

Health Aspects and Leisure Activities as a part of Urban Planning and Mobility Strategies – Input from Madrid

Impacts Conference, Paris, June 2023

 MADRID





1) Health Aspects in Urban Planning and Mobility

2) Leisure Activities in Urban Planning and Mobility

ASSUMPTION:
HEALTH ASPECTS
ARE DIRECTLY
RELATED TO AIR
QUALITY AND A
HEALTHY
LIFESTYLE



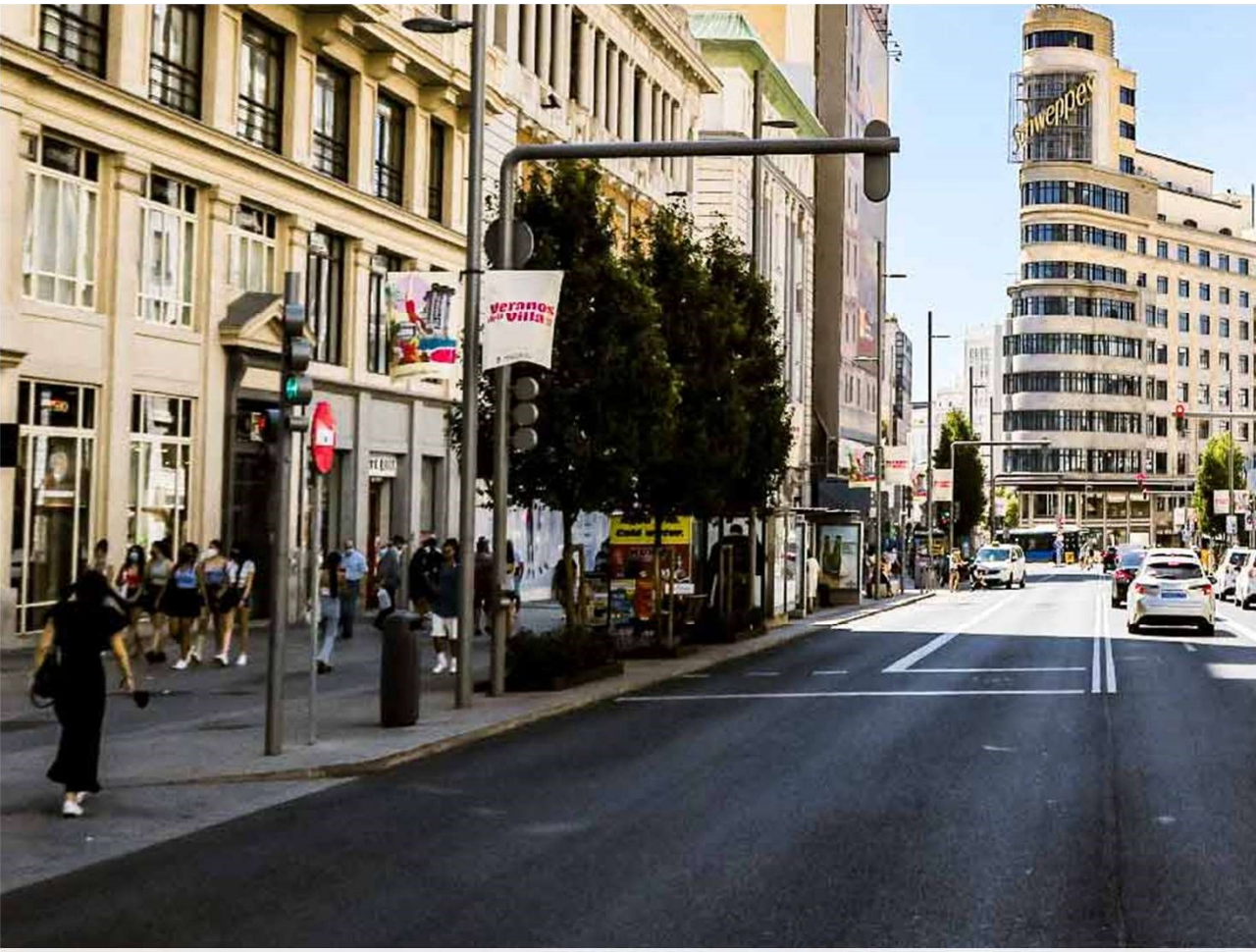
How we integrate **Health Aspects**
in **Mobility Planning** in Madrid?

