

**World Carfree Network
Towards Carfree Cities IX**

York, June 2010

Superblocks

an instrument for open space
improvement

B
ECOLOGIA
N

Agència
d'Ecologia Urbana
de Barcelona

The proposal is based on changing streets' hierarchy:

Superblocks are an alternative solution developed by the Urban Ecology Agency of Barcelona.

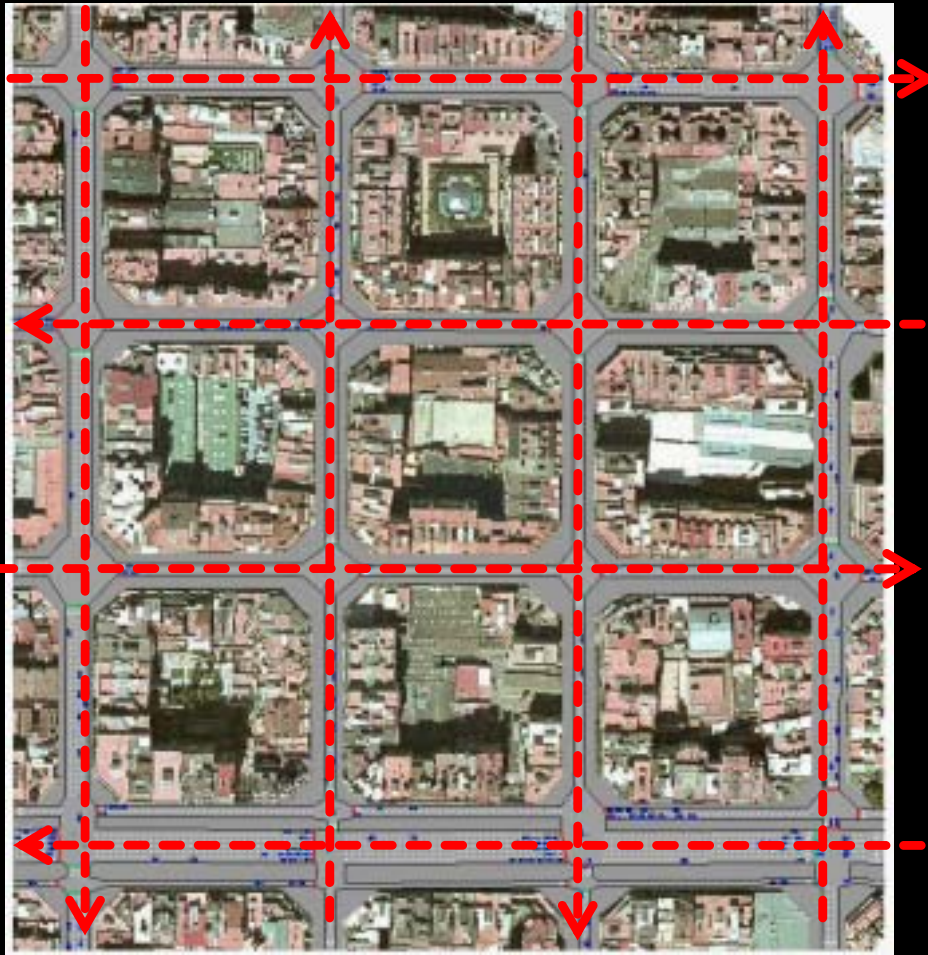
-Basic vehicular network streets

In current networks, motorized private vehicle has preeminence, resulting in impacts on human health and quality of public space. The objective is to reorganize mobility networks in order to free public space and segregate them according to

-Interior streets

their flux requirements with priority for pedestrian and bicycle

Current Mobility Model



Basic motorized network

1. Poor occupation mobility networks alternative to motor vehicle
2. Complicated relationship between cars, public transportation, bicycles and pedestrians.
3. Open spaces are predominated by car use.

Superblock Mobility Model



→ 01 Basic motorized network is redefined

→ ● 02 Implementation of automated access systems for all urban services and residents' vehicles

→ ● 03 Change of the streets' ways in order to pacify the interior traffic speed.

→ **P** 04 Increase parking for residents off road to free open space on streets.

Basic vehicle's network streets



vehicles
and
parking

Absorbs main motorized traffic
Public Parking lots on streets and underground

merchandise
delivery

Access to central logistical distribution centers (hubs)

Public
transportation

Location of bus stops ensuring proximity of population.

