

# ACUSTI CAT

V Congrés  
d'Acústica de  
Catalunya

**Manresa**

**24 i 25 | ABRIL | 2024**

**Soroll i contaminació de l'aire**

*Recerca de sinergies de control i solucions de la  
contaminació acústica i contaminació atmosfèrica*

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## Taula rodona: Soroll i contaminació de l'aire

- Isabel Hernández, DQCCQA-DACC
- Josep Escarrà, Ajuntament de Sant Boi de Llobregat
- Jaume Targa, 4Sfera
- Carolyn Daher, ISGlobal
- Modera: Eduard Puig, DQCCQA-DACC

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Població 83.690 (2019)

Superfície de 21,94 Km2

20% Forestal  
40% Agrícola  
40% Urbà

PRINCIPALS SECTORS ECONÒMICS



SALUT



AUTOMOCIÓ



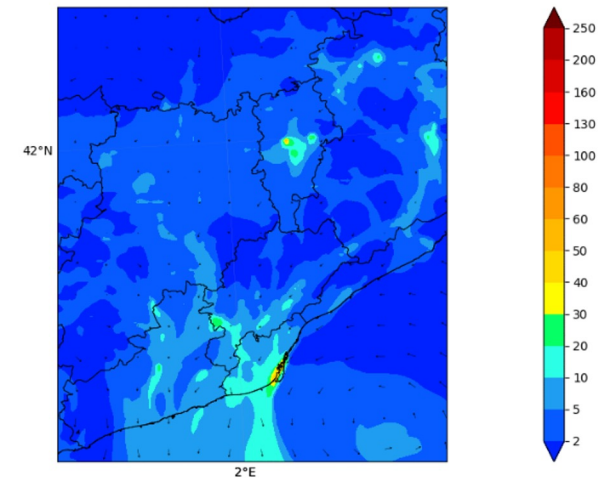
LOGÍSTICA



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Nitrogen Dioxide ( $\mu\text{g m}^{-3}$ ) for 23UTC 24 Apr 2024