How we **reduce pollution** in our
city?

- ✓ Low-Emission Zones
- ✓ Electrification of Public Transport (bus fleet)

How we **encourage active mobility** in our city?

- ✓ Extensive public bike service
- ✓ High quality cycling and walking infrastructure



LOW – EMISSION ZONES

LOW-EMISSION ZONES

The Sustainability Municipal Ordinance (09/2023) established the regulatory framework for the whole city to become a **Low Emission Zone (LEZ)**

- ✓ From the **1st of January 2022**: The **“A” vehicles registered outside Madrid** cannot circulate **within the boundaries of the M-30**
- ✓ From the **1st of January 2023**: The **“A” vehicles registered outside Madrid** cannot circulate **on the M-30**
- ✓ From the **1st of January 2024**: The **“A” vehicles registered outside Madrid** cannot circulate **within the city boundaries**.
- ✓ From the **1st of January 2025**: **All “A” vehicles** cannot circulate **within the city boundaries**

“A” vehicles are the most pollutant

petrol vehicles registered before 2000 and diesel vehicles registered before 2006



LÍNEA CERO

CERO EMISIONES

CERO COSTE

001

Atocha Renfe
Moncloa

002

Puerta de Toledo
Argüelles

ELECTRIFICATION OF PUBLIC BUS FLEET

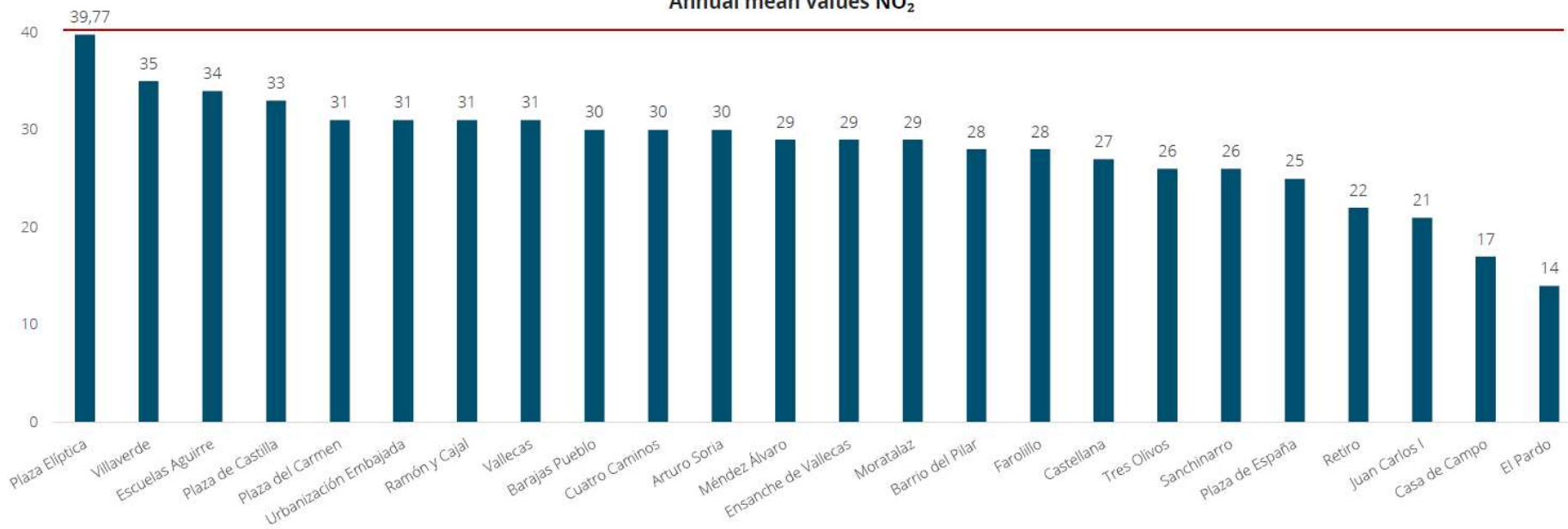


Air quality improvement in the city

General status

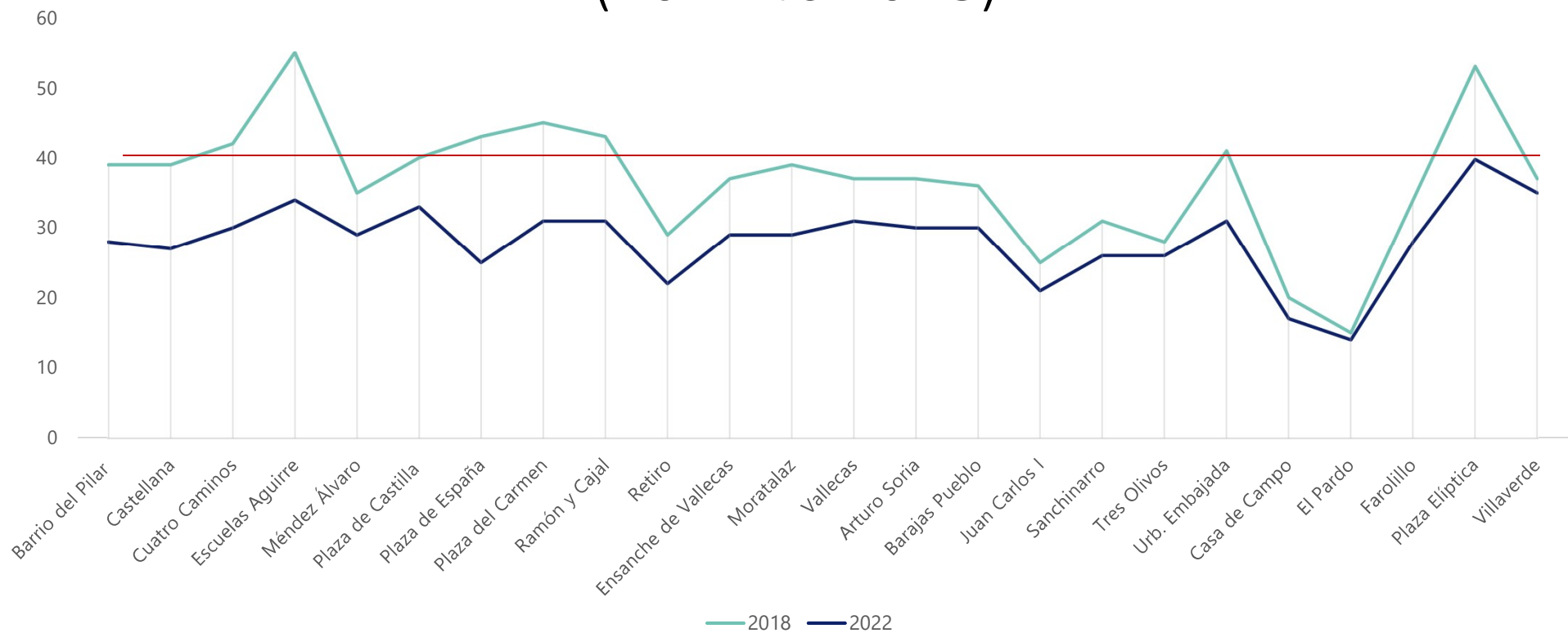
Madrid **complies for the first time** with the **Air Quality European Directive**