Superblock's interior streets



bicycles

Enable proximity loan points
intermodal with public
transportation

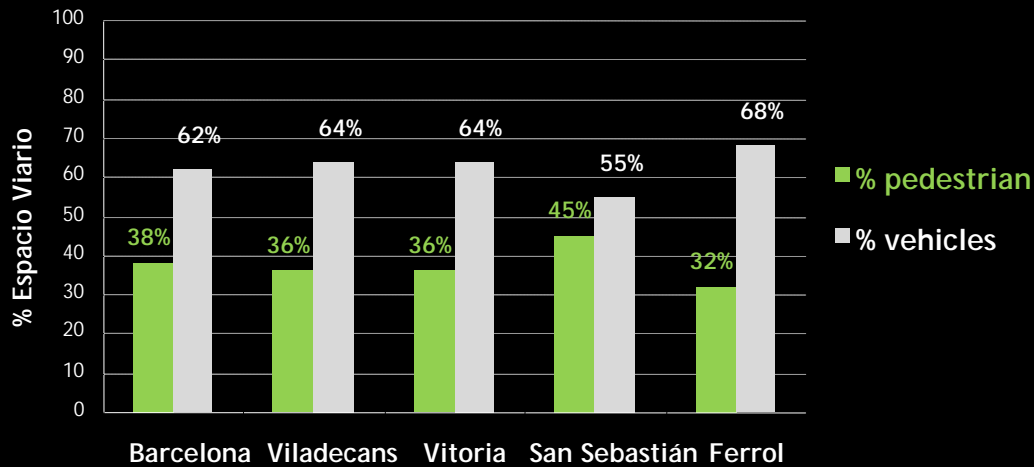
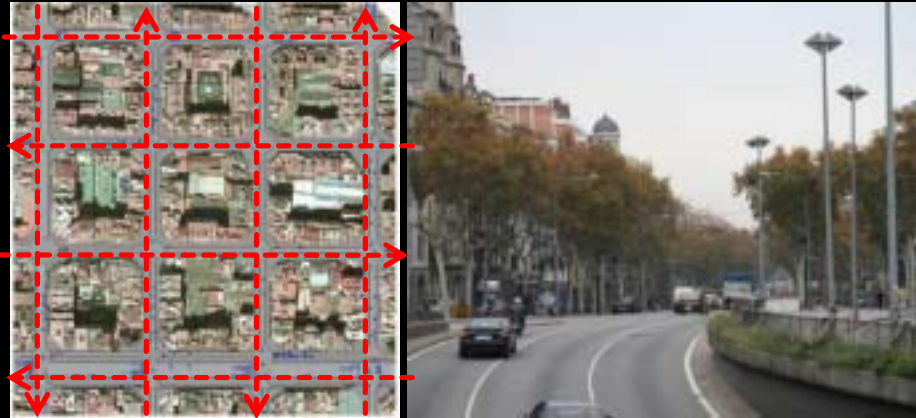
pedestrians

Pacification of traffic
Accessible design configuration
Continuity of pedestrians routes
Acoustic and thermal comfort
levels
Healthier air

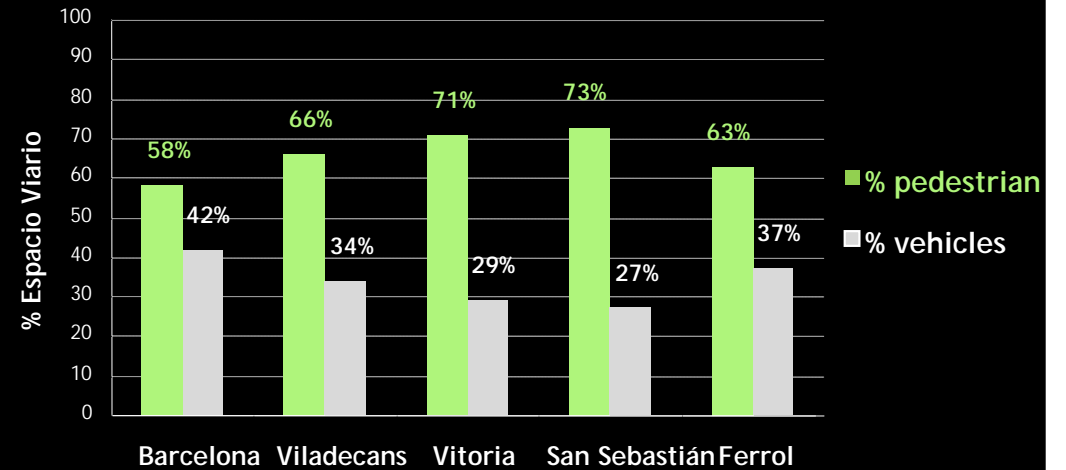
vehicles

Allows access to resident
vehicles, municipal management
services, delivery and
emergencies.

