

EU Policies for Walkable, Climate-Resilient Cities: Reducing Heat and Noise at Street Level

How microclimate and sound shape walking – and what EU and cities can do next

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Key messages (read in 30 seconds)

- Walking is a cornerstone of the EU's climate, health and social inclusion goals, but everyday walking decisions are strongly driven by sensory conditions: heat, shade, wind, and noise.
- Evidence from recent research on pedestrian perception links microclimate stress and soundscape quality to comfort, route choice and willingness to walk.
- Cities need actionable indicators (not only emissions targets) to design streets that feel cool, calm and safe – especially in climate-vulnerable neighbourhoods.
- Living labs can accelerate implementation: test low-cost pilots (shade, greening, traffic calming, quiet zones) and measure perceived comfort before scaling.
- EU policy can help by mainstreaming 'walking comfort' into climate adaptation and urban innovation funding, and by supporting common methods for measuring it.

Why this matters for Europe now?

Europe's climate transition will be won or lost in neighborhoods: where people decide every day whether to walk, take public transport, or drive (European Commission, 2021; IPCC, 2022). Heat waves, thermal discomfort, and noisy streets already undermine active mobility, particularly for older adults, children and people with health vulnerabilities (WHO Regional Office for Europe, 2021; EEA, 2024; EEA, 2025; WHO Regional Office for Europe, 2019). If the EU wants cities that are both low-carbon and socially inclusive, walking must be treated as an adaptation and public health priority – with an explicit focus on how streets feel (European Commission, 2021; Bull et al., 2020; IPCC, 2022).

What the evidence says?

Two key findings emerge from recent peer-reviewed research: microclimate stress (notably heat exposure and lack of shade) and soundscape quality (notably dominant traffic noise) are consistently associated with pedestrians' comfort and perception of walkability (Mansouri et al., 2025a; Mansouri et al., 2025b). In practical terms, small street-level interventions that reduce perceived heat and noise can deliver disproportionately large gains in walking comfort and everyday well-being (Mansouri et al., 2025a; Mansouri et al., 2025b). This brief translates these insights into a short set of policy levers for EU programmes, city strategies and living labs, building on research-to-policy experience and walking-based methods (Mansouri, 2025; Mansouri & Stefàno, 2024).

Policy recommendations:

- 1. Make “walking comfort” a standard objective in climate adaptation planning.** Encourage cities to report not only on infrastructure (km of sidewalks) but also on lived comfort indicators (shade availability, perceived heat, perceived noise, resting opportunities).
- 2. Use EU funding to scale neighbourhood pilots that improve sensory comfort.** Prioritise quick-to-test measures: tree canopy and shade structures, cool materials, water points, benches, and targeted traffic management for quieter streets.
- 3. Create a common measurement kit for living labs and municipalities.** Support lightweight protocols combining microclimate readings with short user surveys (before/after pilots) so results are comparable across cities and EU neighbourhoods.
- 4. Embed equity: target heat- and noise-exposed areas first.** Direct innovation and cohesion funds toward districts where climate stress and environmental burdens are highest, ensuring benefits reach vulnerable groups.
- 5. Connect the EU ‘neighbourhood’ perspective to urban resilience.** Promote exchange between EU cities and neighbouring regions on climate-ready public space, especially around heat adaptation and active mobility in Mediterranean contexts.

How to implement through a living lab (90-day starter plan):

Phase	What to do
Week 1-2: Define the ‘comfort problem’ with users.	Walk-alongs with residents and frontline staff; identify 3-5 stress points (heat, noise, crossings, lack of rest).
Week 3-6: Pilot two low-cost interventions.	Example: temporary shade + benches, or a ‘quiet street’ trial with speed reduction and traffic filtering.
Week 7-10: Measure and iterate.	Combine short surveys (comfort, safety, willingness to walk) with simple microclimate and noise observations; refine the design.
Week 11-13: Decide what to scale.	Document impact, costs and maintenance; prepare the case for permanent investment and replication.

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