

Towards advanced road transport for the urban environment (City Mobil)



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Every major city suffers from the problems that are related to increasing mobility demands. Cities have to deal with pollution, congestion and safety problems caused by increasing traffic. Traditional means of traffic regulation are not sufficient anymore and drastic solutions, like banning cars from central areas or levying high taxes are unpopular. CityMobil will contribute to solutions that will allow increased mobility in a well-controlled manner, with low emission systems resulting in higher safety levels and increased efficiency, using separate infrastructure or even the existing roads.

Background

The problems of mobility in cities are clear. However, the possible solutions are still in their infancy. A shift from the private automobile to a multi-modal approach is the preferred trend. Here we can think about buses, trains, metros and other individual transport modes or a combination of these. We must recognise the need for both high speed scheduled mass transport as well as individualised on-demand short distance transport. This is why we have to test and evaluate new solutions based on advanced city vehicles. At the end of the project, we will have a better understanding of the capabilities of new technologies and what the expected gains can be. There will be proposals for certification of advanced transport systems on a European level. Tools will have been created to disseminate the project results.

Objectives

The CityMobil projects aims to test and demonstrate new solutions for mobility in various European cities. The goal is to achieve a more effective organisation of urban transport, resulting in a more rational use of motorised traffic with less congestion, less pollution, safer driving, a higher quality of living and an enhanced integration with spatial development.

Results

Within the City Mobil project, there are three sites where an actual automated transport system is in operation and where the first results have been evaluated. These will not just be demonstrations of technological possibilities, but fully fledged integrated solutions that will be operated and maintained in the long term.

CityMobil Main Demonstrations

In the *Spanish town of Castellón* (near Valencia), *dual-mode buses* have been deployed, which can be operated in automatic and manual mode. This area is one of the fastest growing areas in the Valencia region. The growing tourist industry combined with more than 20 000 students at the University means that the city is in even greater need of an efficient



public transport system. In the first phase the system will connect the University and the city centre. In future there will be connections to commercial centres, the port and the beaches, resulting in a system which will have a total length of over 40 km.

At the *new exhibition centre in Rome*, a fleet of *fully automated Cybercars* will operate in the car park shuttling visitors between the car park and the exhibition centre. In the final phase the system will provide a fully on-demand service, and vehicle reservation will be integrated with the car-park management system. Each time a car passes the car-park gate it will receive the parking space number to which it has been allotted and an automated vehicle will be called to wait for the car occupants at the closest stop to the allotted space.

At *Heathrow airport*, a *Personal Rapid Transit (PRT) system*, called ULTra, will carry people from the car park to the terminals. ULTra is a system based on small, light and energy efficient vehicles on a dedicated guide way network offering a personal, automated taxi service with point-to-point, non-stop travel and no waiting. The Heathrow scheme will take the form of a pilot project, 3.9 km in length, linking the passenger car park and terminal areas. Success of the pilot may lead to the roll out of the system over the whole of Heathrow and to other airports, with links to public services in the local area.

Showcases and city studies

In addition to the three large scale demonstrations there are other activities for local authorities and other bodies with an interest in automated systems: these are the small-scale demonstrations, the showcases and the city studies. Showcases aim to show to a predominantly local audience (authorities, general public, businesses, press) what automated transport can look like in practice. A small fleet of 3 cybercars and 3 advanced city vehicles has been built to be brought to interested cities for a one to two week demonstration. A Cybercar showcase has already taken place in the city of Daventry (UK). Others are planned in Vantaa (Finland) and Trondheim (Norway). An Advanced City Vehicle showcase took place also in La Rochelle (France). The city of Uppsala (Sweden) was selected as a site for a city study evaluating the feasibility of a pilot PRT system. In Madrid, Trondheim, Vienna and Gateshead, modelling studies have been conducted and evaluated. The city of Lausanne (Switzerland) has been selected as a city for a small-scale demonstration.

For more info visit the website: <http://www.citymobil-project.eu>

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