The results: more space for pedestrians



Public open space distribution on Spanish cities
Current scenario



Public open space distribution on Spanish cities
Superblock scenario

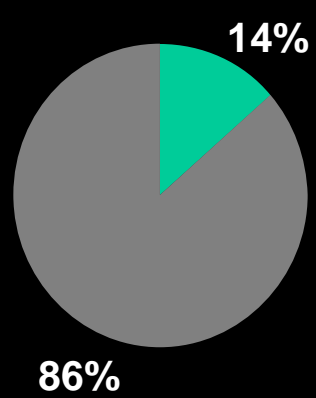
Barcelona, Spain

(1.600.000 hab.)

Superblocks, an alternative
proposal for the future



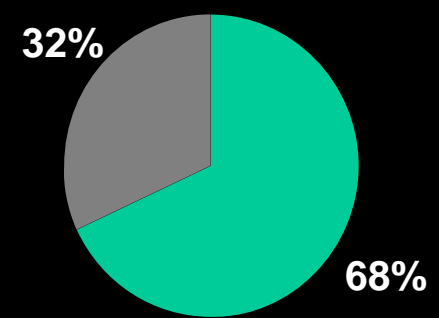
Current scenario

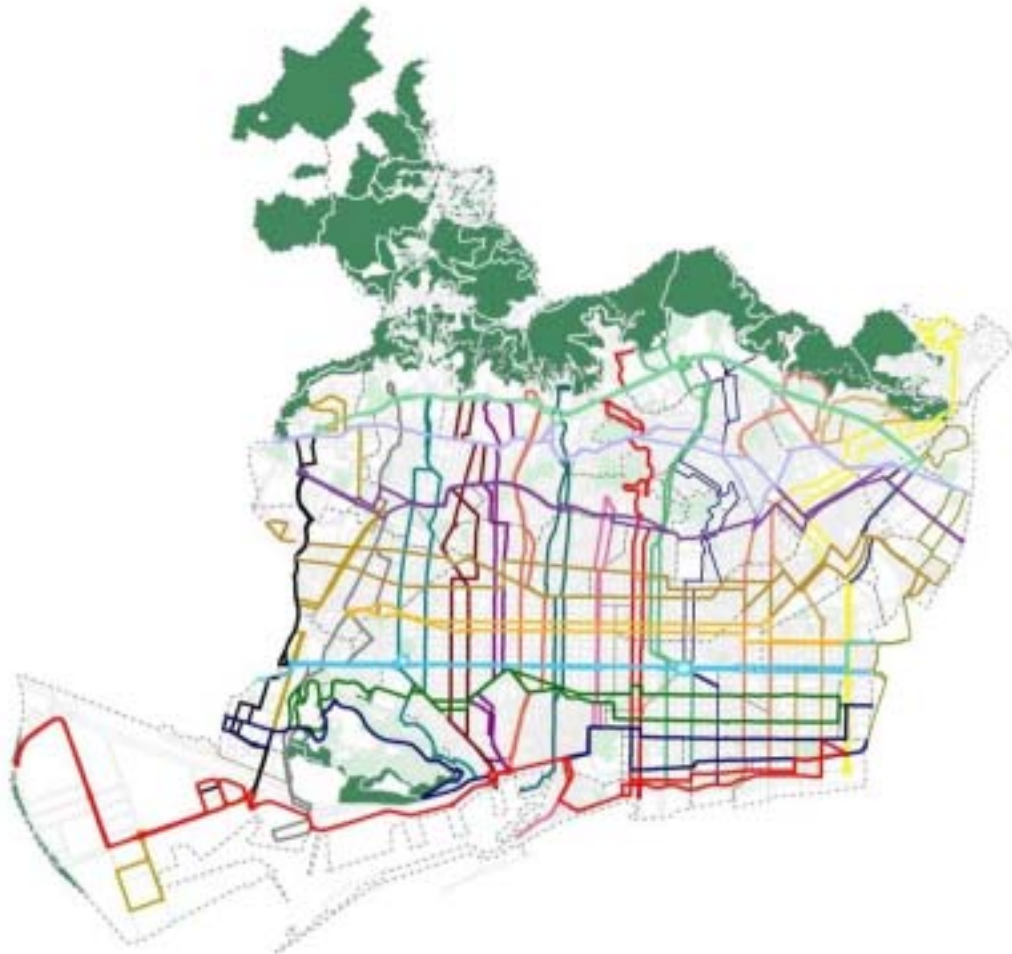


Basic vehicle's network

- Vehicles' network
- Pedestrians' network

Superblock scenario





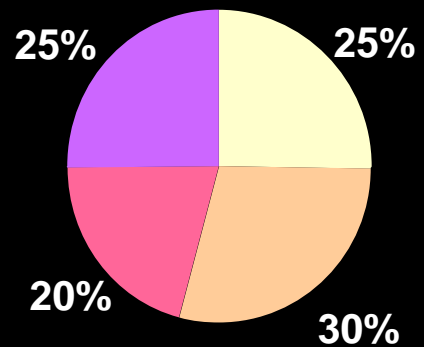
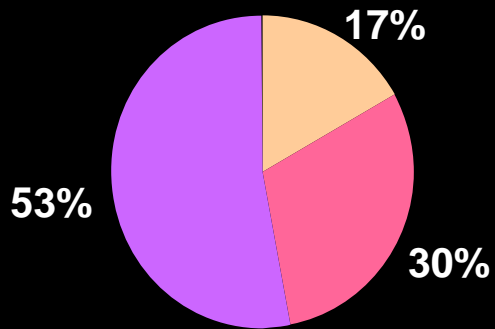
Current scenario

Superblock scenario



Public transportation network

- < 35 minuts
- 40 min - 45 min
- 35 min - 40 min
- > 45 min



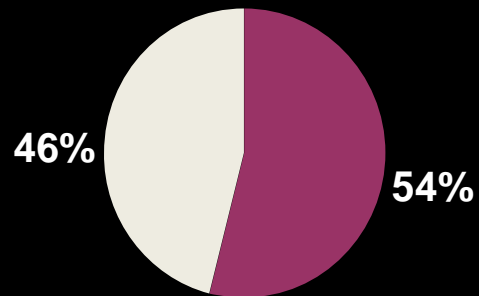


Current scenario

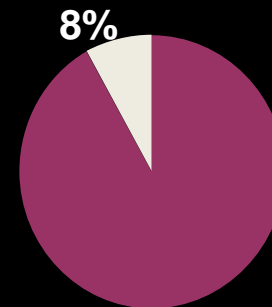
Superblock scenario



Bicycle network



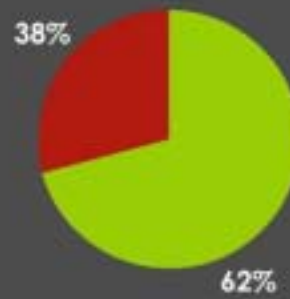
■ Accessibility in < 300m ■ Accessibility in > 300m



