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TRADE RELEASE

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CLEAN AIR ZONE TRIAL LAUNCHED IN BIRMINGHAM
12 month research project gathers information on vehicle emissions
to explore ways to improve air quality in the city centre

A research project that gathers information on vehicle emissions in Birmingham got underway last month as part of the Government's ongoing efforts to meet EU air quality targets.

In December 2015, the UK Government announced plans to introduce Clean Air Zones in cities, including Birmingham, by 2020. These Zones will not affect private car owners, but would aim to discourage the most polluting vehicles, such as old buses, coaches and lorries, from entering the zone.

The new project, developed by Birmingham City Council in collaboration with public services provider Amey and global technology company Siemens, involves deploying seven Automatic Number Plate Recognition (ANPR) cameras and associated equipment at strategic locations on key routes into Birmingham city centre to capture data on the Euro emissions classification of vehicles.

The data collected from the trial will help give an indication of the environmental impact of the 'polluting' vehicles (based on a number of scenarios) and explore potential mechanisms to improve air quality in the city centre and develop a Low Emission strategy.

The Government has submitted information to the European Commission (EC) which indicates that the West Midlands region will not be compliant with current targets until 2025 – which is 15 years beyond the compliance date and 10 years after an extension already



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granted by the EU. If the UK is not able to satisfy the EC's conditions, then the European Court of Justice has the power and remit to issue financial penalties of up to £300m per year on the UK. This potential huge financial penalty can be passed down by central government to local authorities, cities and towns.

Clean Air Zones have been identified by the Department for Environment, Food & Rural Affairs (DEFRA) as a potential mechanism, not only to improve air quality in urban areas but to also help avoid potential financial penalties, and have funding made available to local authorities to study their feasibility.

Birmingham City Council is part of the West Midlands' Low Emissions Towns & Cities Project which is part-funded by DEFRA and includes resource provision from all seven West Midlands local authorities and their partner organisations. The information gathered during the trial will contribute to scoping studies being undertaken by the council and DEFRA to confirm current overall emissions levels and identify tipping points whereby the levels become legally acceptable based on the types of vehicles in use.

The camera solution for the trial in Birmingham uses visually unobtrusive roadside equipment and combines monitoring and communications technology, supported with back office software which safely stores and analyses data, predicting the potential impact and business cases for different Clean Air Zone scenarios as well as indicating some of the more intangible benefits to society.

For the first time in such a trial, the back-office system is hosted on a cloud, meaning that local authorities such as Birmingham are not required to host any expensive IT infrastructure to make the technology work.

Ultimately the trial will help the council shape the Clean Air Zone recently mandated by the Government.

Cllr Lisa Trickett, Cabinet Member for Sustainability at Birmingham City Council, said:
"Successive governments pushed the use of diesel technology as a way of reducing



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environmentally harmful carbon emissions – but the knock-on effect has been an increase in levels of pollutants that are harmful to human health, such as nitrogen dioxide in towns and cities across the country.

“Road transport emissions are reported to account for around 600 premature deaths each year in Birmingham alone – meaning this is a 21st Century public health scandal, and there is no escape from the need to look at how we can reduce these emissions.

“Here in Birmingham we have been concerned by this for a long time. Through our Birmingham Connected urban mobility plan and the Birmingham Development Plan we are looking at how we can deliver better long-term sustainable public and private transport options to alleviate wider issues of traffic congestion, but we also need to do something on air quality.

“The government’s announcement of Clean Air Zones for a number of towns and cities entirely justifies the efforts we have been making for some time on this front, however I want it to be made absolutely clear that we are not talking about issuing fines or charges at this stage – we are simply gathering data on the Euro classification of vehicles coming into the city that is essential to informing our clean air plans going forward. Any eventual Clean Air Zone would also not apply to private motor vehicles and this is not a congestion charge.”

The project is being managed by Birmingham City Council’s existing partner, Amey, bringing together the current team managing and maintaining Birmingham’s highways network with the company’s Smart Data and Technology team who are working closely with Siemens to develop and implement an end-to-end solution.

Dr Rick Robinson IT Director, Smart Data and Technology at Amey commented:

“As a public services provider, we manage infrastructure that directly affects the communities that we serve on behalf of our customers. We are constantly exploring new ways for technology to improve those services, in a way that is cost-effective for our customers, and that creates real outcomes and tangible benefits.



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“Amey is in a unique position to launch innovative projects alongside the core services that we deliver for our customers, due to the deep and long-lasting partnerships we form with them; through our network of partners in the technology industry, Universities and innovation ecosystem; and by accessing the wealth of knowledge and expertise held by the four Centres of Excellence established with our parent company Ferrovial Services.

