



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

Cleaner fleets are better fleets

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; hybrid, clean and electric vehicles and cleaner fleets. This highlight focuses on the last of these.

CIVITAS supports several aspects of the implementation of cleaner fleets, including feasibility studies and analyses of needed legal and institutional frameworks. To enhance the positive effects of a cleaner fleet, the introduction of clean vehicles can be accompanied by the establishment of environmental zones; incentives such as reduced parking fees for drivers of cleaner vehicles; marketing campaigns; and eco-driving courses for clean vehicle drivers.

Experiences have shown that introducing cleaner vehicles and fuels in a city can take 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.

CIVITAS aims to accelerate the uptake of clean vehicles in captive fleets. The CIVITAS Initiative has therefore realised 66 measures in 43 different cities in this field. This highlight features some of the most successful and eye-catching among these to inspire other European cities.



Cleaner public transport fleets

Many CIVITAS cities ambitiously invested in upgrading their public transport fleet with more efficient hybrid, compressed natural gas (CNG) and/or biofuel buses with the aim of reducing fuel consumption by at least 20 percent and emissions by at least 25 percent. Procuring clean vehicles is a big investment and requires careful consideration of the technology and model that best suits the city's specific situation. CIVITAS provided cities like **Monza**, Italy, with the means to gather best practice examples from other cities and develop technical specifications for the procurement and operation of the vehicles. Clean public transport vehicles are particularly relevant in **Funchal**, Portugal, where the rugged and steep topography is very demanding on bus engines. The city procured 18 midi-buses that can replace larger vehicles during off-peak hours. Hotels are invited to sell bus tickets to their guests, personalised with their hotel brand.



Other inspiring cities are Barcelona (Spain); Bath (United Kingdom); Berlin (Germany); Bologna and Brescia (Italy); Bremen (Germany); Bristol (United Kingdom); Brno (Czech Republic); Bucharest (Romania); Burgos (Spain); Genova (Italy); Gorna Oryhovitsa (Bulgaria); Graz (Austria); La Rochelle (France); Ljubljana (Slovenia); Malmo (Sweden); Monza (Italy); Nantes (France); Perugia (Italy); Ploiesti (Romania); Porto (Portugal); Potenza (Italy); Preston (United Kingdom); Rome (Italy); Rotterdam (Netherlands); Skopje (former Yugoslav Republic of Macedonia); Stockholm (Sweden); Suceava (Romania); Szczecinek (Poland); Venice (Italy); Winchester (United Kingdom); and Zagreb (Croatia).



Cleaner municipal fleets

Gothenburg, Sweden, introduced clean waste collection vehicles with multiple environmentally friendly technologies in the vehicle design. They include an engine running on compressed natural gas/compressed biogas (CNG/CBG) that automatically shuts itself off at the collection point as well as an electric engine and a water-based alternative to the traditional hydraulic oil. Measurements indicated a reduction of emissions between 50 and 65 percent. Fuel consumption fell by 49 percent.

Other inspiring cities are Aalborg (Denmark); Donostia-San Sebastian (Spain); Graz (Austria); Lille (France); Malmo (Sweden); Perugia (Italy); Rotterdam (Netherlands); and Stockholm (Sweden).

Contributing to research on biofuels

Many CIVITAS cities evaluated the use of biofuels in their urban transport system and the conditions needed for further implementation. All these cities introduced biofuel blends for their fleets after a testing period. **Ljubljana**, Slovenia, launched an innovative pilot project testing pure plant oil in cars and tractors, adding a new option to the choice of renewable fuels. A network of biofuel producers, research institutions, students and other stakeholders was also created on research and implementation of measures.

Other inspiring cities are Aalborg (Denmark); Coimbra (Portugal); Cork (Ireland); Craiova (Romania); Donostia-San Sebastian (Spain); Gdansk (Poland); Ghent (Belgium); Iasi (Romania); Tallinn (Estonia); and Toulouse (France).



Cleaner vehicles for private transport

Bologna, Italy succeeded in increasing the share of private vehicles powered by liquefied petroleum gas (LPG) and compressed natural gas (CNG) to 15 percent. Vehicles operating on LPG and methane were exempted from the city's access restrictions. A methane-fuelled car sharing fleet was successfully introduced. After a feasibility study on the use of biodiesel, hybrid vehicles or electric vehicles in its car sharing system Cambio, the city of **Ghent**, Belgium, introduced an electric shared car and promoted eco-driving to the users. Those who tested the electric vehicle were extremely positive and demand for an electrical car was high. An innovative sustainable purchase strategy and the introduction of electric cars led to a 15 percent cut in fuel consumption for the Cambio fleet. In the short term, eco-driving resulted in a 8.5 percent decrease in fuel consumption. In **Graz**, Austria, a large taxi company was the engine for introducing biodiesel to the public.

Learn more at www.civitas.eu/clean-fuels/fleet

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