

[Inicio](#) > Nature Geoscience highlights CALIOPE's ability to "provide decision makers with the information they need to take preventive action" on air quality

---

## [Nature Geoscience highlights CALIOPE's ability to "provide decision makers with the information they need to take preventive action" on air quality](#)

CALIOPE "goes further" than most pollution warning systems, the journal says in its February editorial.



The [editorial](#) of this month's [Nature Geoscience](#) journal highlights the capabilities of the Barcelona Supercomputing Center's air quality forecasting system. The publication, which dedicates its editorial to the problem of urban air pollution, stresses the ability of the [CALIOPE](#) system to "provide decision-makers with the information they need take preventive action" on air quality.

"Near-term forecasts have long been used to alert citizens about poor air quality, and forecasts are becoming more reliable in the 24–48 hour range. Some systems go further: in Barcelona, the CALIOPE system provides forecasts that incorporate different emission reduction scenarios such as vehicle bans. As such, CALIOPE and systems like it have the necessary functionality to provide decision makers with the information they need take preventive action," the editorial says.

## **CALIOPE**

CALIOPE offers 48 hour air quality forecasts for Spain and Europe, thanks to the combined use of different simulation models executed on the MareNostrum supercomputer. With CALIOPE, the user can see the air quality and the concentrations of the main pollutants - ozone, nitrogen dioxide, sulfur dioxide and particulates - at a specific given location. Air quality forecasts are key to our ability to manage measures against pollution and its effects on citizens and the environment.

[CALIOPE website](#) [Nature Geoscience Editorial](#)

[Nota de premsa en castellano \(pdf\)](#) [Nota de premsa català \(pdf\)](#)

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

---

**Source URL (retrieved on 18 Mar 2025 - 13:51):** <https://www.bsc.es/es/news/bsc-news/nature-geoscience-highlights-caliopes-ability-provide-decision-makers-the-information-they-need-take>