

Quelles actions publiques pour baisser les concentrations de polluants dans l'air et respecter les nouvelles réglementations (voire les seuils de l'Organisation Mondiale de la Santé) ?

*Session magistrale*



Generalitat de Catalunya  
**Departament d'Acció Climàtica,  
Alimentació i Agenda Rural**

## **Catalonia's strategy for improving air quality**

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Ministry of Climate Action, Food and Rural Agenda

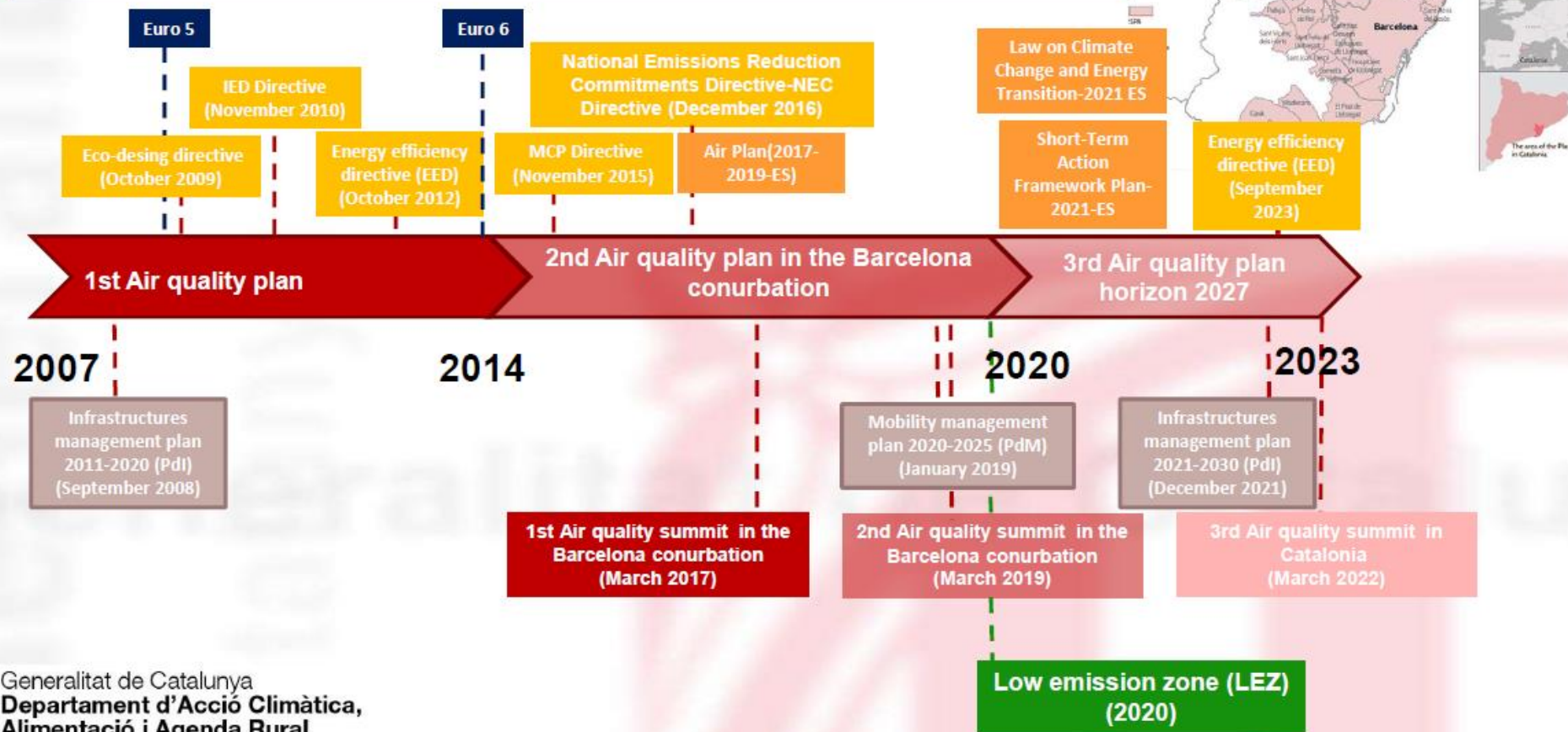
Air and Health International Meeting  
Atmo France, Atmo Occitanie and INERIS