Annual mean values NO₂



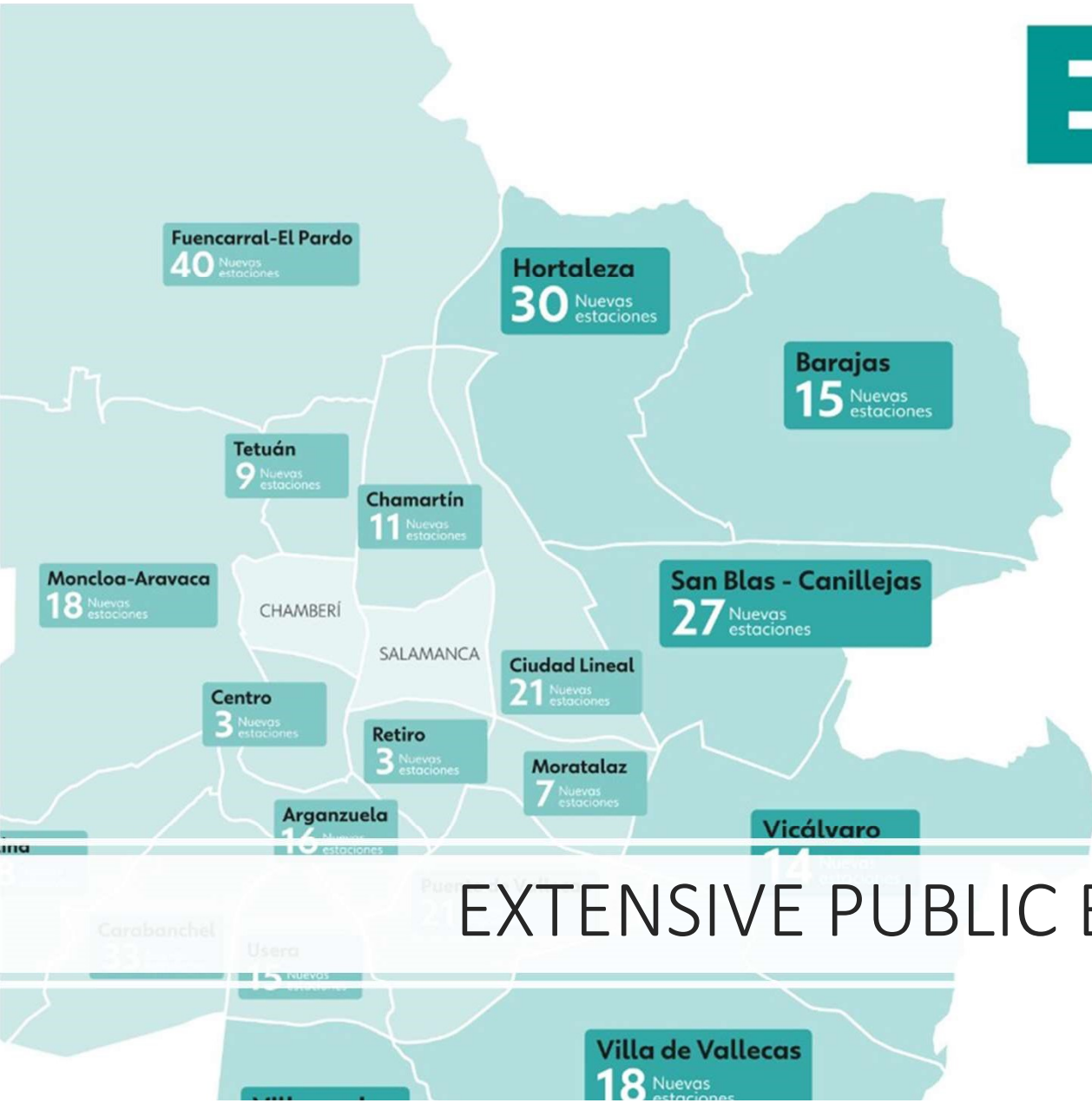
Área de Gobierno de Medio Ambiente y Movilidad

-- clean cities are healthy cities --
Evolution of the NO₂ Annual Mean Values
(2022 vs 2018)



BiciMAD

NUEVO PLAN DE EXPANSIÓN



347 Nuevas estaciones

225 Nuevas estaciones

En distritos con

122 Nuevas estaciones

En nuevos distritos

EXTENSIVE PUBLIC BIKE SERVICE



HIGH QUALITY CYCLING AND WALKING INFRASTRUCTURE

Source: *Diario de Madrid*



Castellana Bike Lane



Joaquin Costa Street

The promotion of the bicycle by the city council is reinforced by the Madrid 360 strategy that aims to implement a total of **71 km of new bike lanes** and **24,342 parking spots** for shared use with PMV and motorcycles.