92%



Superblock scenario



- Streets with > 40 µgr/m³
- Streets with < 40 µgr/m³

NO_x

Air Quality

Superblock scenario



Superblock scenario

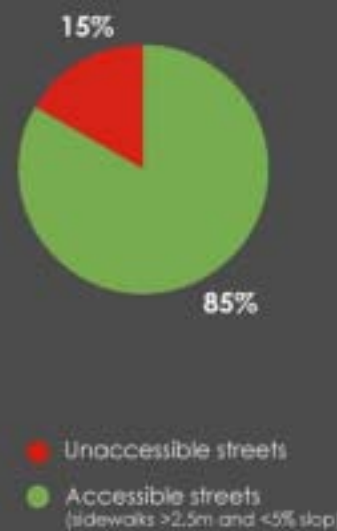


- Streets with > 65dB Leq
- Streets with < 65dB Leq

dB

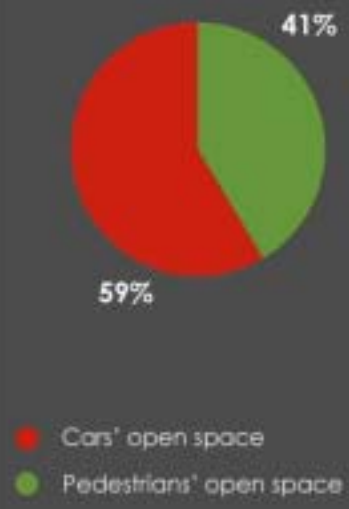
