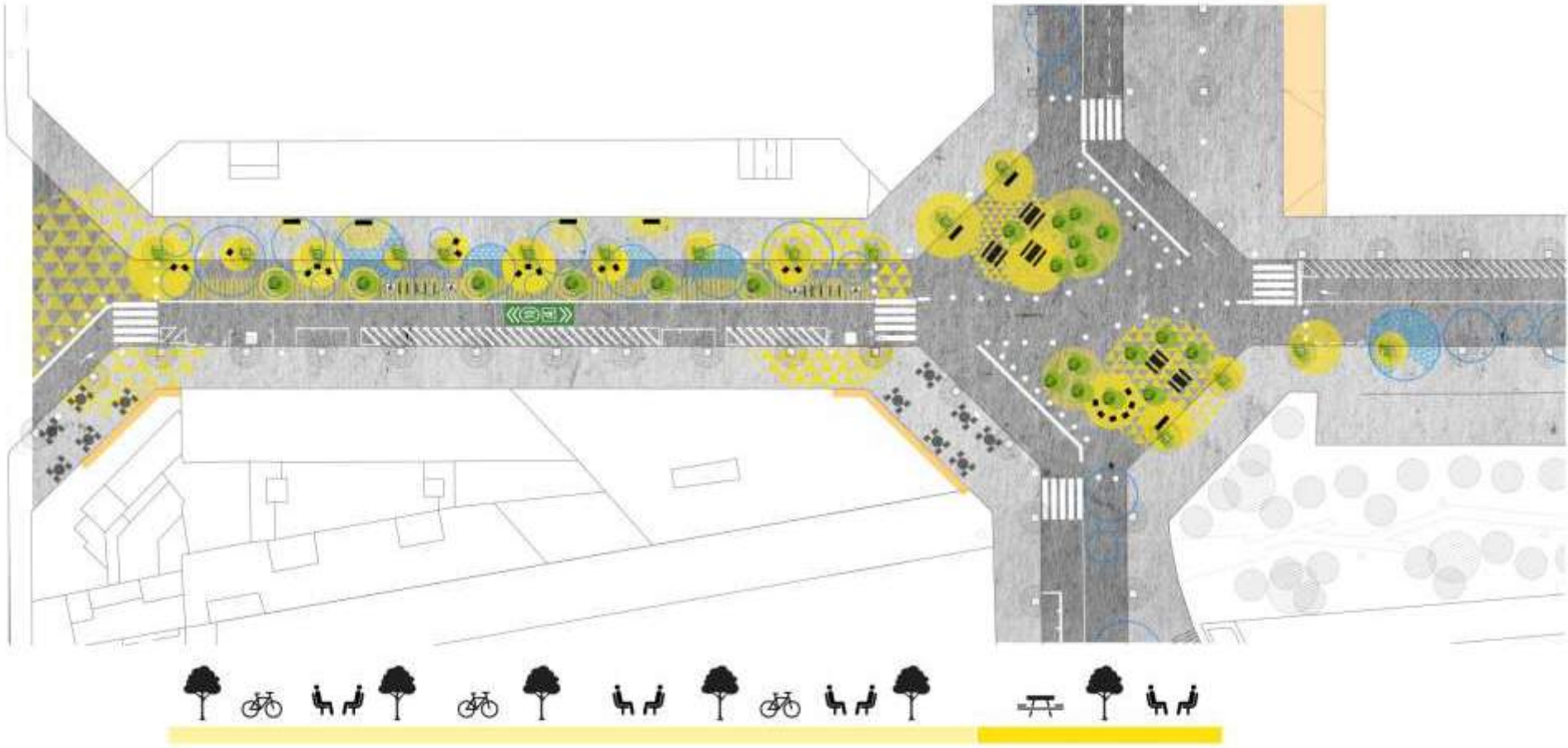