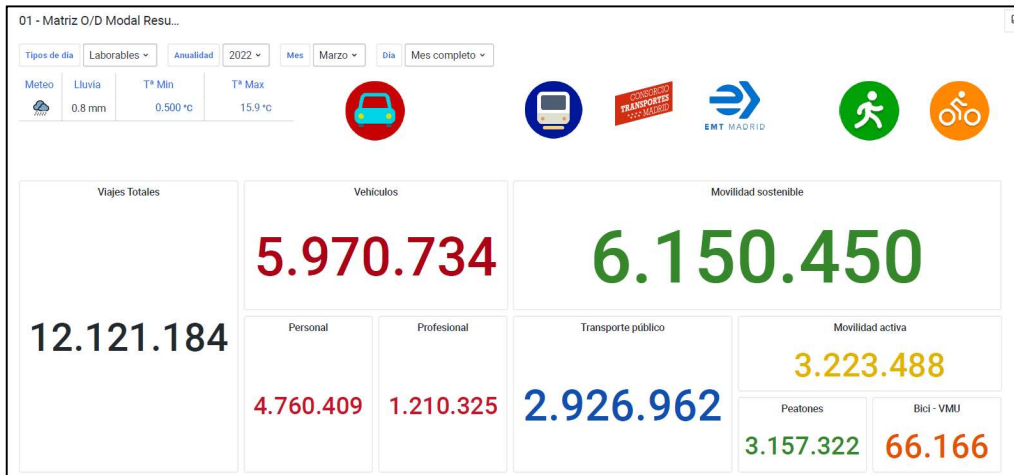
Some of the biggest projects are

- ✓ Construction of Castellana bi-directional bike lane (13 km in total, 4.4 km constructed)
- ✓ Reurbanization of Joaquin Costa Street (due to road safety issues)
- ✓ Construction of a green promenade (*Paseo Verde del Suroeste*) after moving the highway underground

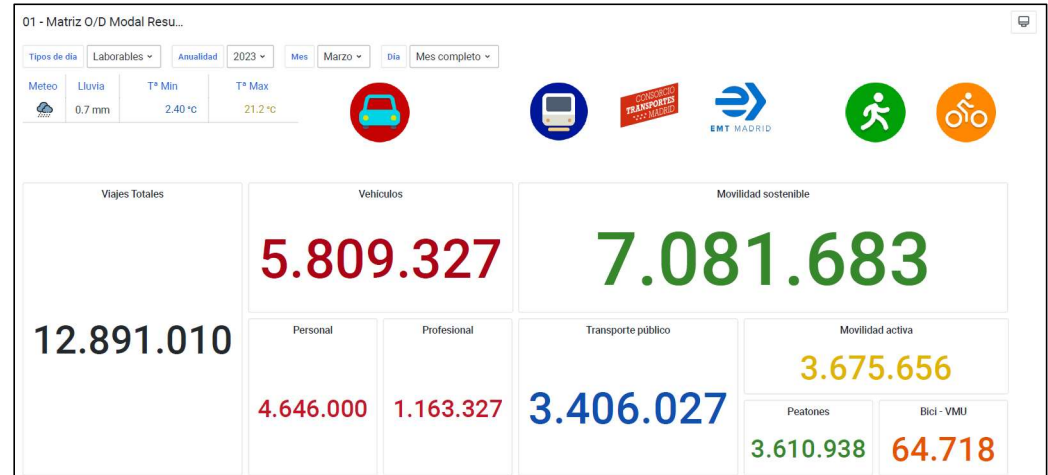
HIGH QUALITY CYCLING AND WALKING INFRASTRUCTURE