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- **What are the Challenges of the new Directive for Catalonia and its Metropolitan Region Area. Who directives into Perspective**

## What have we done?





## What we have achieved (1/2)

### Nitrogen dioxide air quality levels in ES0901-Barcelona Area



1st Air quality summit in the Barcelona conurbation (March 2017)

2nd Air quality summit in the Barcelona conurbation (March 2019)

3rd Air quality summit in Catalonia (March 2022)

## What we have achieved (2/2)

### Nitrogen dioxide air quality levels in ES0902-Vallès-Baix Llobregat



1st Air quality summit in the Barcelona conurbation (March 2017)

2nd Air quality summit in the Barcelona conurbation (March 2019)

3rd Air quality summit in Catalonia (March 2022)



## What are the actions we are taking to improve Air Quality in Catalonia? (1/5)

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### Clean Air Policies Catalonia-Barcelona

- Air Quality Improvement Plan, Horizon 2027. It will be approved by government decree. Currently, it is in the process of approval through the government decree (We are evaluating the comments submitted during the public information process).
- Air Quality Short Term Action Plan. It will be approved by government decree. Currently, it is currently in the process of approval (We are evaluating the comments submitted during the public information process.)
- Atmospheric Quality Law. It is in an advanced stage of text development to begin working with the corresponding documents.

## What are the actions we are taking to improve Air Quality in Catalonia? Air Quality Plan Horizon 2027 (2/5)

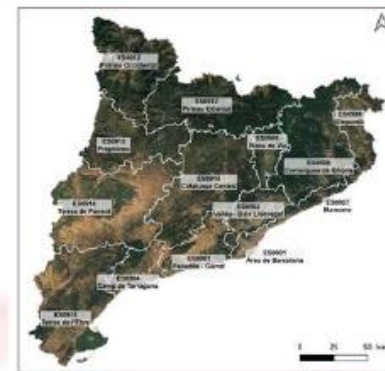
**Territorial Scope:** Catalonia

**Regulated Pollutants:** NO<sub>2</sub>, NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, BaP, and O<sub>3</sub>

**Application Period:** 2023-2027

**Sectors that are addressed:** Land transport and mobility; industrial and energy; domestic, institutional, and commercial; livestock and agriculture; actions for prevention in territorial and urban planning; maritime transport; air transport; communication, research, and investigation.

**Measures:** 84 containing 374 actions.





# What are the actions we are taking to improve Air Quality in Catalonia? - Air Quality Plan Horizon 2027 (3/5)

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## Key emissions reduction measures

### Mobility Sector

- **Implementation of LEZs** for municipalities with more than **50,000 inhabitants** and for municipalities with more than **20,000 inhabitants**. **72% of the population** of Catalonia will be living in municipalities with LEZs.
- **Barcelona LEZs RingRoads**. In 2021 the implementation of the LEZs reduced NO2 levels by 11%. For 2024, a 25% reduction is expected.
- **Mobility Plans for Companies**.



## What are the actions we are taking to improve Air Quality in Catalonia? - Air Quality Plan Horizon 2027 (4/5)

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### Key emissions reduction measures

#### Industrial sector, energy and potentially polluting activities

- Reduction of VOCs, PM and NOx emission limits in the industrial sector.

#### Domestic, institutional and commercial sector

- Measures to reduce emissions from biomass combustion sources.

#### Environmental taxation, subsidies and economic incentives

- A proposal for a law on the large ship emissions tax is in the process of approval by the Catalan Parliament, aiming to encourage the electrification of ships.