BSC-ES/FORECAST CALIOPE - Resolution: 1x1



BSC Barcelona Supercomputing Center Centre Nacional de Supercomputació

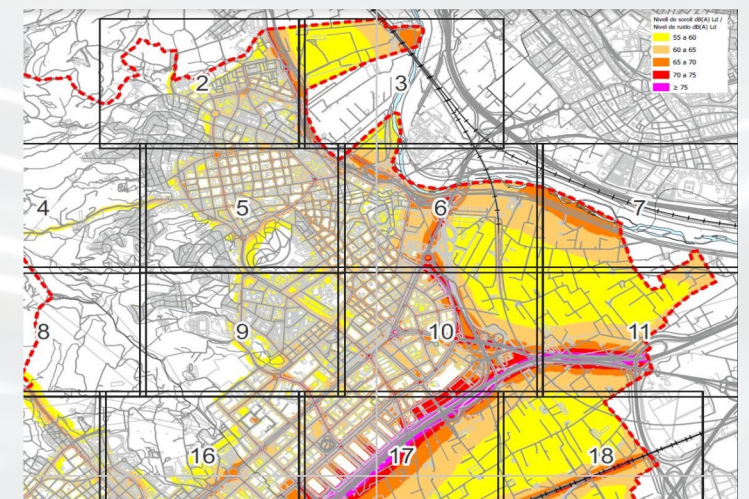
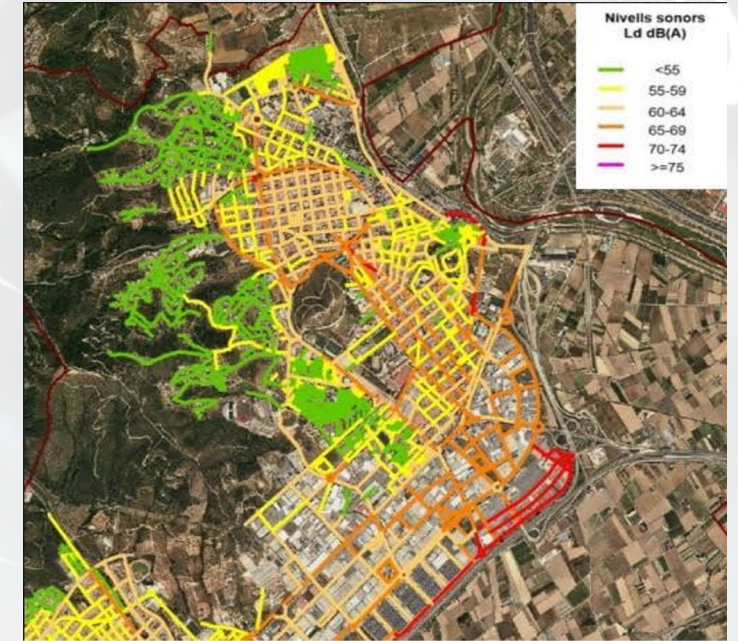
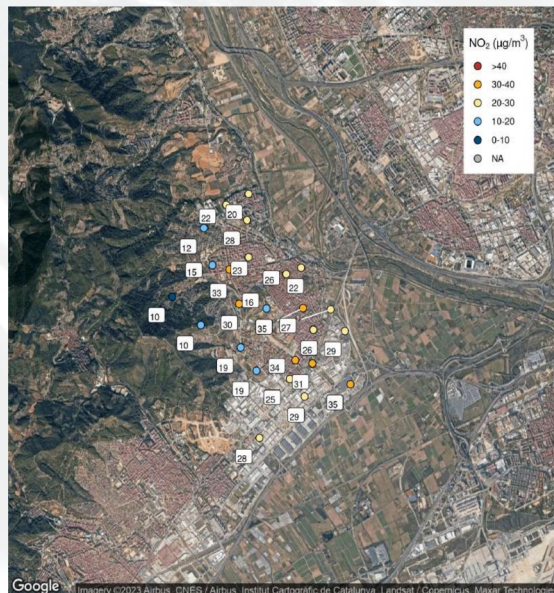
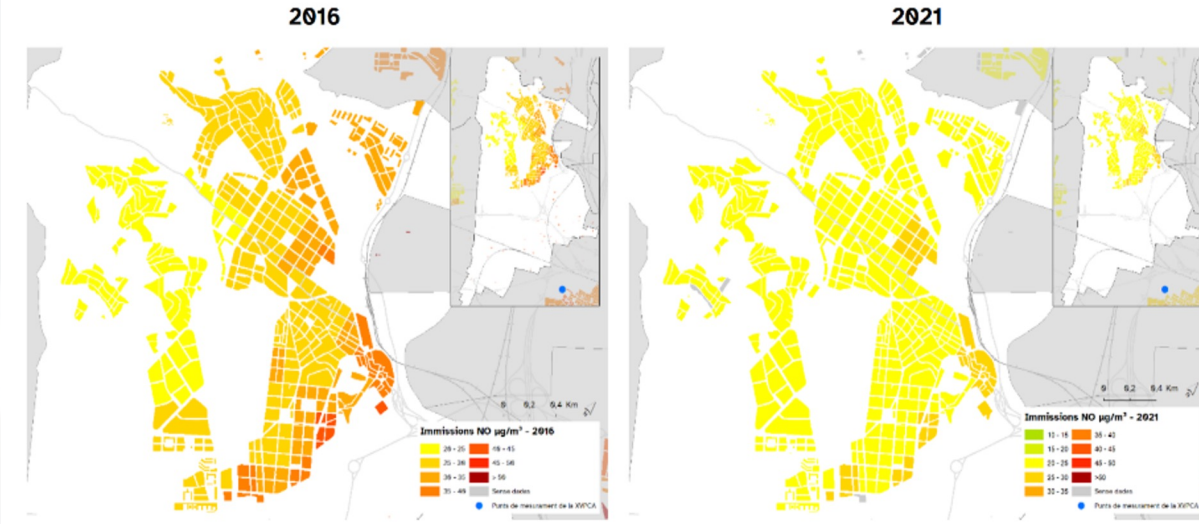
20  $\text{ms}^{-1}$

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Level of NO<sub>2</sub> pollution at Sant Boi de Llobregat.