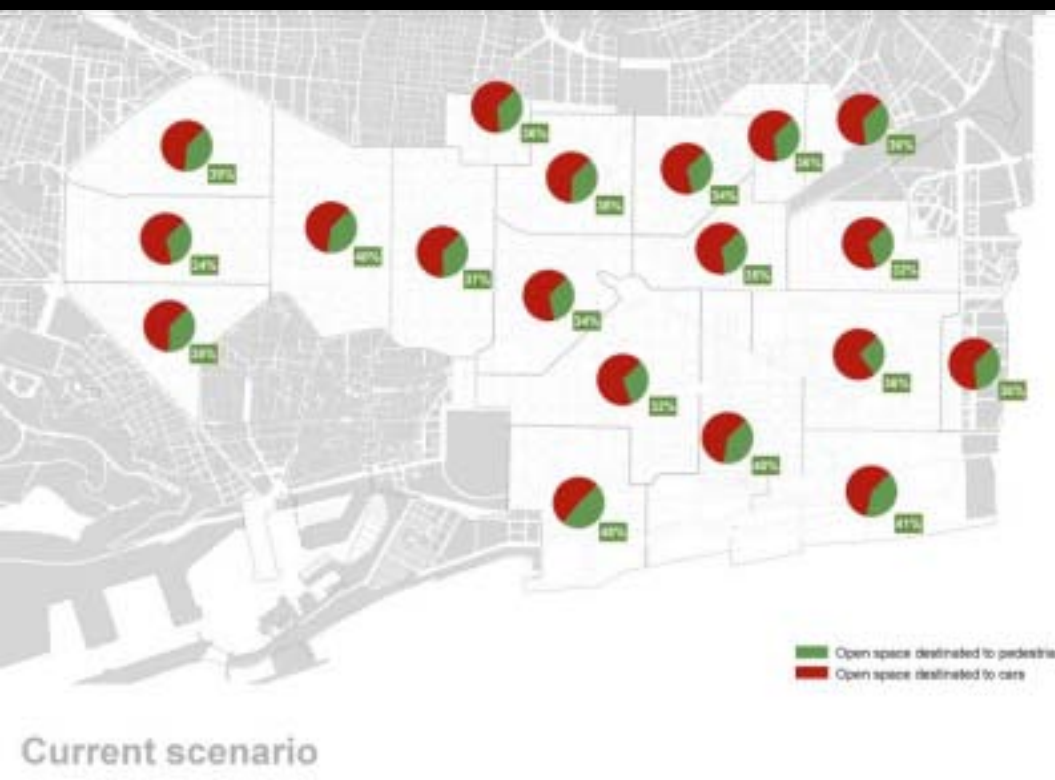
Sound level

Superblock scenario



Accessibility

Superblocks scenario



Open space distribution

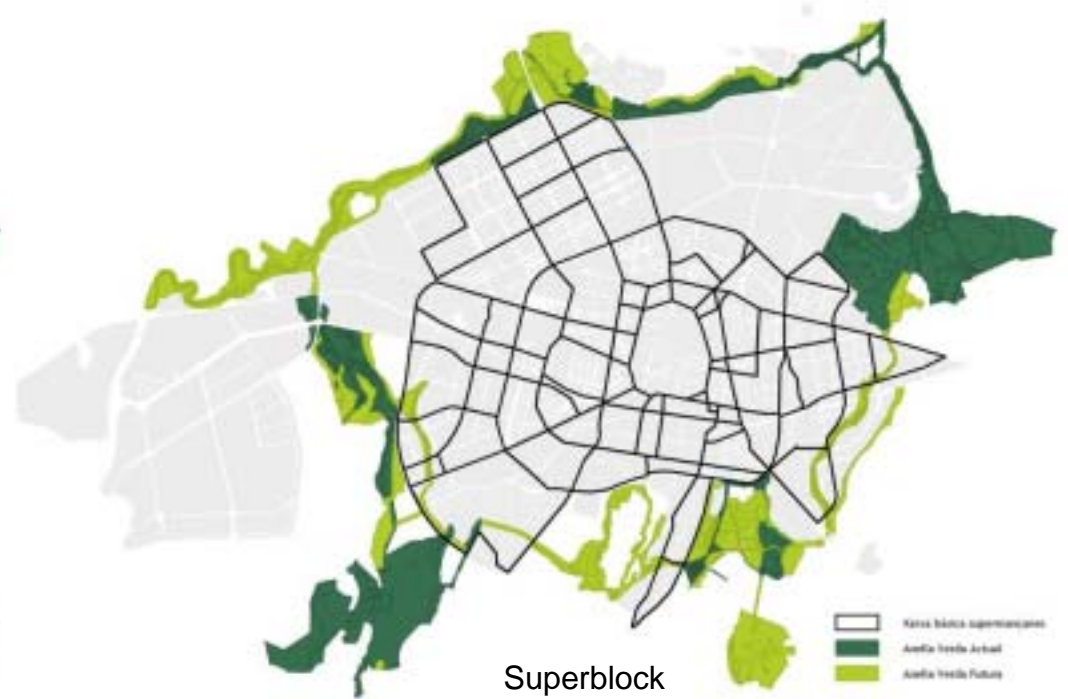


Superblocks scenario

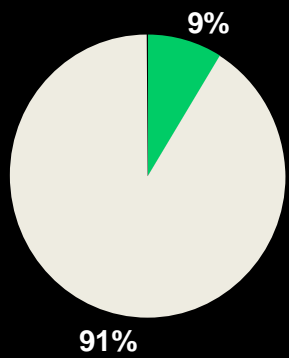
Vitoria-Gasteiz, Spain

(234.000 hab.)

