

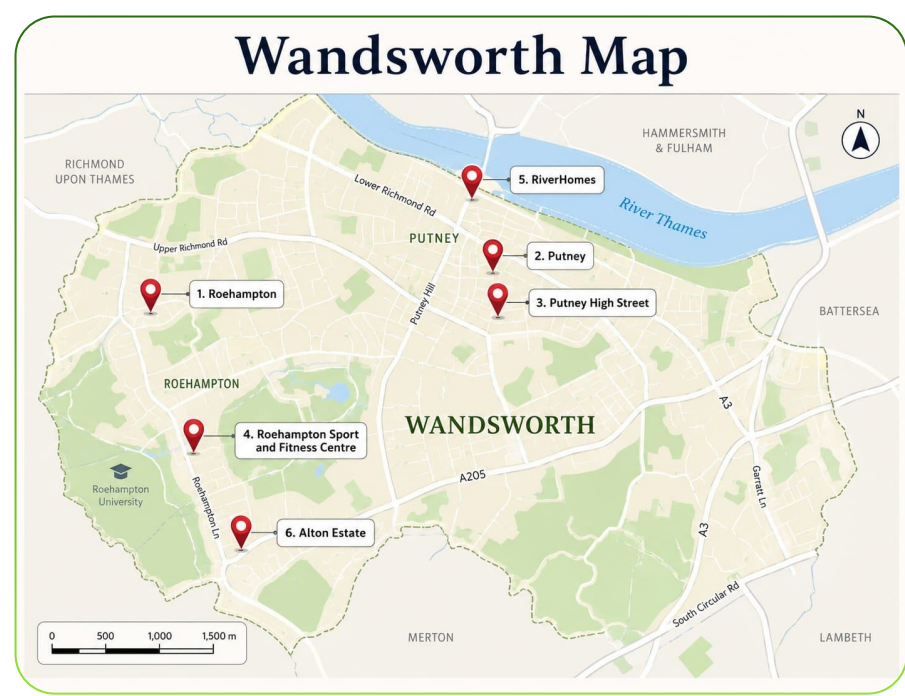
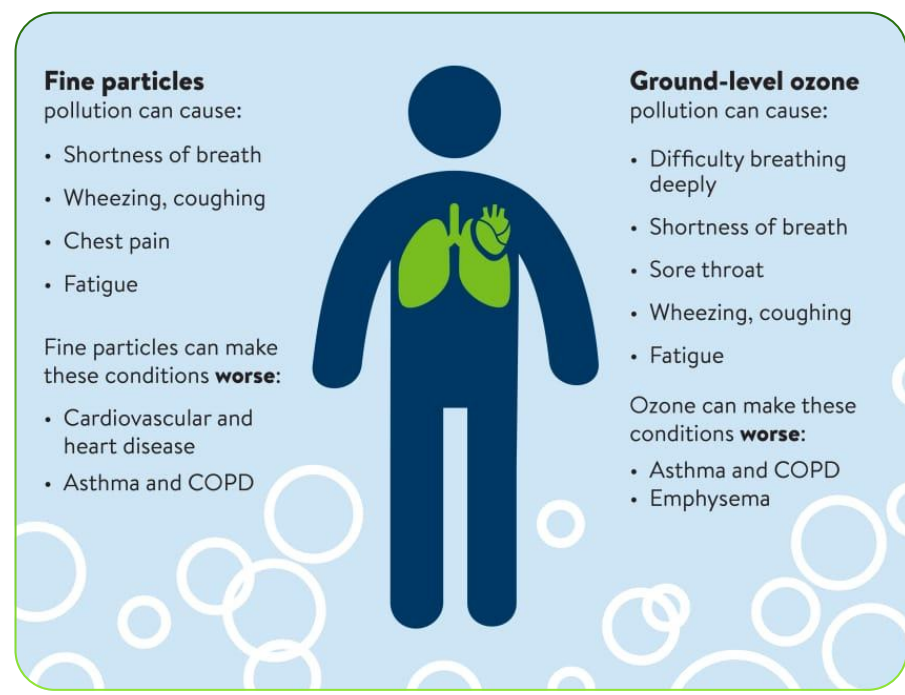
Air & Living Infrastructure Initiative. Indoor & Outdoor Air Quality Monitoring in Wandsworth

