## Fuel saving for transport

With high oil prices and pressures to go "green", transport managers have a headache. Their customers are demanding a lower carbon footprint and reduced emissions, and most solutions to achieve this further increase costs at a time when the industry is already facing escalating fuel costs. However, there is a product that offers a solution to these issues – Envirox fuel combustion catalyst.

Oxonica, an Oxford University spin-out, has been engaged in extensive research and development both in the laboratory and in the field over the last seven years to create Envirox. In February this year, Oxonica announced another important milestone in the commercialisation of Envirox. Stagecoach, one of the largest bus operators in the UK, began testing Envirox in 2004 and has recently completed a validation trial. As a result Stagecoach has confirmed their intention to continue to use Envirox across its 7,000 vehicle UK bus fleet.

The original trial in 2004 involved 1,300 vehicles over a twelve month period and demonstrated fuel savings of more than 5% following which Stagecoach adopted the product. The recent validation trial was conducted on more than 550 Stagecoach vehicles and demonstrated a statistically significant fuel saving of 4.3% after 3 months, which is consistent with the results from the original trial at the same point.

Oxonica has also completed a further trial in collaboration with Stagecoach at a major, independent, vehicle testing facility in the UK that demonstrated reductions in particulate emissions of 18% after 3 months.

Adrian Havlin, Stagecoach Group Technical Engineer, said: 'Our vehicles have driven more than 700 million miles using Envirox, and to achieve a consistent result across a diverse fleet over 3 years testifies to the robustness of the technology. We are particularly pleased with the performance of the product both in ultra low sulphur diesel and in blends containing biodiesel, which are now in widespread use across our fleet.'

Envirox has been positively tested in 12 trials, in 7 countries, on approximately 25 different vehicle / engine combination and in a range of working environments including buses, coaches, trucks, light commercial vehicles, static power generators, and municipal vehicles. The product has been subjected to rigourous health and safety tests and is registered for use in Europe.

Recently Oxonica also completed successful tests in Italy and Germany, which demonstrated fuel savings of 5-8%. An independent vehicle laboratory test in Italy also showed reductions in particulate emissions of up to 19%, confirming previous studies.

Unlike many environmental technologies that are still under development, Envirox is available today and does not require any engine modifications for use. A report for DEFRA on Environmentally Beneficial Nanotechnologies by Oakdene Hollins, recognised that products like Envirox could be implemented immediately across the UK with the potential to save 2-3 million tonnes of carbon dioxide per year.

Oxonica is confident that Envirox could help the UK to meet its carbon footprint targets in an economically responsible manner. Envirox fuel combustion catalyst represents a real immediate opportunity to address the serious challenges represented by climate change.

