



**CiViTAS**  
Cleaner and better transport in cities

# Sustainable Mobility Highlights 2002-2012

CIVITAS is a European Initiative involving more than 200 cities across Europe in the testing and sharing of new technologies and innovative concepts to achieve sustainable and integrated strategies for urban transport.

## CLEAN FUELS AND VEHICLES

### Hybrid, clean and electric vehicles

Increasing the use of alternative fuels and of clean and energy-efficient vehicles as well as enhancing their integration into the urban transport system are key to reducing local air and noise pollution. These measures also curb global greenhouse gas emissions, contribute to the health of citizens and decrease dependency on fossil fuels.

In the field of clean fuels and vehicles CIVITAS cities have worked on clean fuels and fuelling infrastructure; cleaner fleets; and hybrid, clean and electric vehicles. This highlight focuses on the last category.

When embarking on a programme to popularise cleaner fuels, it is advisable, and perhaps easiest, to start with captive vehicle fleets (e.g. public transport, taxis or car sharing companies). This allows a city to work through some of the technical and logistical problems of supplying vehicles with alternative fuels. Fleet managers normally have the capacity to develop a purchasing policy, and having a captive fleet can provide the critical mass to obtain better prices. The implementation of cleaner vehicles by public bodies creates the initial demand for fuelling facilities. Once they are installed, cleaner vehicles can be more easily promoted to individual car users and private fleet managers.

Experiences have shown that introducing cleaner vehicles and fuels in a city can require up to four years. This may seem like a long time, but after implementation of the measure the benefits can be seen immediately (better air quality, enhanced image of public transport, etc.).

**For this reason, the CIVITAS Initiative has realised 10 innovative measures in nine different cities on hybrid, clean and electric vehicles. This highlight offers some of the most successful and eye-catching among these to inspire other European cities.**



### Hybrid buses

To develop a fleet that meets the highest standards of energy efficiency, many CIVITAS cities gradually replaced their buses with hybrid vehicles. Tests with hybrid prototypes in **Donostia-San Sebastian**, Spain, indicated that energy savings of over 20 percent can be achieved when operating the vehicles in the public transport network. The bus company has trained drivers and technical staff in the use and maintenance of the new vehicles and biodiesel blends.

Other inspiring cities are Ghent (Belgium); La Rochelle (France); and Ljubljana (Slovenia).





## Promotion of clean vehicles

A green tariff is a reduced parking rate for owners of electric or hybrid vehicles. It is a simple but strong tool to promote the use of less polluting vehicles. The city of **Funchal**, Portugal, introduced a green tariff alongside several awareness raising campaigns, including conferences and exhibitions of less polluting vehicles. In **Berlin**, Germany, new leasing models for CNG vehicles were developed to allow fleet operators to convert their fleets to compressed natural gas (CNG) in a cost-effective way. Subsequent discussions focused on the possibility for optimising the leasing of CNG vehicles through the revaluation of residual value and flexible km-based contracts.

Another inspiring city is Rotterdam (Netherlands).

## Charging facilities for electric vehicles

**Brighton & Hove**, United Kingdom, was the first city in the UK outside of London to operate and monitor the use of a significant number of on-street electric vehicle charging points. Electric vehicles were registered as electric-car drivers from all over the UK were invited to sign up for free and use the charging points. Both the parking at the charging point whilst charging, and electricity used to charge the car, are free for a trial period.

**Vitoria-Gasteiz**, Spain, launched its Electric Mobility Logistic Centre as part of a mid- to long-term strategy to push the manufacturing and introduction of electric vehicles in its own municipality. Located in the city centre, it combines an information point on electric mobility for the public, a recharging centre for electric vehicles and bicycles, and the base of operations for the city's car-sharing scheme.



## Renewable energy production

The city of **Brescia**, Italy, set the objective of producing enough renewable energy to power the batteries of the hybrid buses in the municipal fleet. The energy consumption of each bus ranges between 25 kwh and 40 kwh, which amounts to an annual mean energy consumption of 12,000 kwh per bus. A new photovoltaic plant with an average production of 48,000 kwh a year was therefore realised in 2008.

Learn more at [www.civitas.eu/clean-fuels/hybrid-electric](http://www.civitas.eu/clean-fuels/hybrid-electric)

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