EUSPA European Union Agency for the Space Programme

#EUSpace

EU SPACE FOR SMART CITIES · PROOF OF CONCEPT

EcoRoute: healthier walking and cycling routes

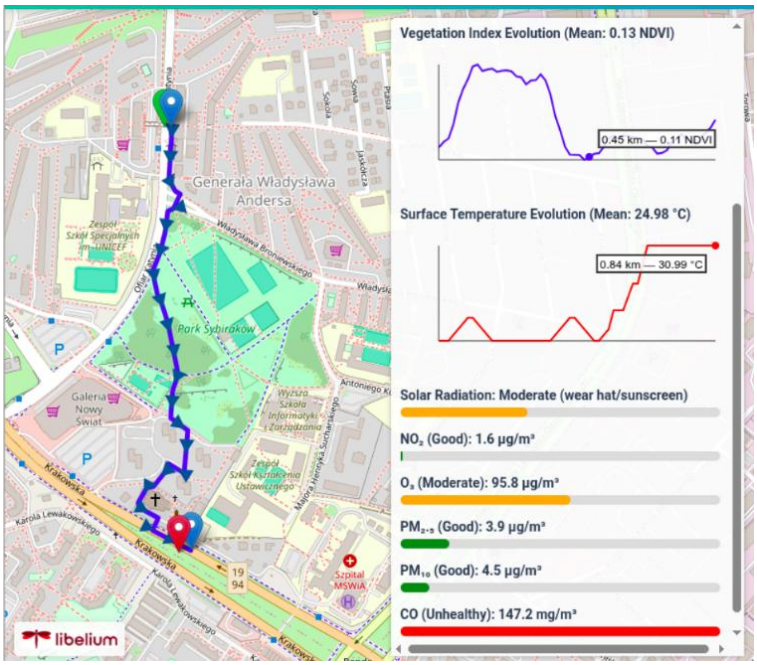
Guide citizens through cooler, greener and cleaner streets, and make active mobility a healthier choice.

The challenge

Heat and air pollution make walking and cycling less healthy: **95% of EU city dwellers breathe air above WHO guideline levels** (EEA, 2025). Yet standard route planners **optimise only for time and distance.** Cities promoting active mobility have **no simple way to steer people towards cooler, greener and cleaner streets**.

The solution

A web route planner that **scores every street for heat, greenery, air pollution, UV and slope**. Citizens get up to three eco-routes with a clear environmental profile; cities can **embed it in their own apps** and use it to promote green corridors.



EU Space inside

Copernicus

Sentinel-3 surface temperature; **Sentinel-2** + **Urban Atlas** greenery; **CAMS** air quality and UV

Galileo / EGNOS

Not used for route optimisation; the route can start from the user's location

Open data

OpenStreetMap street network and 30 m elevation data for the slope of each street

How it works

Space data
Copernicus heat, greenery, air and UV

Processing
Every street segment scored for health

Outputs
Eco-routes with an environmental profile

City action
Promote green corridors and active mobility

Results at a glance

12
Cities and companies interested in using EcoRoute

5 of 6
Testing cities support adding Copernicus layers to apps like Google Maps

4 of 6
Testing cities found the environmental data useful for routing

Who benefits

- **Citizens** walking or cycling in hot or polluted cities
- **Municipalities** embedding green routing in their apps
- **Commercial route planners** adding environmental layers

Pilot at a glance

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

Lessons learned and future avenues

- Satellite layers **need local data** for street-level detail
- Routing must add **local rules**, such as no-cycling zones and stairs
- **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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