## What are the actions we are taking to improve Air Quality in Catalonia? - Air Quality Plan Horizon 2027 (5/5)

Air Quality Plan Horizon 2027 - Air Quality Objectives												
Pollutant	NO <sub>2</sub> (µg/m <sup>3</sup> )			PM10 (µg/m <sup>3</sup> )		PM2.5 (µg/m <sup>3</sup> )		BaP (ng/m <sup>3</sup> )	O <sub>3</sub> (µg/m <sup>3</sup> )			
Year	1 hour	1 day	Annual	1 day	Calendar year	1 day	Annual	Calendar year	Maximum daily 8-hour mean (1)	May to July (calculate from 1-hour values)	1-hour	hourly (3 consecutive hours)
2025	200 not to be exceeded more than 12 times per calendar year	50 not to be exceeded more than 30 times per calendar year	30	45 not to be exceeded more than 30 times per calendar year	30	25 not to be exceeded more than 30 times per calendar year	15	1	120 not to be exceeded on more than 22 days per calendar year, averaged over 3 years	AOT40 18.000 µg/m <sup>3</sup> × h over 5 years	180	240
2027	200 not to be exceeded more than 6 times per calendar year	50 not to be exceeded more than 24 times per calendar year	25	45 not to be exceeded more than 24 times per calendar year	25	25 not to be exceeded more than 24 times per calendar year	12.5	1	120 not to be exceeded on more than 20 days per calendar year, averaged over 3 years	AOT40 18.000 µg/m <sup>3</sup> × h over 5 years	180	240



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## Challenges of the new Directive for Catalonia and its Metropolitan Region Area. Who directives into Perspective (1/6)

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1. It will be challenging for us to meet the new air quality standards defined in the proposal for a directive at all the sampling points for NO<sub>2</sub>, PM<sub>10</sub>, O<sub>3</sub> and PM<sub>2.5</sub>. Therefore, the Air Quality Plan Horizon 2027 includes a review in 2027, and if necessary, new measures will be defined to achieve the new standards. It will be necessary to approach the solution taking into account the different relations with those pollutants, involving various territorial units and different sectors responsible for the emissions.
2. For the other pollutants, the limit values established in the proposal for a directive are met.
3. The Air Quality Plan Horizon 2027 aims to comply with the standards and align with WHO directives.