MOBILITY COMPARISON – BIG DATA: MARCH 2022 → MARCH 2023

Marzo 2022



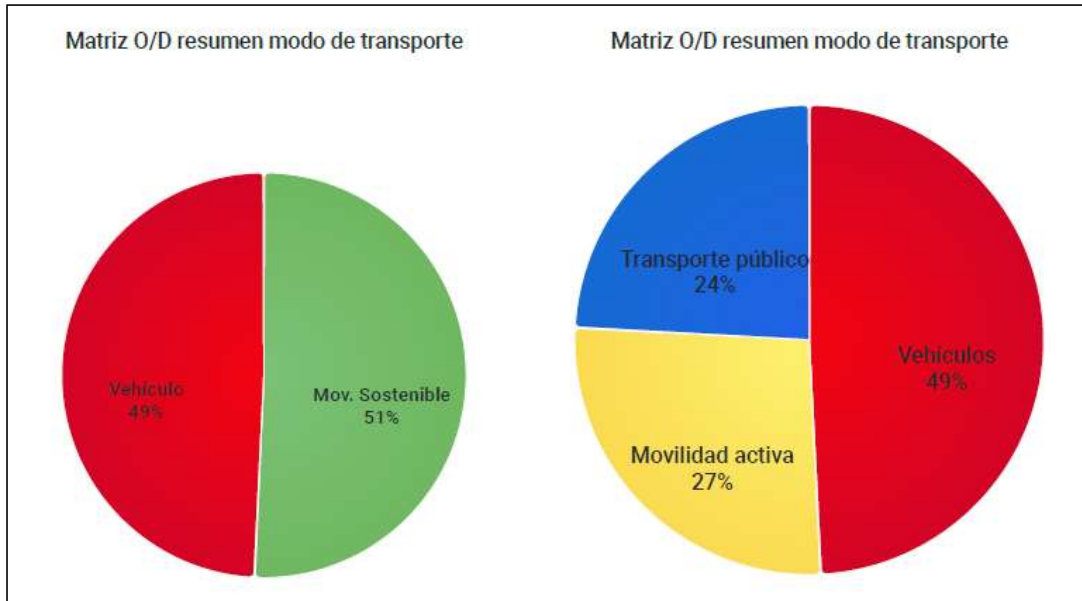
Marzo 2023



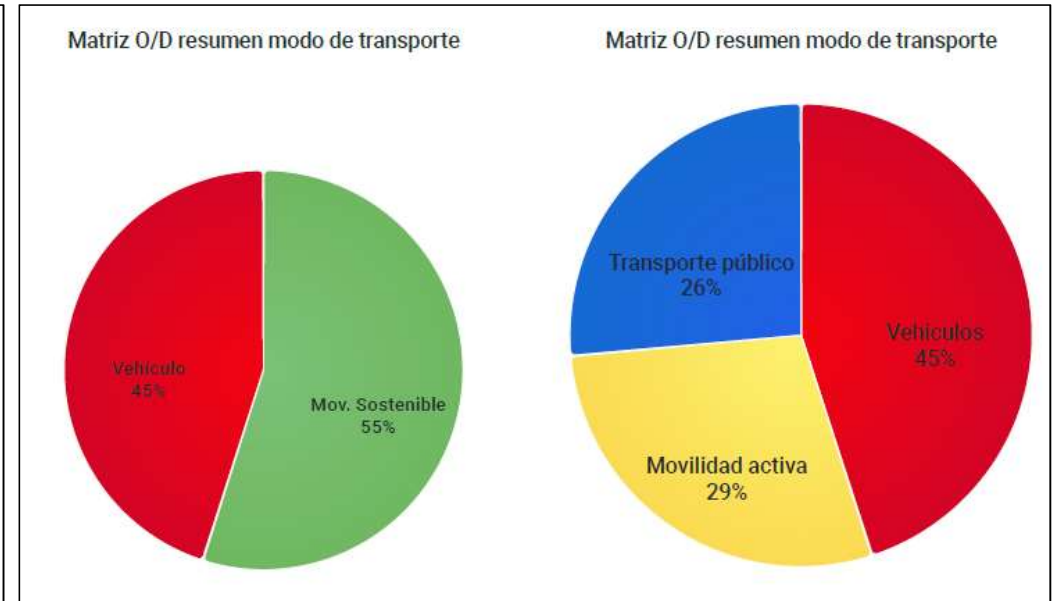
- The total mobility of the city increases by more than 700,000 trips, reaching around 13 million.
- Trips in personal and professional vehicles are reduced by approximately 160,000
- Public transport trips increase by 479,000
- Increases pedestrian mobility in more than 450,000 journeys

MOBILITY COMPARISON – BIG DATA: MARCH 2022 → MARCH 2023

Marzo 2022



Marzo 2023




- Change in mobility habits: trips in sustainable mobility (public transport and active mobility): they turn from 51% to 55%.
- Vehicle trips are reduced from 49% to 45%.