“By supporting trials such as Birmingham City Council’s Clean Air Zone study, and collaborating with our established partners such as Siemens, we are able to bring together multiple organisations to develop and deliver tailored solutions with the specific needs of our customers and the communities they serve at their core.”

The system implemented in this trial is Siemens’ GreenZone solution. According to Luke Normington, Head of Enforcement Solutions for Siemens, the system is efficient, scalable, highly secure and significantly more cost effective than any currently installed system. He added:

“Since 2008, Siemens has operated the London-wide Low Emission Zone, the first of its kind in the UK and the largest in the world.”

“GreenZone meets an expanding need in the marketplace globally - helping cities, towns and national governments to improve the air quality for their citizens and providing an effective tool for meeting local, national and international environmental and climate change commitments.

“In addition to hosting the system, Siemens can also offer innovative funding solutions to ease the cost of the deployment for customers, including rental packages that cover all equipment and implementation costs.”

The system was installed in February, and after an initial commissioning period, data is expected to be collected for a full 12-months from April 2016.

-ENDS-



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Notes to editors

About the trial

The trial will cost £50,000. Of this, £30,000 has been agreed by the Low Emissions Towns and Cities Programme (LETCP) Project Board as the project is seen to have transferable knowledge which will benefit the wider West Midlands. These monies are sourced from Defra grants and Defra have approved their use for this project as the Department is keen to explore the viability of LEZ within major urban areas. The outputs from the project will be clearly communicated to the LETCP Project Board for use by the board. A £20,000 contribution has also been proposed by the city council because as noted above the project aligns with current thinking (the Birmingham Connected White Paper acknowledged the possible need for a LEZ).

The West Midlands Urban Area air quality data is as follows (Source: Air Quality Plan for the achievement of EU air quality limit value for nitrogen dioxide (NO₂) in West Midlands Urban Area (UK0002), December 2015):

Annual mean NO₂ model results

	2013	2020	2025	2030
Road length exceeding (km)	189.9	4.3	0	0
Background exceeding (km sq)	0	0	0	0
Maximum modelled concentration NO ₂ (µgm-3) (a)	70	47	38	35
Corresponding modelled concentration NO _x (µgm-3) (b)	185	118	93	84

(a) Annual Mean Limit Value = 40 µgm-3

(b) NO_x is recorded here for comparison with the NO_x source apportionment graphs for 2013 presented in Annex B of this plan. Limit values for EU directive purposes are based on NO₂

The locations for the ANPR cameras are as follows:

- Site 1 A456 Broad Street
- Site 2 A457 Summer Hill Road
- Site 3 A38(M) Aston Expressway (two cameras)
- Site 4 B4100 Digbeth
- Site 5 A38 Bristol Street
- Site 6 A34 Newtown Row

For the Government's press notice on the establishment of Clean Air Zones in Birmingham and other towns/cities, please visit: <https://www.gov.uk/government/news/improving-air-quality-in-cities> or for a general overview: <https://www.gov.uk/government/collections/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2015>



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Amey

Amey is a leading UK public and regulated services provider with over 21,000 employees.

Amey operates over 320 contracts, providing an unrivalled range of services including utilities, highways, waste management, rail, justice solutions, social housing and facilities management. Services are underpinned by our leading consulting and asset management capabilities, which allow us to offer stand-alone or integrated service solutions to a range of clients.

In 2010, Amey won the Birmingham Highways Maintenance and Management Service contract to manage and maintain the city's roads over the next 25 years. The contract will see a huge investment into the city's road network and Amey is working in partnership with Birmingham City Council to deliver the contract. The works include refurbishment and improvement of the city's roads, footways, bridges, tunnels, street lighting and traffic control systems.

About Siemens

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 165 years. The company is active in more than 200 countries, focusing on the areas of electrification, automation and digitalization. One of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is No. 1 in offshore wind turbine construction, a leading supplier of gas and steam turbines for power generation, a major provider of power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. The company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2015, which ended on September 30, 2015, Siemens generated revenue of €75.6 billion and net income of €7.4 billion. At the end of September 2015, the company had around 348,000 employees worldwide.

Siemens was established in the United Kingdom more than 170 years ago and now employs 13,760 people in the UK. As the world's largest engineering company, Siemens provides innovative solutions to help tackle the world's major challenges. Siemens has offices and factories throughout the UK, with its headquarters in Frimley, Surrey.

Further information is available on the Internet at www.siemens.com

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