#EUSpace

Linking space to user needs

EcoRoute: healthier walking and cycling

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

EUSPA
European Union Agency for the Space Programme

The urban challenge

What problem does the city face?

- Walkers and cyclists in Athens, Milan, Berlin and other cities **face heat and pollution**
- **Urban heat islands, UV and steep slopes** make active trips less comfortable
- Standard route planners **optimise for time, not for health** or comfort
- Cities want **greener, cooler corridors** to support active mobility

95%

City dwellers in the EU breathing air above WHO guideline levels

62,775

Heat-related deaths in Europe in summer 2024

The solution at a glance

What it does

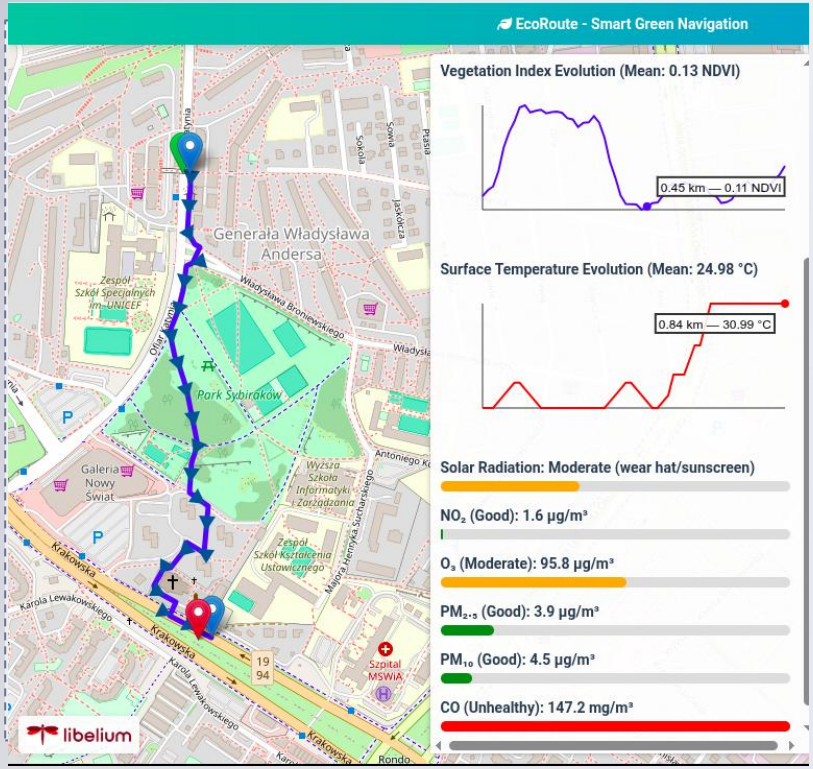
Suggests walking and cycling routes with **less heat, pollution and UV.**

Who it is for

Citizens, city mobility teams and route-planner providers

What users get

Up to three eco-routes with an environmental profile and map layers



EU Space inside

Copernicus

Data / services used

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

Added value

Free, Europe-wide data on the stressors that matter for walking and cycling.

Galileo / EGNOS

Data / services used

Not used in this PoC

Added value

Next step: Galileo positioning for live, on-the-go route guidance.

Open data

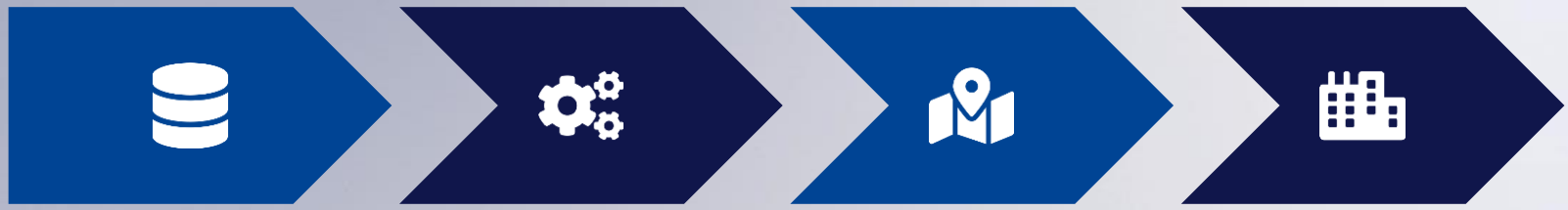
Data / services used

OpenStreetMap street network; OpenTopography elevation (30 m)

Added value

Provides the streets to route on and the slope of each segment.

How it works



1. Space data

Copernicus heat, greenery, air quality and UV, plus street and elevation data

2. Processing

Scores each street segment and finds the healthiest route

3. Outputs

Eco-routes with distance, time and an environmental profile

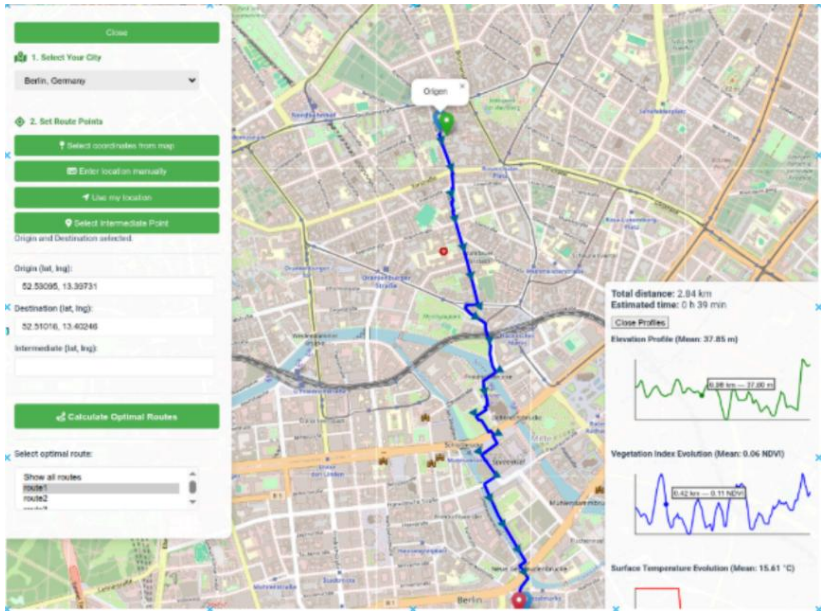
4. City action

Promote green corridors and inform heat and mobility planning

Find the healthiest way across town, planned from space. Watch the demo: here

The pilot in practice

Stakeholders involved	Municipalities of; Athens · Milan · Berlin · Almada · Rzeszów · Naples
Period	December 2024 – July 2025
Partners	EY · Libelium · Factual
End users involved	Municipal teams in Milan, Berlin, Almada, Rzeszów and Naples
Framework	EUSPA-OP-21-21 Lot 5 – SC7



Results and benefits

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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

Copernicus data can make everyday route planners healthier, guiding people through cooler, greener and cleaner streets.

Who can benefit and what's next

Who can use it

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

Lessons learned & next steps

- Satellite data is too coarse for street-level detail; **local data is needed**
- Routing must add **local rules** such as no-cycling zones and stairs
- **Next**: open-access version on the EUSPA website

Interested in testing it in your city? Talk to us at the EUSPA booth.

Find out more

Download all PoC material

Presentations, factsheets and the brochure ‘EU Space for smart cities’ are available via the QR code.

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