

EU SPACE FOR SMART CITIES • PROOF OF CONCEPT

Urban park irrigation monitoring

Spot stressed parks early, prioritise irrigation and keep urban trees healthy through heat and drought.



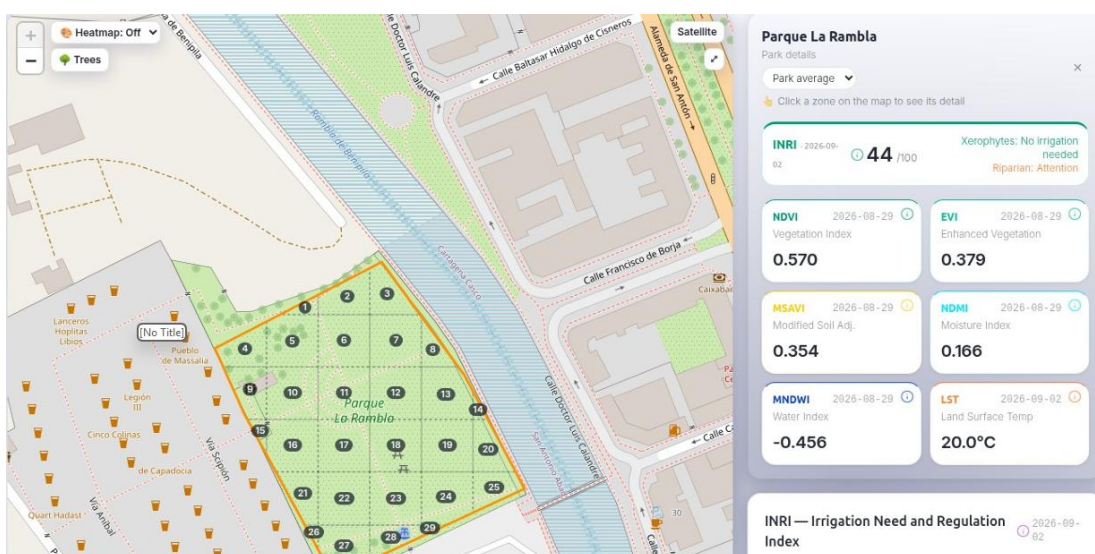
The challenge

Up to **70% of people in southern Europe** live with seasonal summer water stress (EEA, 2025). Yet park health is still mostly **checked by eye, park by park**, and watering often follows fixed schedules: **some parks get too much, others are left stressed**. Drought-stressed trees also lose their cooling effect when cities need it most.



The solution

A web platform that uses **Copernicus satellites and weather data** to track the health and water stress of every park with a **0–100 irrigation score**. Parks teams get maps down to 10 m, email alerts, a seasonal outlook and, where a tree census exists, watering estimates per tree. This helps them **focus field visits and irrigation where the satellite view shows stress**.



EU Space inside



Copernicus

Sentinel-2 vegetation vigour and moisture at 10 m; **Sentinel-3** daily surface temperature; AgERA5 weather



Galileo / EGNOS

Not used in this PoC: parks and trees come from municipal maps and censuses



Other data

Municipal tree censuses, where available, to estimate watering volumes



How it works



Results at a glance

6 cities

From Cartagena to Essen, with 4 to 6 monitored parks each

Daily

Irrigation score and alerts refreshed every day for every park

120 days

Seasonal outlook built on three years of satellite history



Who benefits

- Municipal **parks and green-space departments**
- **Water utilities** and irrigation managers
- Urban planners and **climate-adaptation teams**



Pilot at a glance

Location	Cartagena · Essen · Almada · Oporto · Milan · Lyon
Period	02/2026 – 09/2026
Partners	EY · Libelium · Factual
Users	Parks teams and municipal managers



Lessons learned and future avenues

- **Best used in the growing season**; trees show drought stress with a delay
- **Masking buildings and paved areas** inside parks gives cleaner scores
- **Next**: add soil-moisture sensors and connect to city GIS



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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