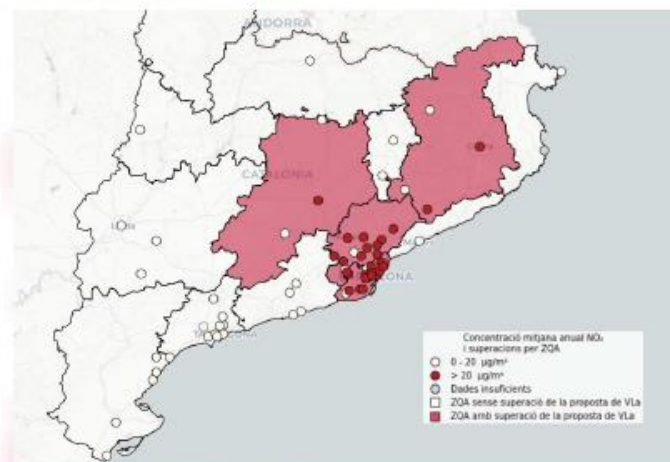


## Challenges of the new Directive for Catalonia and its Metropolitan Region Area. Who directives into Perspective (2/6)

### NO2 Assessment Current Directive-2022



### NO2 Assessment Proposal for a Directive-2022

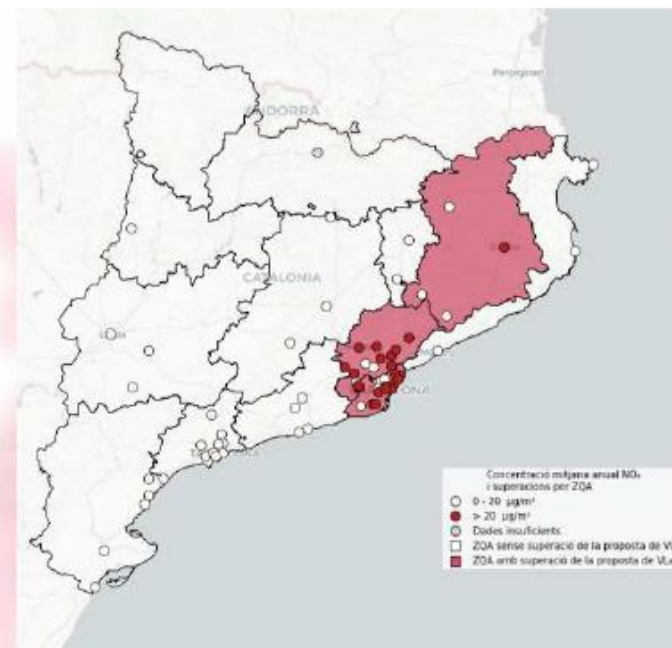


## Challenges of the new Directive for Catalonia and its Metropolitan Region Area. Who directives into Perspective (3/6)

### NO<sub>2</sub> Assessment Current Directive-2023

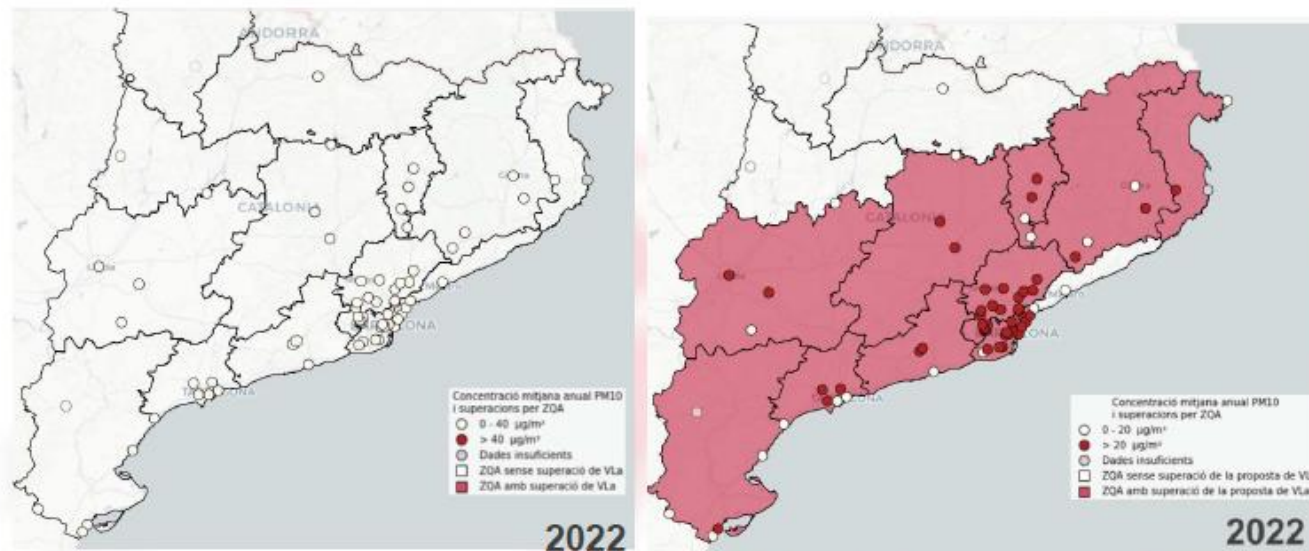


### NO<sub>2</sub> Assessment Proposal for a Directive-2023



## Challenges of the new Directive for Catalonia and its Metropolitan Region Area. Who directives into Perspective (4/6)

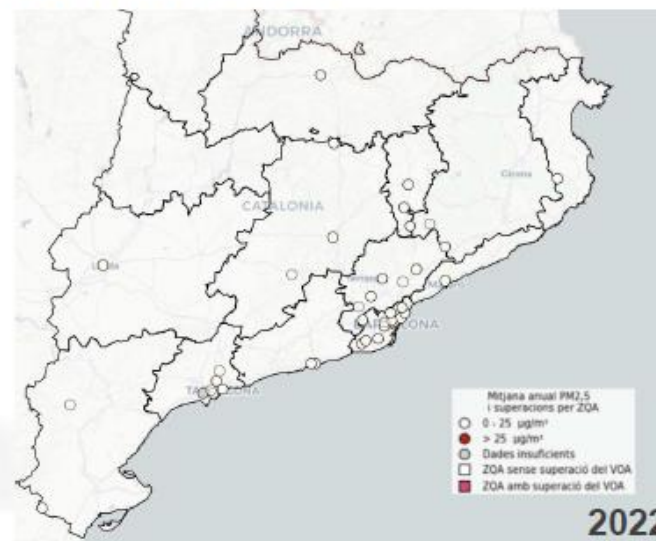
