Science for Environment Policy

Electric car schemes in Berlin and Paris: sustainable mobility approaches compared

Two shared electric car schemes, in Berlin and Paris, have been examined by a recent study. Although both schemes are progressive, Berlin's takes an 'inter-modal' approach to encouraging sustainable mobility, because it integrates electric cars into the wider public transport system. The scheme in Paris, however, focuses on cars as the main form of transport.

Road transport accounts for a fifth of total EU CO_2 emissions, and urban transport is estimated to account for around a quarter of transport emissions. The passenger car represents around 74% of all private road transport within the EU, and the number of cars per 1 000 people has increased by 20% between 1990 and 2009.

This increase in private transport poses serious challenges for cities, raising issues of traffic congestion, health impacts and environmental damage. It is thus recognised that urban mobility needs to be more sustainable and many European cities are experimenting with new technologies and transport systems.

Such measures include policies aimed at increasing carpooling, for example, or new public transport systems, such as shared public bicycles. Purely electric cars, which are well suited to short-distance urban travel, represent a relatively new means of sustainable transport.

The public use and environmental benefits of electric cars within a city will depend on how well they are integrated into the wider transport system. Views of 'sustainable mobility', driven by local political and socio-economic factors, will result in different ways of implementing electric car projects within cities.

For this study the researchers gathered and summarised information from press releases, news stories and interviews, and used them to compare two different approaches to sustainable mobility using electric car sharing, BeMobility, in Berlin, and Autolib', in Paris. Subscribers pay to access Autolib' cars only, while BeMobility is linked in to the wider transport network and can be used through Berlin's regular monthly travel pass.

Both schemes are designed to address pollution, congestion and other traffic management problems, such as noise, through partnerships between public and private bodies. However, the way they were developed and implemented reflects the outcomes of local political processes and business negotiations.

BeMobility represents the interests of a range of groups from researchers to a consortium of industrial stakeholders. This scheme is 'intermodal' – aimed at using electric cars to connect citizens to other forms of transport, including buses, bikes and trains. In contrast, Autolib' is run by a single company in partnership with local government. This scheme aims to use electric cars to reduce the number and use of private cars and provide infrastructure for electric vehicles, such as charging stations.

The researchers classified BeMobility's approach as 'progressive', as it focuses on intermodal transport, and Autolib' as 'conservative', because it still considers the car as a dominant form of transport. They concluded that both cities likely benefited from the environmental effects of these electric car projects. However, BeMobility suffered from some problems, including poor cooperation from the automotive industry, and struggled to provide as many cars as expected. In contrast to this Autolib', run by a company who used the scheme to showcase their battery technology, provided sufficient cars but was 'politicised' from the outset, leading to a general debate on the reliability and viability of electric cars.