COMPARATIVA MOVILIDAD UTILIZANDO BIG DATA: MARZO 2022 – MARZO 2023

RESUMEN COMPARATIVA

- The general mobility of the city increases, reaching around 13 million trips.
- Trips in private and professional vehicles are reduced.
- The use of public transport increases both in total number and in percentage.
- Movements on foot within the municipality increase in number and percentage.
- The change in habits in the general mobility of the city is confirmed. Displacements in sustainable modes (public transport and active mobility) account for 55% of the total.
- The greatest change in the behavior of mobility habits, changing the use of the vehicle above all public transport, is located in the outer crown of Calle 30 in the city.
- This very significant change in modal transfer in the outer crown of Calle 30 of the city from the vehicle to public transport occurs both in trips within the city (6%) and in trips outside the municipality (5%).



1) Health Aspects in Urban Planning and Mobility

2) Leisure Activities in Urban Planning and Mobility

ASSUMPTION:
LEISURE
ACTIVITIES ARE
DIRECTLY RELATED
TO VIBRANT AND
ACCESSIBLE
PUBLIC SPACES



How we integrate **Leisure Activities**
in **Mobility Planning** in Madrid?

How we **create a vibrant atmosphere**
in our city?

- Integration of Entertainment Hubs
- Pedestrianisation

How we **promote accessibility** in
our city?

- Intermodal micromobility hubs



INTERMODAL MICROMOBILITY HUBS



PEDESTRIANISATION

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One of the most singled out measures included in the Madrid 360 strategy has been the development of **pedestrian only areas** in streets and plazas of **all 21 districts**

- ✓ A total of 170,000 m² of pedestrian areas
- ✓ Pedestrianisation of the city center (*Puerta del Sol*) extending over an area of 16,751 m² where people come together, attracted by shops, restaurants and other entertainment options



PEDESTRIANISATION



INTEGRATION OF ENTERTAINMENT HUBS





INTEGRATION OF ENTERTAINMENT HUBS



THE FUTURE SANTIAGO BERNABEU STADIUM NEIGHBOURHOOD

The Bernabeu Stadium project -new city icon- will improve significantly the **quality of life** of the neighbourhood's residents making it more **accessible, inclusive and livable**.

- ✓ Reduction of noise and light contamination produced by the stadium contaminating the environment
- ✓ Reduction of street lanes and traffic speed to pacify motorized vehicle movement and enhance road safety for pedestrians
- ✓ Creation of accessible, green, vibrant public spaces that inspire the livability of the neighbourhood





In 2019 the Real Madrid Football Club started the renovation of its stadium **Santiago Bernabeu** to convert into a **major event location**. The challenge this project enhances for mobility is the immense **visitor flow in peak periods**.