City's future scenario with
superblocks



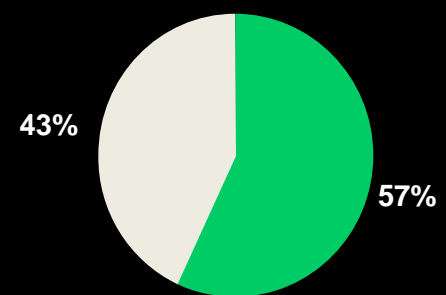
Current scenario



Basic vehicle's network

- Vehicles' network
- Pedestrians' network

Superblock scenario



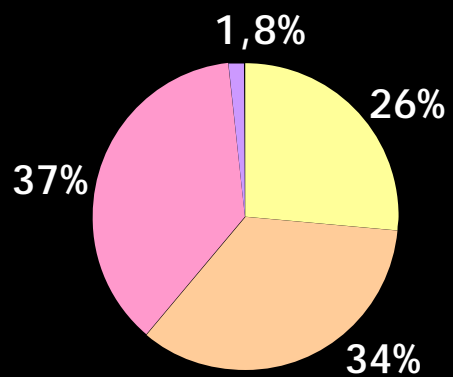
- Línia 1 (Catalunya)
- Línia 2 (Catalunya)
- Línia 3 (Barcelona)
- Línia 4 (Barcelona)
- Línia 5 (Barcelona)
- Línia 6 (Barcelona)
- Línia 7 (Barcelona)
- Línia 8 (Barcelona)
- Línia 9 (Barcelona)
- Línia 10 (Barcelona)
- Línia 11 (Barcelona)
- Línia 12 (Barcelona)
- Línia 13 (Barcelona)
- Línia 14 (Barcelona)
- Línia 15 (Barcelona)
- Línia 16 (Barcelona)
- Línia 17 (Barcelona)



- Línia 1 (Catalunya)
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- Línia 3 (Barcelona)
- Línia 4 (Barcelona)
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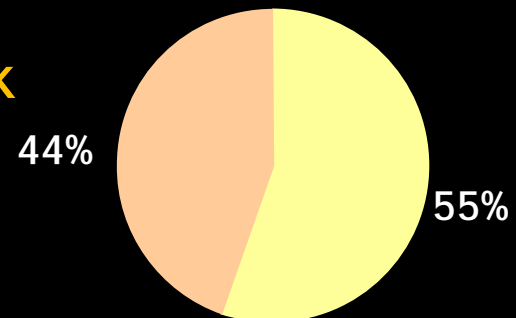
Current scenario

