

PRESS RELEASE



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Ricardo to use transport location data to improve air quality in global cities

Ricardo expertise in predicting and monitoring air quality and vehicle fleet performance will enable transport authorities to evaluate the impacts of mobility services and implement effective clean air zones in towns and cities

As part of its mission to support the decarbonisation of transport, Ricardo, a world-class environmental, engineering and strategic consulting company, has announced that it has won a national competition to demonstrate the benefits that transport location data can have on urban air quality. The project addresses both the existing vehicle fleet and also extends to long-term improvements in air quality.

Ricardo has partnered with UK-based technology company Brightec to develop a smartphone app which will enable hybrid vehicles to sense that they have entered a clean air zone and encourage a switch to electric mode. Ricardo is recruiting taxi drivers in Brighton to trial the app and will use its connected fleet management system – a digital tool which monitors the performance of a fleet of vehicles – to analyse the impact of the app on air quality.

The award of funding was made by the Geospatial Commission in partnership with Innovate UK. For the project, Ricardo is taking a novel approach that can be applied to existing vehicles to provide immediate benefits to air quality in towns and cities. This immediate delivery of benefits is significant because data from the Society of Motor Manufacturers and Traders shows that while the number of battery electric vehicles and plug-in hybrid electric vehicles increased by more than 168,000 units in 2020, they still only account for just 1.3% of the total number of vehicles on the road. The technology that will be developed for the project will enable drivers with hybrid vehicles to use their electric vehicle mode intelligently using the app, and enable transport authorities to understand the air quality impacts of future mobility solutions.

Mike Bell, Group Strategy Director for Ricardo said: “Ricardo is a world-leader in decarbonising transport and delivering innovative mobility solutions which are enabling the movement of people and goods more sustainably, efficiently and safely. We are very pleased that in receiving this funding from the Geospatial Commission, we can make a significant difference to people’s health and well-being by improving air quality in towns and cities around the world.”

As well as the national competition funded taxi study, Ricardo will extend the research activities to longer-term objectives around improving urban air quality. Ricardo will investigate how data from its proprietary RapidAir® air quality dispersion modelling software can be used in conjunction with vehicle and traffic simulations to understand the full impacts of clean air zones. The impacts on congestion and emissions from brakes and tyres will also be captured, and then optimised for greatest effect across a whole geography. Ricardo will also develop a simulation approach to offer an evaluation on future mobility systems: from electrified or zero emission buses on prescribed routes through to single-person autonomous electric vehicles. These will provide transport authorities with recommendations to reduce emissions and improve air quality.



With many transport authorities reviewing their urban planning costs as they continue to deal with the impacts of the global pandemic, Ricardo will demonstrate how data and insight can provide a holistic, detailed picture of air quality for an individual town or city, to enable cost-effective and insight-driven, sustainable mobility solutions.

This latest funding award will build upon the first phase of the project, undertaken in early 2021, which evaluated the feasibility and benefits of making clean air zones dynamic, rather than fixed, to improve even further the effectiveness of geo-fencing technology.

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About Ricardo

Ricardo plc is a world-class environmental, engineering and strategic consulting company listed on the London Stock Exchange. With over 100 years of engineering excellence, we provide exceptional levels of expertise in delivering leading edge and innovative cross sector sustainable products and solutions, helping our global customers increase efficiencies, achieve growth and create a cleaner and safer future. Our mission is clear -- to create a world fit for the future. For more information visit www.ricardo.com

About the Geospatial Commission

The Geospatial Commission was established in 2018 as an independent, expert committee responsible for setting the UK's geospatial strategy and coordinating public sector geospatial activity. It is part of the UK government's Cabinet Office and aims to unlock the significant economic, social and environmental opportunities offered by location data and to boost the UK's global geospatial expertise. [Click here](#) for more information.

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