Evidence-led monitoring. Practical actions. Cleaner air for communities



Problem + Why It Matters

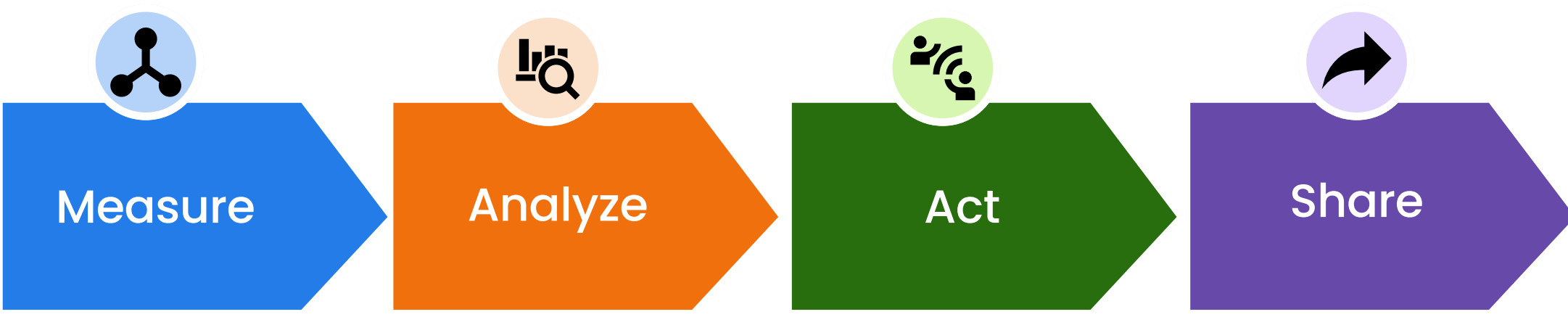
Air pollution affects health, learning, and productivity, and many exposures happen where people spend the most time: indoors. Without local measurements, communities cannot target solutions effectively. This project monitors indoor and outdoor air quality across Roehampton, Putney, and Wandsworth to identify hotspots, peaks, and practical actions that improve wellbeing.



Aims and Objectives

Aim: Generate clear, evidence-led insight on indoor and outdoor air quality across Roehampton, Putney, and wider Wandsworth to guide healthier spaces and community action.

Objectives: Measure key pollutants and comfort indicators, identify peak exposure periods, compare indoor vs outdoor conditions, translate findings into practical recommendations, and build a scalable monitoring model for A Greener London's social impact work.



Study Locations & Coverage

Coverage: Roehampton campus locations and Wandsworth Community Locations

- Sites:** Roehampton campus locations + Putney/Wandsworth community locations:
1. Westfield Shopping Center, Ariel Way.
 2. Putney High Street, Putney.
 3. Roehampton Sports and Fitness Center, Roehampton.
 4. River Homes Ltd., Lower Richmond.
 5. University of Roehampton REEF Building, Library Complex, and Hostel.

Design: Indoor vs outdoor comparisons, 2-weeks cycles, repeat where feasible.