### PM10 Assessment Current Directive-2022 PM10 Assessment Proposal for a Directive-2022



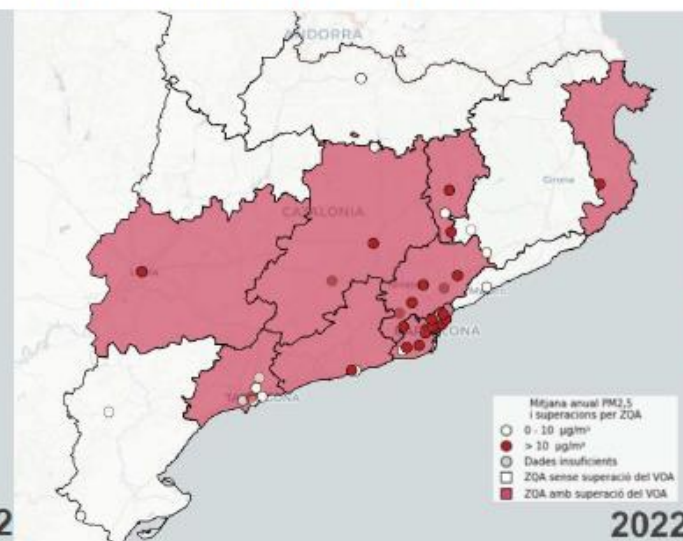


## Challenges of the new Directive for Catalonia and its Metropolitan Region Area. Who directives into Perspective (5/6)

PM2,5 Assessment Current  
Directive-2022

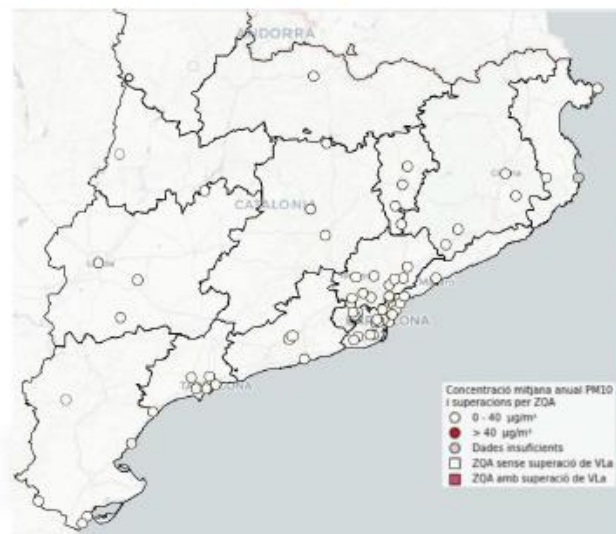


PM2,5 Assessment Proposal  
for a Directive-2022



## Challenges of the new Directive for Catalonia and its Metropolitan Region Area. Who directives into Perspective (6/6)

### O3 Assessment Current Directive-2022



### O3 Assessment Proposal for a Directive-2022