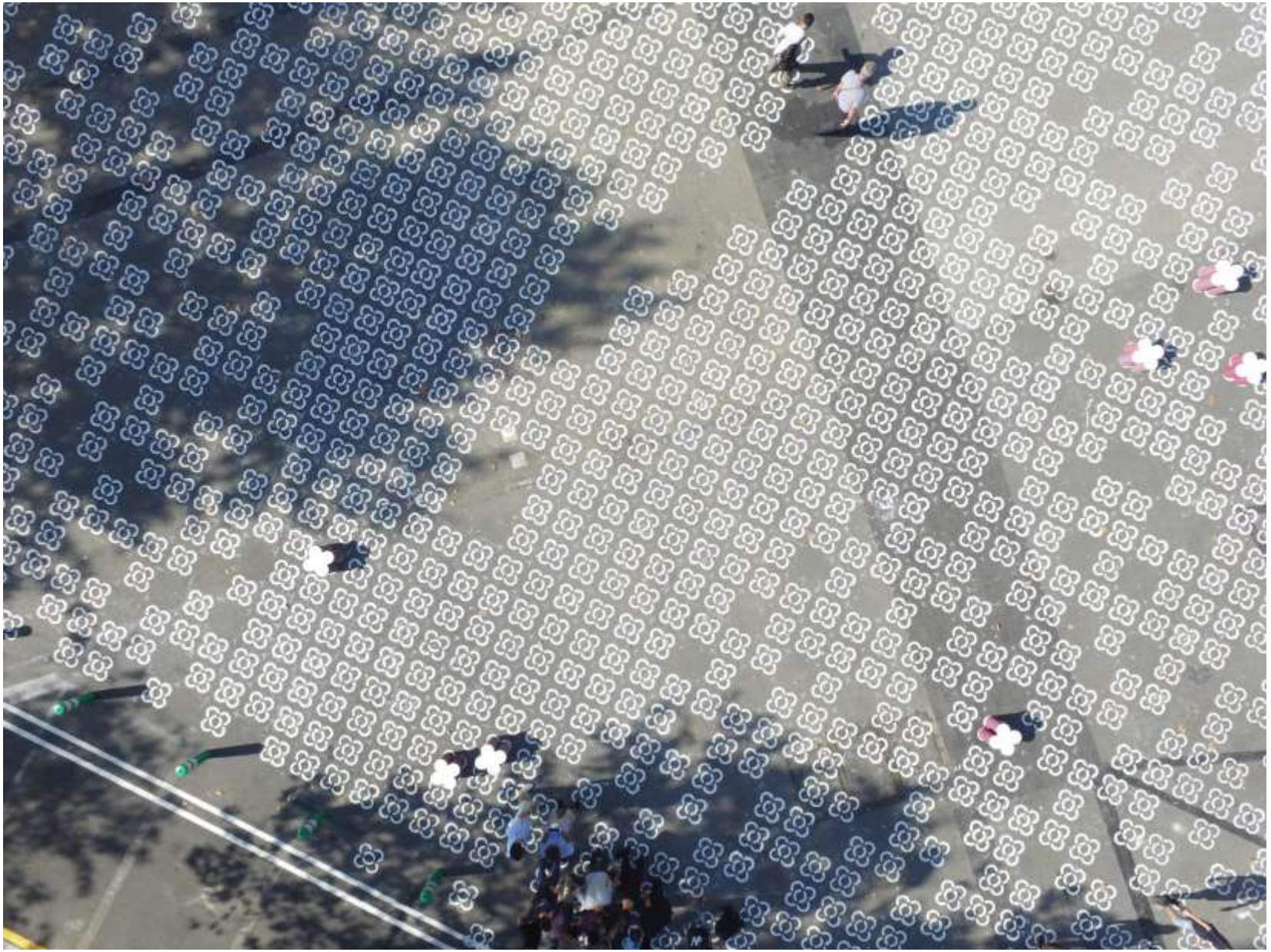
EXAMPLE: ROC BORONAT OR ALMOGÀVERS

