

EUROPEAN CITIES' ACTIONS AND CHALLENGES IN IMPROVING AIR QUALITY

BARCELONA

Júlia Camps Farrés – jcampsf@bcn.cat Jordi Remírez Carol - jremirez@bcn.cat



CONTEXT IN BARCELONA













European Union (Directive 2008/50/EC)

Supranational level

National level

Government of Catalonia

Central Government (Spain)

Metropolitan Area of Barcelona (AMB)

Metropolitan Transport Authority (ATM)

Barcelona City Council

Barcelona Public Health Agency

Regional level

Local level

Ajuntament de Barcelona

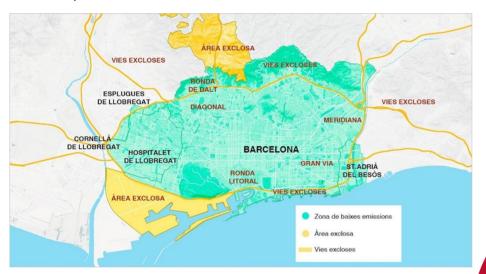
CHALLENGES IN IMPROVING AIR QUALITY

- ➤ Legal challenges in EU exceeding legal limits (Directive 2008/50/EC).
- New WHO guidelines.
- ➤ Alignment between different departments, agencies and governments around air quality targets.
- ➤ Avoid possible fines from European Commission when exceeding legal limits (NO₂ in the case of Barcelona).
- ➤ Deliver impactful and integrated actions on air quality at a regional level to manage transboundary pollution.
- Improvement of public transport outside Barcelona (Note that only 30% of fined vehicles in the LEZ are registered in the city).
- Limited financial support, specially for small municipalities.
- > Deal with Stakeholders. COVID-19.
- Communication campaigns, very important in order to raise awareness on air quality.



THE LOW EMISSION ZONE

The LEZ was implemented in December 2020 as a result of vertical integration with the Catalan Government, the Metropolitan Area of Barcelona, the Metropolitan Transport Authority, Barcelona City Council, other small municipalities, etc.



- ✓ Weekdays, Monday to Friday, 7 am to 20 pm.
- ✓ Wide range of authorizated vehicles.
- ✓ Managed by the Metropolitan Area of Barcelona.

Challenges solved:

- ✓ Lack of financial and technical suport (small municipalities).
- ✓ Manage transboundary pollution
- ✓ Enlargement of the LEZ at a regional level.



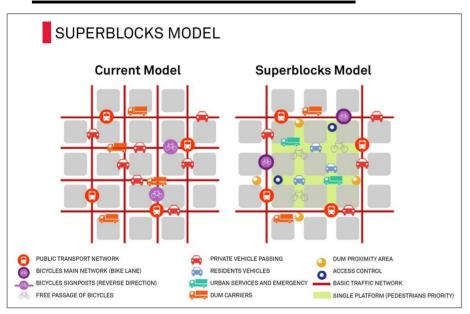




To highlight: the Spanish law 7/2021, of 20 May, on climate change and energy transition.



THE SUPERBLOCKS STRATEGY



The Superblock programme is taking a step ahead and becoming the street transformation model for the entire city, with the aim of reclaiming for citizens part of the space currently occupied by private vehicles.

The goal is to create a healthy, greener, fairer and safer public space that promotes social relations and the local economy.

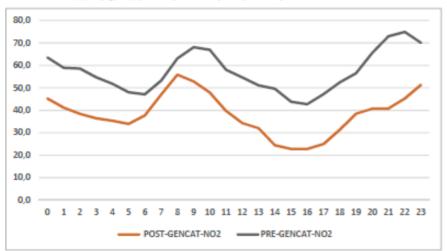


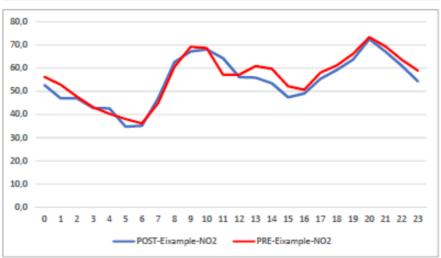




THE SUPERBLOCKS STRATEGY

Perfil diari de NO₂ (en μg/m³) per als períodes pre i post-implantació











THE SUPERBLOCKS STRATEGY

The Superblocks strategy in the central district of Barcelona:



