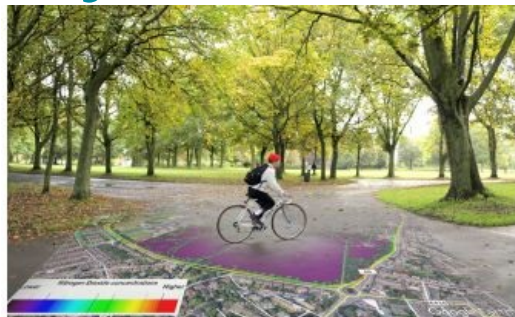


# Ordnance Survey and EarthSense Map Clean Air Cycle Routes



A project combining Ordnance Survey (OS) geospatial data with real-time air quality data from EarthSense Systems is set to highlight clean cycle routes in Britain's cities.

Using a network of fixed and static air pollution sensors, EarthSense is producing city-wide visualisations of air quality. Combined with OS's open dataset of greenspaces, the EarthSense air quality models highlight areas of higher air pollution, often along busy roads, and allow users to identify cleaner air routes, such as through parks or along canal paths.

"By making it easy for cyclists to see pollution levels before they make their journey, we can help them make better decisions about their route," commented Professor Roland

Leigh, Technical Director of EarthSense. "This maximises the gain they are getting from the exercise whilst minimising their exposure to harmful pollution."

Using data from a city wide network of sensors, satellite observations, weather conditions and traffic emission data in, EarthSense can deliver data for forecasting, master planning and identifying cleaner cycle routes. The data is available hourly, with a forecast up to three days, and historically, with resolutions ranging from 1m for detailed study areas to 10m for full city maps, and 100m for the national picture.

The OS Open Greenspace product, used to communicate the EarthSense modelled air quality levels, includes data on parks, play spaces, golf courses, allotments and more. In addition, the greenspace information can be viewed through the popular OS Maps app to help people to discover greenspaces in their local area.

Phillip Wyndham, Strategic Development Manager at the OS, added "The EarthSense data provides clear information to the public, allowing them to make decisions on the best, and cleanest, walking and cycling routes to take. At OS, we are actively encouraging everyone to get outside, and this is another great tool to enable people to discover the greenspaces in our towns and cities. The insights gained from such modelling can also be used by policy makers and city planners to make practical interventions around mitigating hot spots. Data visualisation with a geospatial backdrop is a powerful way to analyse and display data from other third-party sources, and this is exactly the type of innovation which OS OpenData is designed to support."

Air pollution in the UK has been described as a 'public health emergency' and levels of nitrogen dioxide (NO<sub>2</sub>), emitted mostly by diesel vehicles, have been above legal limits in almost 90% of urban areas since 2010. A recent survey has shown that, in the last few years, the number of people who cycle at least once a week has increased by more than 100,000.