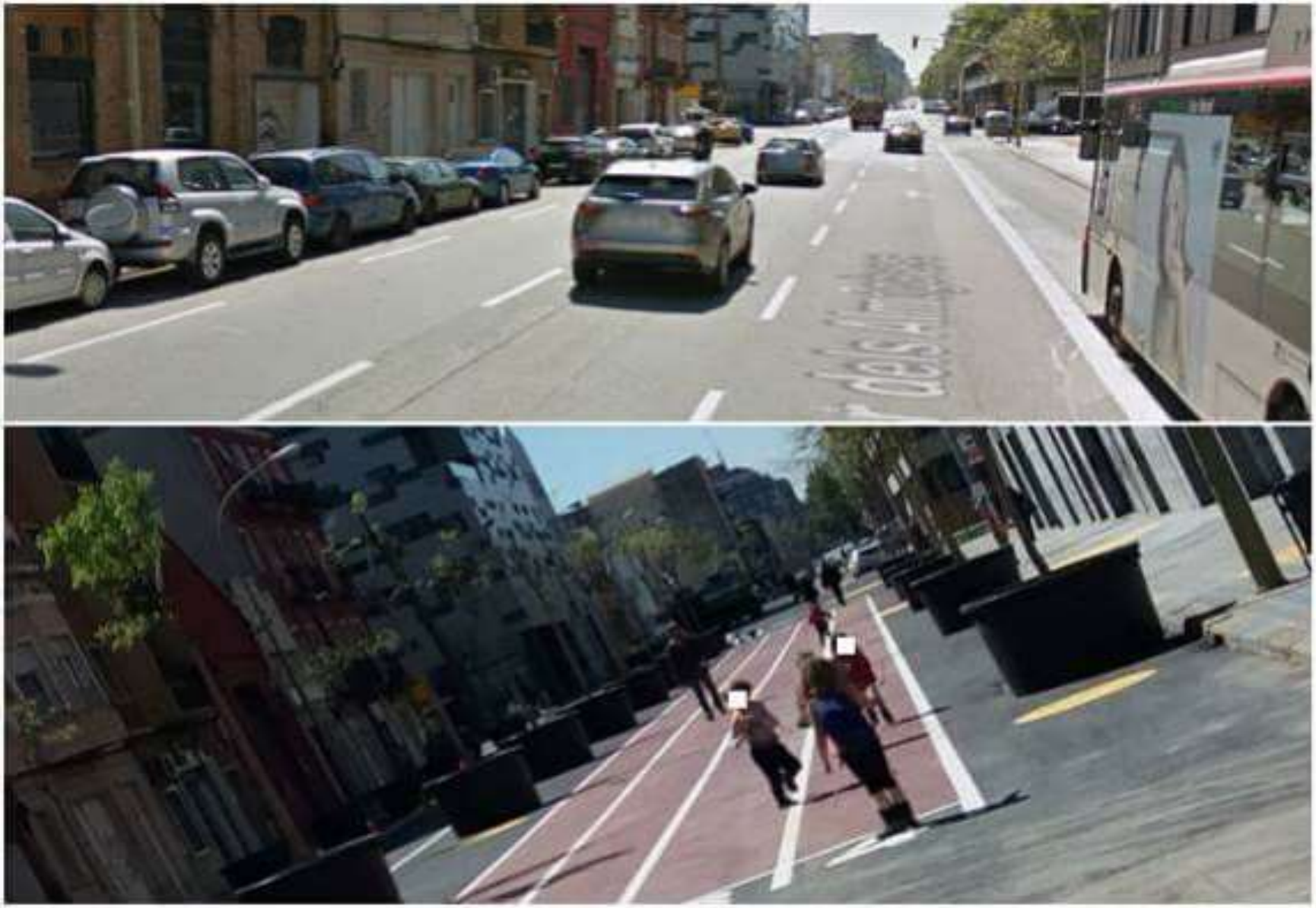


S U P E R I L L A

SEAT
NOU SEAT
ALHAMBRA



SÍ
YES



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