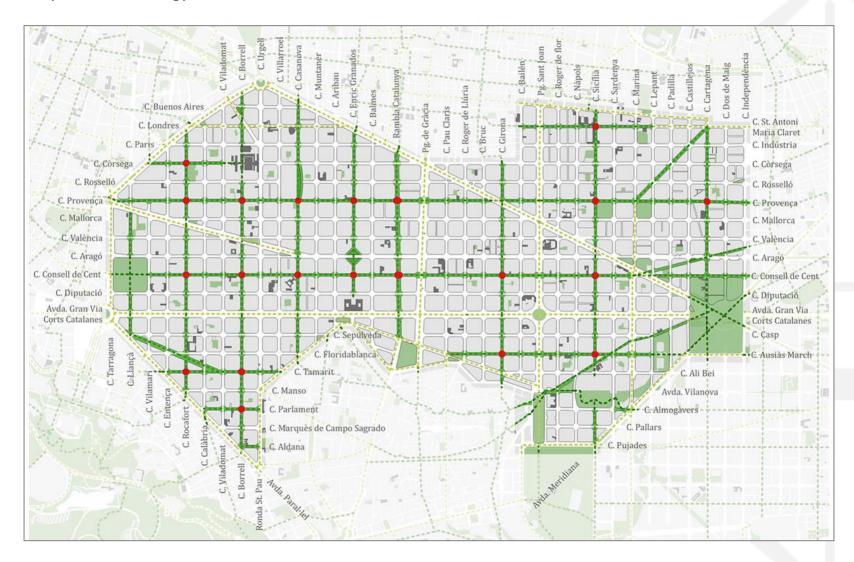
Key factors related to air quality:

- 1) In the Eixample district there are the highest levels of NO₂.
- 2) Exceedances of UE limit values (Directive 2008/50/EC).
- 3) A crowded district, with a lot of traffic and lack of green spaces.

The goal is to create a healthy, greener, fairer and safer public space that promotes social relations and the local economy.

THE SUPERBLOCKS STRATEGY

The Superblocks strategy in the central district of Barcelona:





CHANGES IN URBAN SPACE

On April 25, 2020, the measure for a new sustainable mobility in a new public space was presented.

This government measure presented the actions to be carried out, in the short term, to ensure the safety of mobility for citizens in the phases of progressive easing the COVID-19 lockdown.

At the same time, all these measures are being monitored and studied from the point of view of mobility and air quality, with the intention of becoming structural and helping the much needed reduction of traffic emissions.





Let's protect the schools project



OPPORTUNITIES IN IMPROVING AIR QUALITY

NEW WHO
GUIDELINES

Fine particulate matter

Particulate matter

Diagonal Season

Ozone (in peak season)

Nitrogen dioxide

Nitrogen dioxide

Recommended annually

15 YEARS AGO

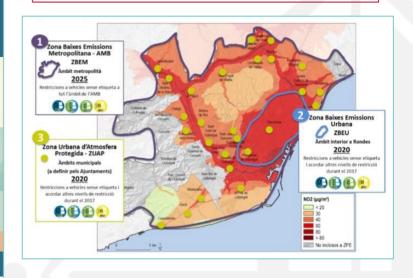
CLEAN AIR FOR HEALTH

WHO AIR QUALITY GUIDELINE LEVELS ARE LOWER THAN

WHO Air Quality Guidelines set goals to protect millions of lives from air pollution.

#AirPollution

MEASURES AT A REGIONAL LEVEL





OTHER CASE STUDIES

World Health Organization