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Acoustic, pollution at Sant Boi de Llobregat

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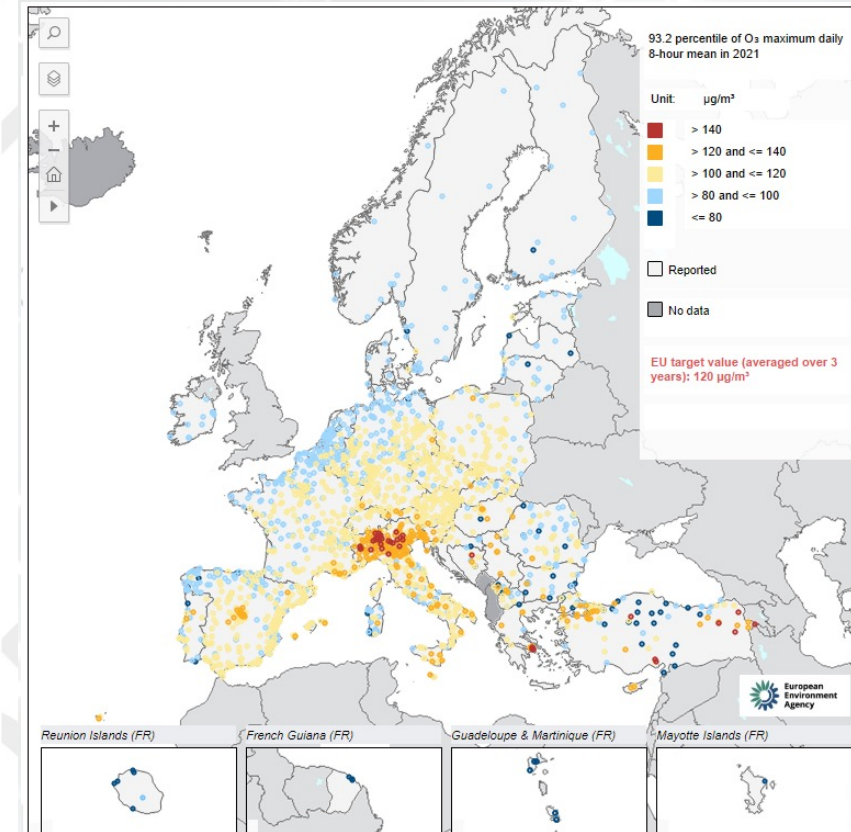
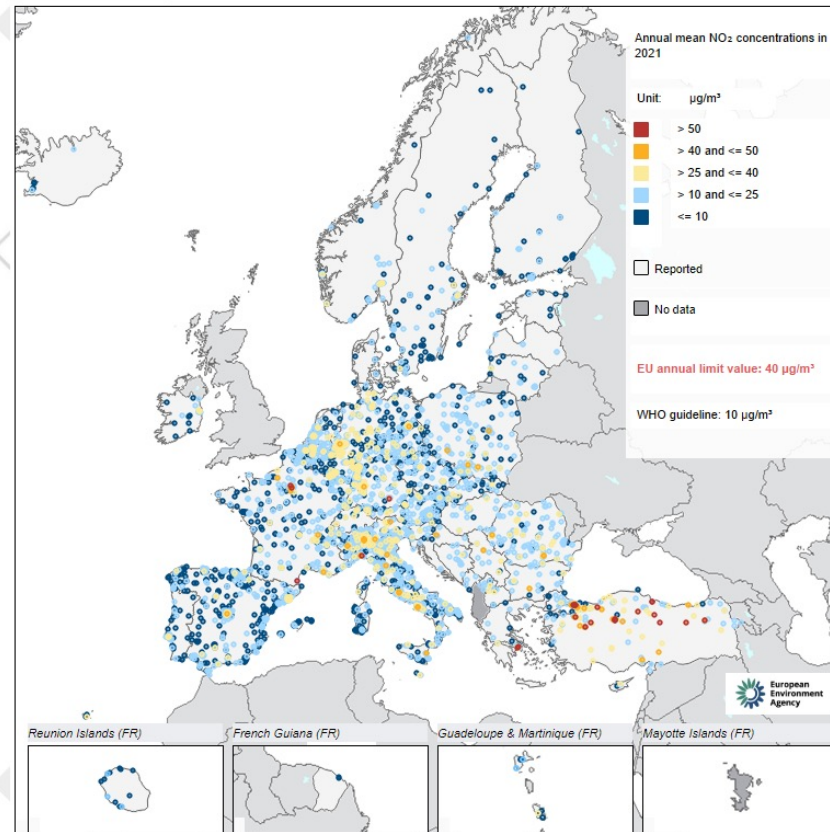
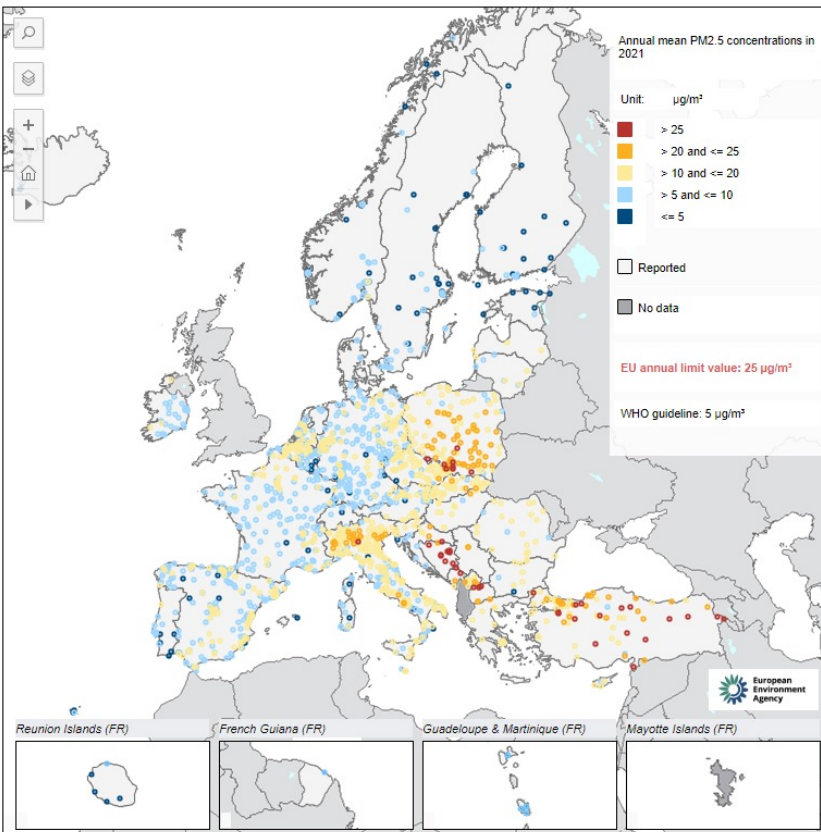