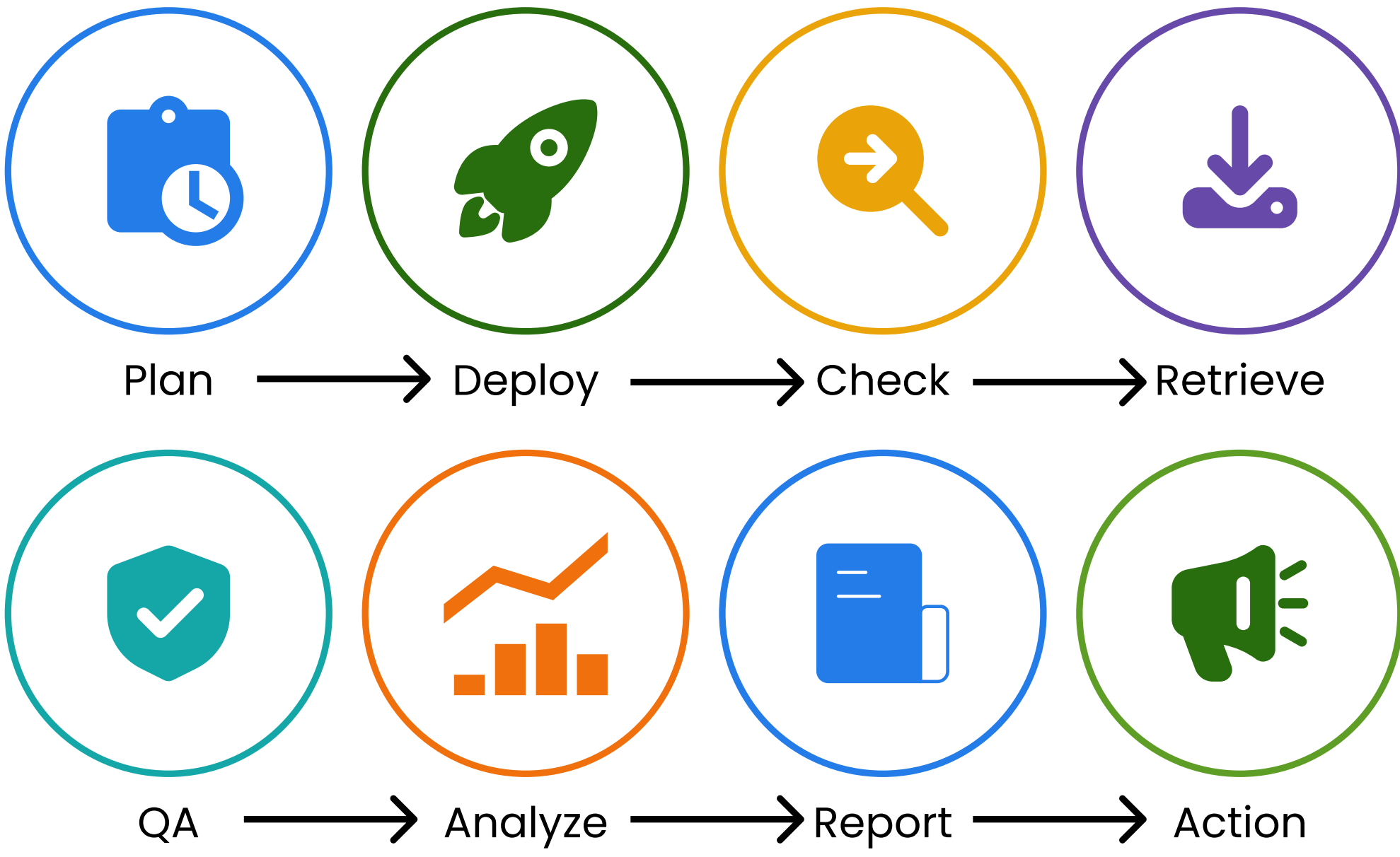
Monitoring Devices & What They Measure

Indoor: Airthings Space suite (CO₂, PM, VOC, temperature, humidity, plus context metrics).

Outdoor: EarthSense Zephyr (gases + particles, solar-ready).



Workflow



Social Impact & Community Value

What changes because of this work

- ✓ Makes invisible exposure visible through clear, local indoor and outdoor air quality evidence across Roehampton, Putney, and Wandsworth.
- ✓ Supports healthier learning and working spaces by guiding ventilation, occupancy, and building-use decisions.
- ✓ Helps communities and partners prioritize where green and living infrastructure can deliver the greatest benefit.
- ✓ Builds a scalable monitoring model A Greener London can extend across South London for measurable, community-led impact.



