



HERE, working with TfL, improves air quality in London by enabling environmentally friendly traffic management

- *Traffic management solutions contributed to 20% reduction in NO_x exposure*

September 30, 2021

Amsterdam – HERE Technologies, a leading location data and technology platform, and Bosch, a leading global supplier of technology and services, announced their activities with Transport for London (TfL) to measure and improve air quality in the London Borough of Lambeth by reducing traffic congestion. The project led to a marked improvement in localised air quality, smoother traffic flow, reduced traffic congestion and a greater understanding of how wind and the weather affect the dispersion of pollutants across the inner-city area.

In 2019, it was announced that more than 2 million Londoners lived in areas where NO₂ levels regularly exceeded the legal limits for air pollution. Backed by the Mayor of London's Transport Strategy's¹ emphasis on sustainability, TfL looked for innovative ways to measure and understand air quality and to target local traffic congestion as one of the major sources of pollution.

The first step to enable Environmentally Sensitive Traffic Management was to use probe data from HERE. This data was essential to understanding the dynamic flow of vehicles passing through the Brixton neighborhood and to model the emissions emitted. Secondly, the team installed 17 air quality sensors that detected a range of pollutants including NO₂ and O₃, as well as particulates PM_{2.5} and PM₁₀. HERE probe data and TfL traffic volumes were then collected for traffic analysis and included in a dispersion calculation that considered the impact of topology and weather on air quality. This resulted in a high-accuracy emission heatmap of Brixton town centre. This heatmap is updated hourly, accurate down to 20m, and allows traffic managers to better understand and adapt their traffic mitigation solutions.

HERE data enables the analysis of congestion on a micro-level for improved traffic management and city planning. HERE aggregates voluminous data about traffic flow and congestion from hundreds of sources, including anonymized data from connected vehicles and mobile applications. The insights HERE provided on vehicle speeds, down to a specific road segment, generated the model of real-time driving behaviour and traffic dynamics in particular areas of the Borough of Lambeth.

Gino Ferru, General Manager EMEAR and Senior Vice President at HERE Technologies, said: "Road transport accounted for 33% of emissions of nitrogen oxides in the UK in 2019². By collaborating with Bosch on the Air Quality Solution, HERE is helping cities such as London to not only analyze the origin of local air pollution, but to decrease it by putting in place Environmentally Sensitive

¹ <https://content.tfl.gov.uk/the-mayors-transport-strategy-update-2020-21-acc.pdf>

² <https://www.gov.uk/government/statistics/emissions-of-air-pollutants/emissions-of-air-pollutants-in-the-uk-nitrogen-oxides-nox>



Traffic Management. We are proud to be reporting today that the traffic management solutions put in place in London helped reduce the proportion of NO_x by 20% and delivered the Mayor's goal of improving air quality. We look forward to expanding our collaboration to other London boroughs and to offering our services in many other cities."

Ian Larbey, Air Quality Lead for Bosch UK, said: "We have conclusively reduced emissions and improved traffic flow in Brixton and that's a fantastic outcome. With our highly accurate air quality monitoring and modelling coupled with key additional data points, we ended up with a sophisticated model that enabled us to understand the best way to improve air quality. We've made a real difference in Brixton and we're excited about the huge potential we have to improve the air quality in other areas of London but more widely in the UK and beyond."

Rikesh Shah, Head of Commercial Innovation at Transport for London (TfL) said: "We are proud of the work achieved in Brixton and through this new approach of co-innovating, with Bosch, the London Borough of Lambeth and HERE Technologies. We applied an approach that put users front and centre and could be adapted to explore different innovative solutions to move further forward with the vital work to improve London's air. Toxic air pollution in the capital is still the biggest environmental risk to the health of all Londoners and by using smart technologies such as those provided by Bosch we can help London breathe easier."

HERE Technologies will be giving a webinar about "Smart Tools for Smart Cities: Using Geospatial Data to Improve Quality of Life" on Thursday 30th September at 5 pm CET. Please register [here](#).

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About HERE Technologies

HERE, a location data and technology platform, moves people, businesses and cities forward by harnessing the power of location. By leveraging our open platform, we empower our customers to achieve better outcomes - from helping a city manage its infrastructure or a business optimize its assets to guiding drivers to their destination safely. To learn more about HERE, please visit www.here.com and <http://360.here.com>.