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## Particulate matter

## Nitrogen Dioxide

## Ozone in 2021

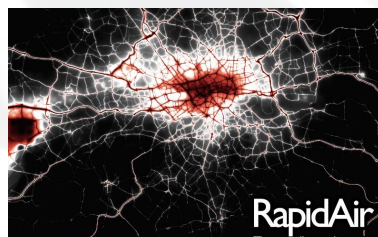




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Method	Advantages	Disadvantages	Cost estimation
Passive samplers	Very cheap & simple Useful for screening & baseline studies Spatial resolution Personal exposure	Limited pollutants Only provide monthly/weekly averages Indicative equipment	From 15€ to 50€ per sampler (dependent on pollutant)
Electronic sensors ("Low"/medium-cost)	Useful for screening & baseline "Spatial" resolution Multi-pollutants	Still complex May be unreliable Not for personal exposure Complexity on data	100 to 500€ on very basis units  Minimum 4,000€ per unit for multi-pollutants
Automatic analysers	Proven High performance Hourly data Reference equipment	Complex Expensive High skill requirement Can be unreliable (if not maintained) High recurrent costs	Circa 10,000€ per analyser + infrastructure
Modeling	Proven High performance Hourly to yearly analysis Run scenarios High resolution Forecasting	Complex Expensive High skill requirement High recurrent costs Dependent on other data sources	Small local 10-15k € to +50k € for complex scenarios



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