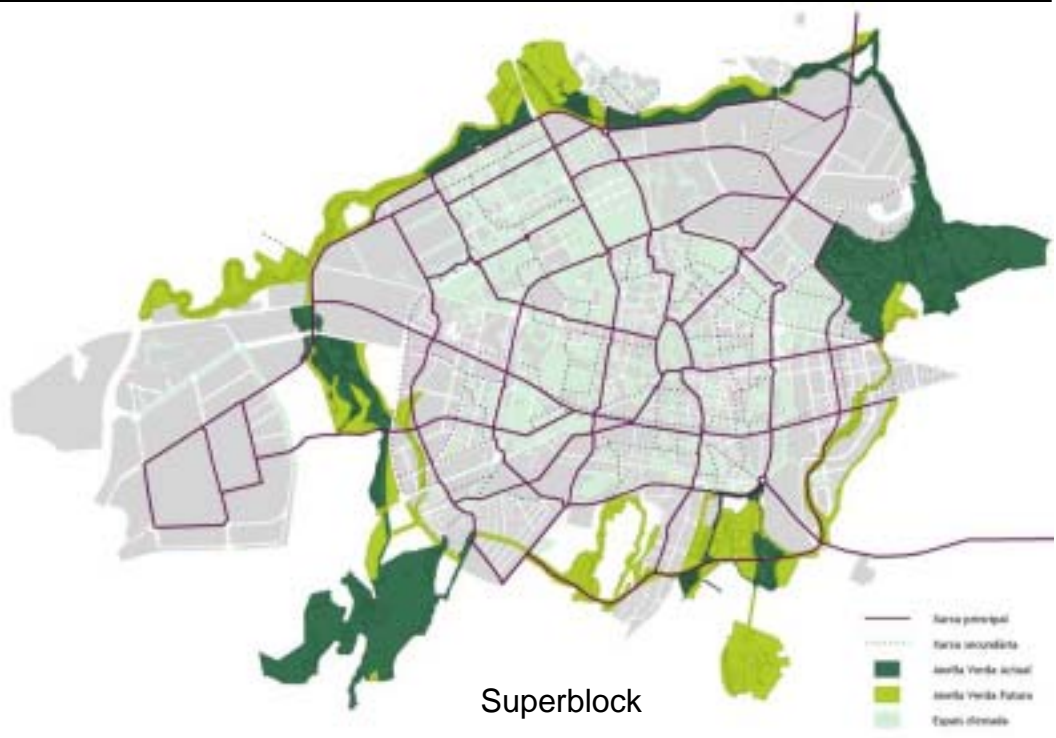


Public transportation network

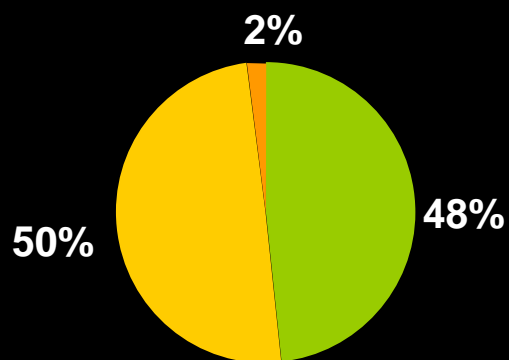
- < 35 minuts
- 35 min - 40 min
- 40 min - 45 min
- > 45 min

Superblock scenario





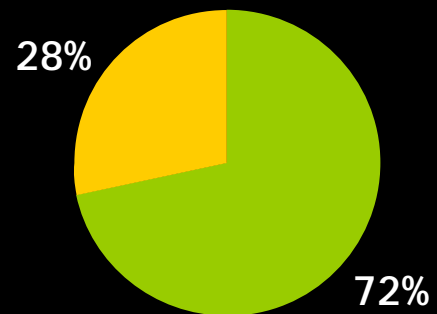
Current scenario



Bicycle network (global accessibility)

- < 10 min.
- 10 i 15 min.
- 15 i 20 min.

Superblock scenario



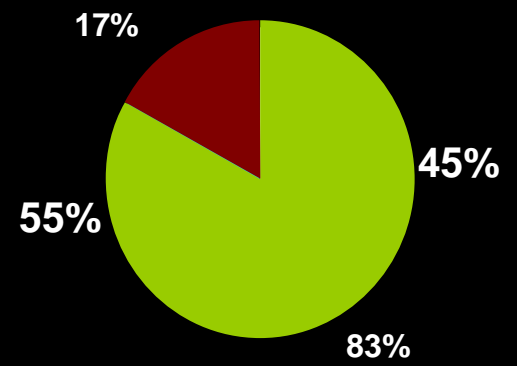


Current



Superblock

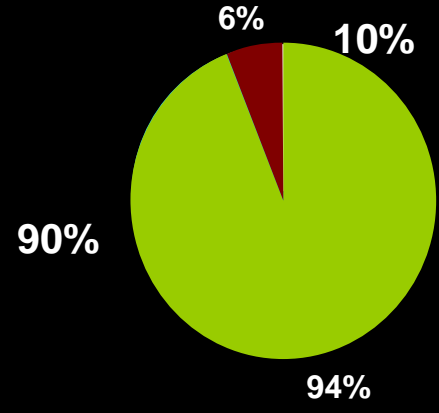
Current scenario



Pedestrians' network (coexistence with car network)