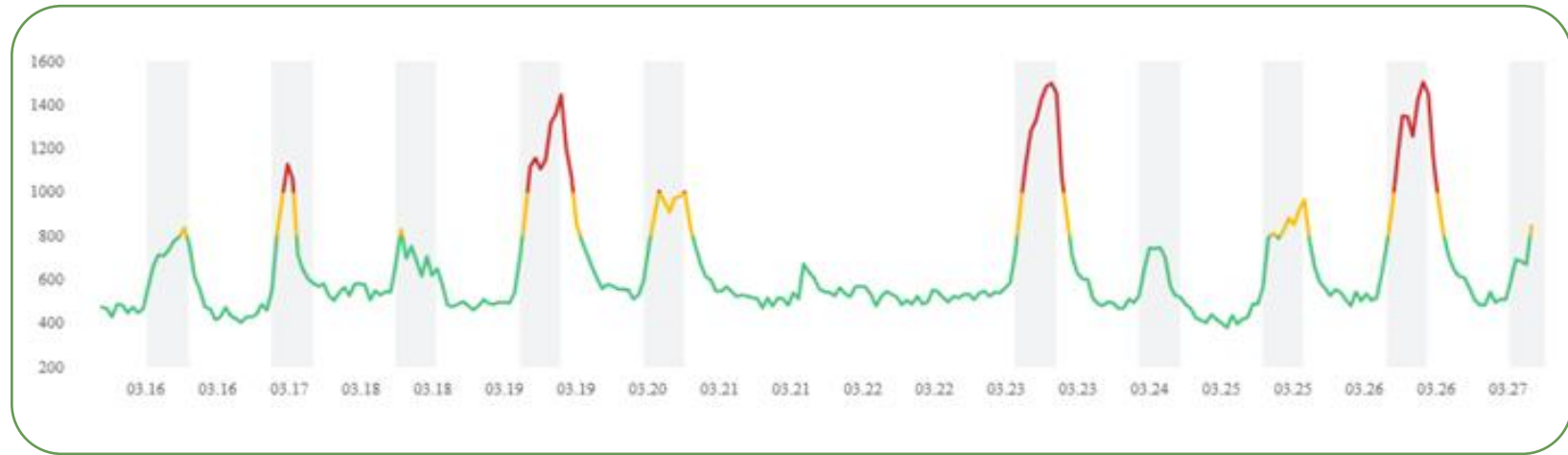
Results at a Glance

Good Fair Poor

River Homes



These values represent average air quality levels recorded during the building's opening hours.

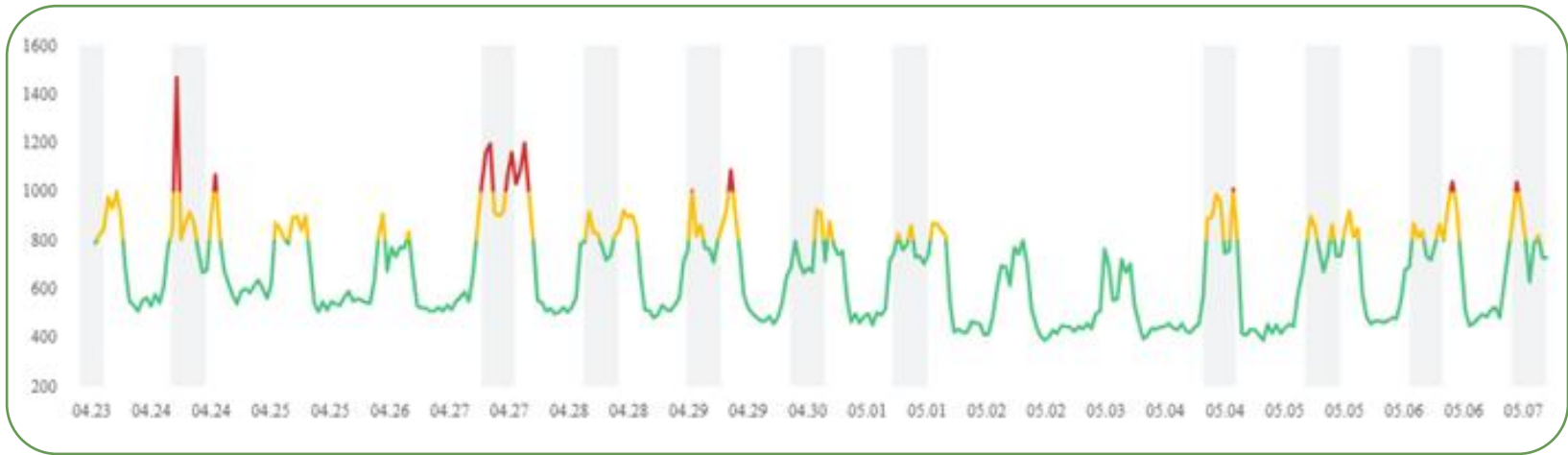


Graph shows aggregated hourly averages of all spaces in the building. Gray field marks opening hours

Roehampton Sport Center



These values represent average air quality levels recorded during the building's opening hours.



Graph shows aggregated hourly averages of all spaces in the building. Gray field marks opening hours

Current Findings

- ✓ Indoor air quality profiles established for initial locations.
- ✓ Key drivers identified: ventilation and occupancy patterns affecting CO₂ peaks.
- ✓ PM and VOC events detected and linked to activity periods.
- ✓ Outdoor monitoring setup validated for continued collection.



Implications and Conclusion

- ✓ Evidence supports practical actions to improve comfort and reduce peak exposures.
- ✓ Monitoring approach is working and scalable across more Wandsworth locations.
- ✓ Next phase will strengthen comparisons, expand coverage, and refine recommendations.
- ✓ Findings will support sustainability decision-making and community benefit.