EUSPA European Union Agency for the Space Programme

#EUSpace

EU SPACE FOR SMART CITIES · PROOF OF CONCEPT

EnvAir360: street-level air quality forecasts

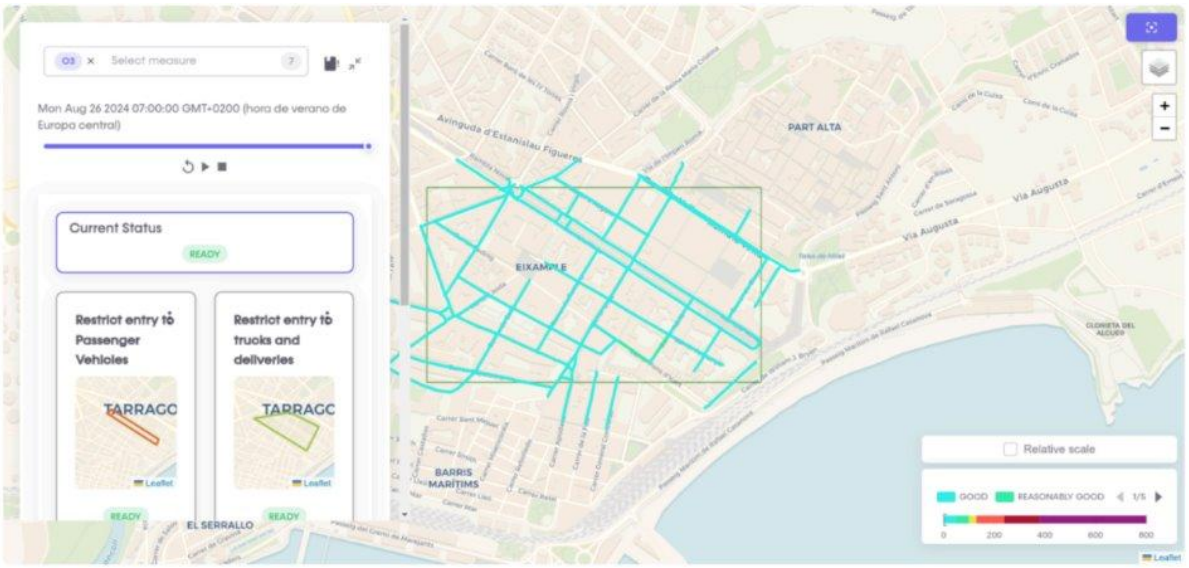
Know tomorrow's pollution street by street, and act before limits are exceeded.

The challenge

Air pollution above WHO levels caused an estimated **34,000 NO_2-related deaths in the EU in 2023** (EEA, 2025), largely from traffic. Pollution **varies street by street**, but monitoring stations are few and forecasts, where available, are too coarse to pinpoint problem streets. **Stricter EU limits from 2030** raise the pressure to act early.

The solution

EnvAir360 **forecasts tomorrow's air pollution hour by hour, down to 20–50 m**. City teams get forecast maps for 7 pollutants, **scenario simulations** (e.g. restricting cars in an area), dashboards and **alarms that email staff or trigger city systems via API.**



EU Space inside

Copernicus

CAMS air quality data, with Sentinel-5P observations assimilated, driving every city forecast

Galileo / EGNOS

Not used in this PoC: traffic inputs come from city data

Other data

City air quality sensors, traffic counts and traffic simulation to correct and sharpen forecasts

How it works

Space data
CAMS, weather, sensors and traffic data

Processing
Air models, AI correction, traffic simulation

Outputs
Hourly street maps, scenarios and alarms

City action
Restrict traffic, boost transit, alert citizens

Results at a glance

12
Cities and companies interested in using EnvAir360

4 of 5
Testing cities rated the custom alarms 4–5 out of 5

20–50 m
Street-level forecasts, down from 10 km in the source data

Who benefits

- City **environment and mobility departments**
- **Transport planners** and low-emission zone managers
- **Mobility and routing app** providers

Pilot at a glance

Location	Valencia · Athens · Piraeus · Naples · Almada · Rzeszów · Miskolc
Period	12/2024 – 07/2025
Partners	EY · Libelium · Factual
Users	Municipal teams in 5 cities

Lessons learned and future avenues

- Works best **alongside city sensors**; a first step for cities without them
- **API links alerts to city systems**, so it scales to new cities
- **Next**: open-access version on the EUSPA website

Meet us at the EUSPA booth

Smart City Expo World Congress · Barcelona, 3–5 November 2026

Scan to download the PoC presentation, factsheets and the brochure ‘EU Space for smart cities’. Want it in your city? Talk to us.

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