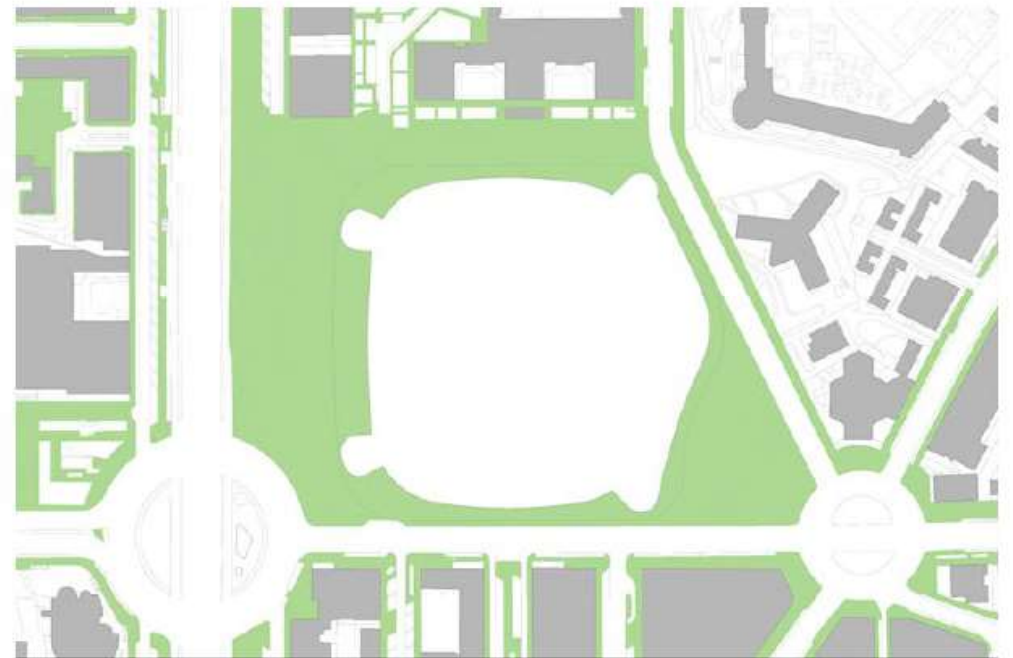
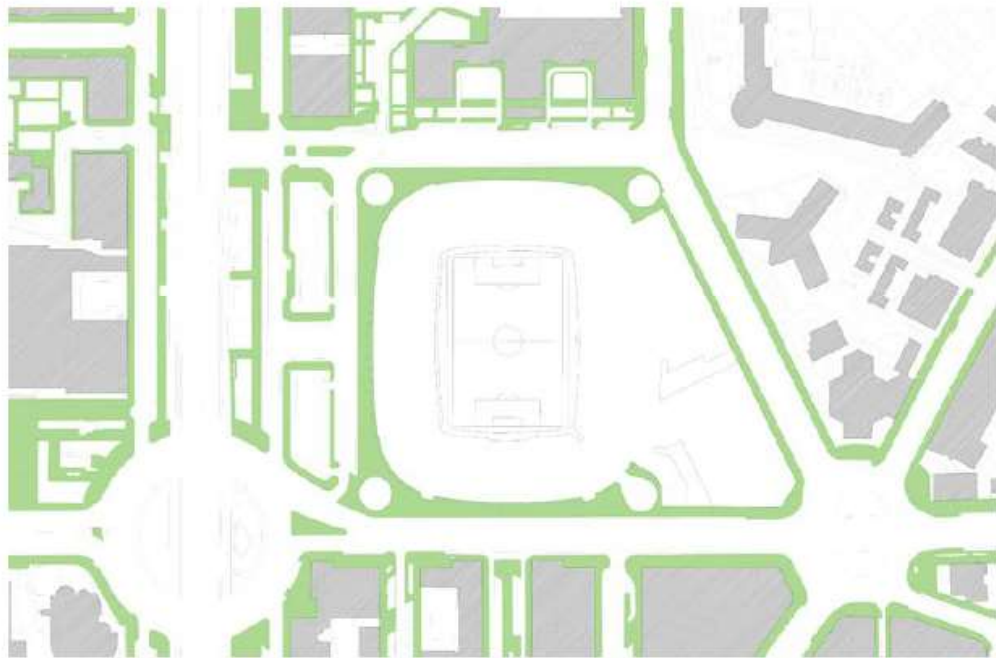
Improve accessibility:

- ✓ by Metro: Metro model 4.0 to accommodate higher capacities of visitor flow and incorporate a new exit leading directly to the entrance of the stadium
- ✓ by bike: Castellana bike lane connecting the stadium to Madrid's train station in the north (1.5 km) and south (5 km) to foster active mobility
- ✓ by foot: 15,000 m² of pedestrian area surrounding the stadium, 6,000 m² of green urban area (*parque Sagrados Corazones*)

INTEGRATION OF ENTERTAINMENT HUBS

+ 25.000 m2 INCREMENTO DE ESPACIOS PÚBLICOS

more than 25,000 square meters of increase in public spaces



■ Estado anterior
14.500 m2 aprox.

■ Remodelación
40.100 m2 aprox.

