

# Mobile Mapping System to Measure Street Level Pollution



Bluesky, UK, is helping develop a mobile mapping system to measure pollution at street level. Working with the University of Leicester, the Leicestershire based aerial mapping company is helping to fund further research into air quality in one of the UK's largest cities. Scientists armed with specially developed air quality sensors are taking to the streets in electric vehicles in order to measure the true extent of air pollution.

Information captured by these sensors will be used to inform research into the pollution caused by city centre traffic and investigations into alternative travel solutions. Bluesky is already collaborating with the University on the use of world first spectrometer mounted on an aerial survey plane and the development of a network of low cost ground based air quality sensors.

Electric vehicles are part of the solution to urban air quality issues, commented Dr Roland Leigh from the Department of Physics and Astronomy at the University of Leicester, it therefore makes perfect sense to use them to collect data that will be used to monitor levels and aid research into other ways of managing this growing threat.

James Eddy, technical director of Bluesky International and industrial associate at the University of Leicester added that working with the University they have already created the world's first aircraft mounted system for generating citywide maps of nitrogen dioxide. His company was therefore pleased to be able to build on this success with additional funding. The development of both mobile mapping systems and static sensors will provide additional data to aid research and remedial projects

## Mapping software

To begin with two electric cars leased from local company Cenex will be fitted with specially developed sensors that can measure pollutant concentrations around the city. The cars will measure air quality during everyday work for the project team including the installation and maintenance of a static air quality monitoring network. This data will be spatially referenced for use in Geographic Information Systems (GIS) and other mapping software and will be used in conjunction with data already captured by a specialist aerial survey system developed by Bluesky and the University.

This project is part of a programme funded by the European Regional Development Fund (ERDF) to partner graduate research expertise with growing SMEs, such as Bluesky, in the East Midlands region. Innovation through the Research Support Accelerator (IRSA) aims to accelerate the development and exploitation of novel research via a unique collaboration between businesses, academic expertise at the University of Leicester and a high quality graduate who will be given the opportunity of using a full year of research and development to enrol for a postgraduate degree.