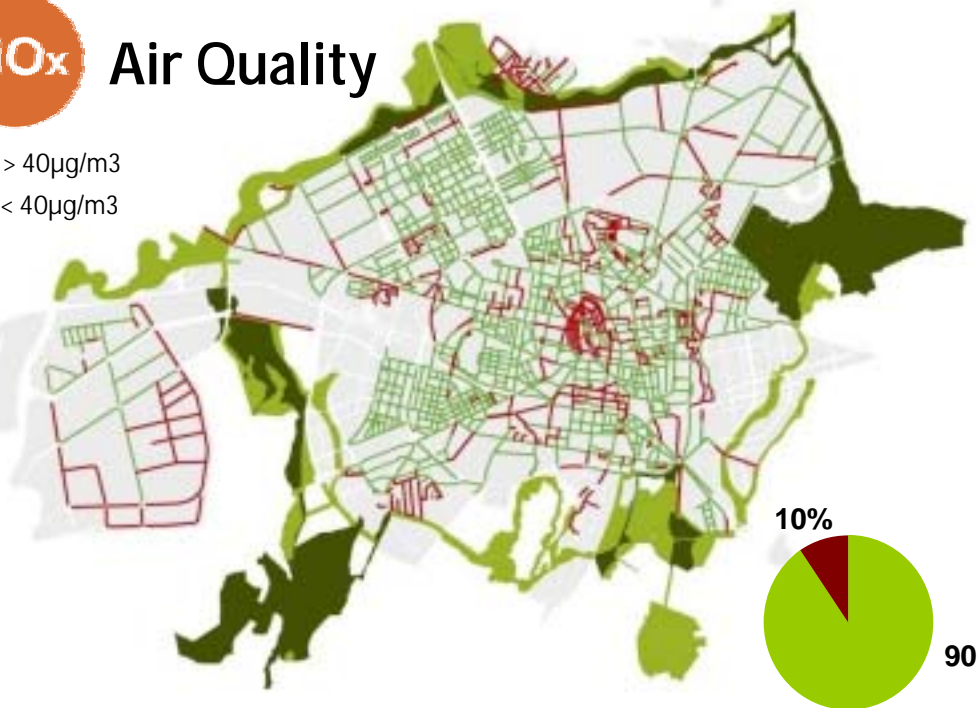
- Accessible streets
- Pedestrian paths without priority
- Possible streets
- Accessible streets with priority

Superblock scenario



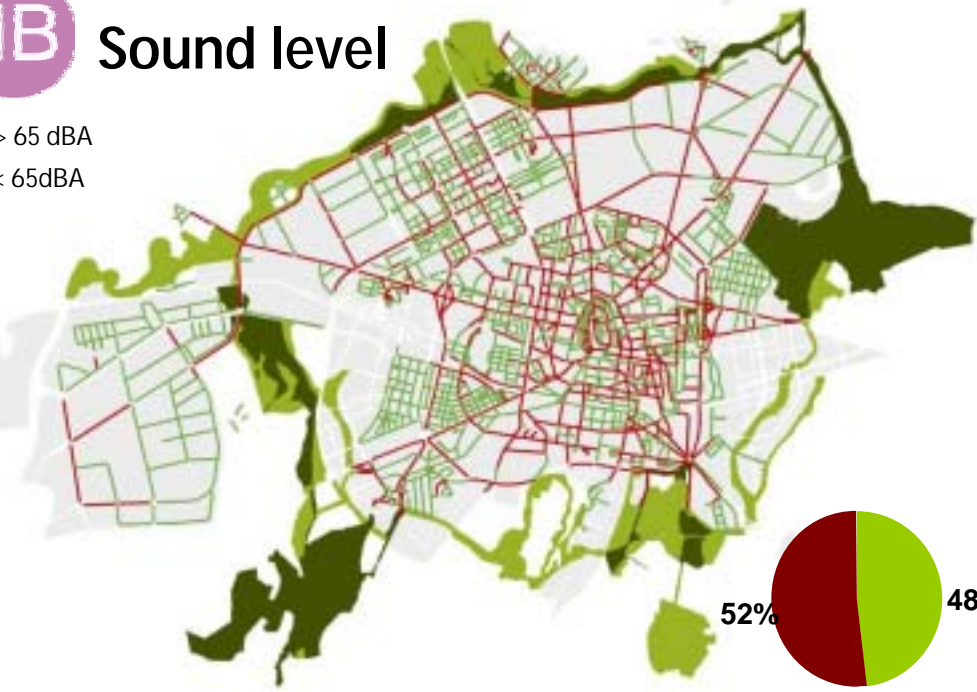
NO_x Air Quality

- > 40µg/m³
- < 40µg/m³



dB Sound level

- > 65 dBA
- < 65dBA



Reorganize mobility networks with superblock's model

Superblocks to improve the functionality of mobility
Barcelona and Vitoria currently count with quality in
transportation reducing emissions to atmosphere and
public space, however, a model of public space based
on superblocks would allow to significantly increase
This would also help to create healthier and pacified
the levels of urban livability.
It also allows to increase people's creative and related civic
activities on neighborhood scale.