

## Editorial

When you read this 4<sup>th</sup> CityMobil Newsletter we will be about 2 years into the 5-year project and I am really happy with the progress that we are making. The first results, in the shape of reports that are written to serve as a foundation for the work in the remaining part of the project, have been completed and the CityMobil partners are happy with the high quality of these deliverables. However, you do not have to believe us, because you can now judge for yourselves.

The first public deliverables have been published on the website. One of these deliverables is a state-of-the-art report, describing the status of automated transport at the beginning of the CityMobil project. Then there are two deliverables exploring the possible future of automated road transport by describing a vision of that future and a number of application scenarios for passenger and freight transport. There is also a deliverable describing the five technologies that CityMobil is focusing on and which sets out the common scenarios defined for the project and the specific scenarios used in the sub-projects. Then there is one that sets out the evaluation framework for the project, helping us on the one hand to see whether we are reaching our goals and on the other hand to judge what the contribution of the CityMobil project to sustainable urban transport will be.

The CityMobil partners invite you to read through these deliverables. They should give you a good idea what CityMobil is about and, although the published deliverables are completed, we welcome any comments that you might have. The learning process never stops and we will be happy to include new views and opinions in later project results.



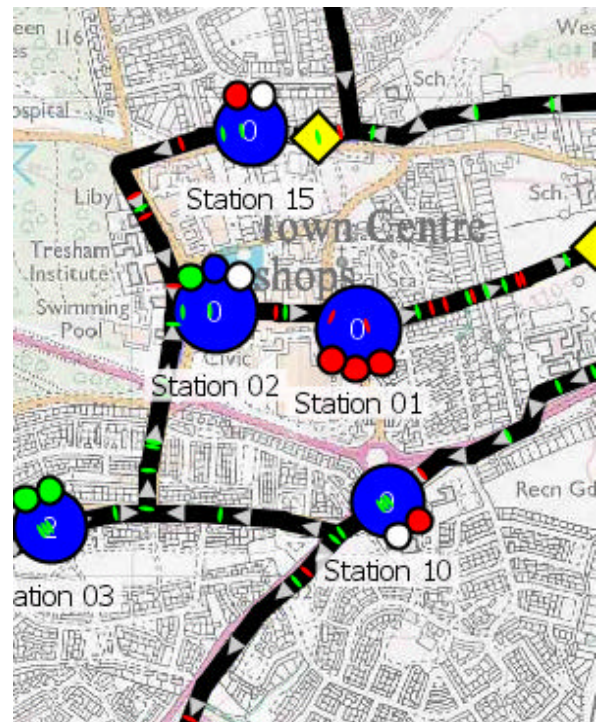
**Jan P. van Dijke**  
Senior Project Manager  
TNO Science and Industry

## Project update

### Build your own PRT system!

The simulation package which ATS has produced as one of

the CityMobil Deliverables will shortly be available on the CityMobil website, as well as on ATS's own website. With easy-to-follow user guidance, even the non-expert can take a map or aerial view of a chosen area and locate the stations at suitable points, then join them up with guideway loops. The package will give assistance to make sure the network is fully practical, and then the user can run the system for a simulated two hours, at much faster than real time if required. The simulation represents the detailed movements of the vehicles, with empty vehicles running in to fill berths at the stations, and passenger groups arriving at random and occupying the vehicles, which then drive off to the "selected" stations according to a demand matrix which can either be input manually, or estimated by the package. The micro-simulation outputs a range of statistics after each simulation, including the average waiting time at each station and overall (which is generally a fraction of a minute) and the total number of vehicles used.



Part of simulation network showing blue stations, red empty vehicles and green loaded vehicles. Empty station berths are white, and blue shows that a vehicle is unloading



## La Rochelle and Genoa Advanced City Cars showcases

Next Autumn, the cities of La Rochelle in France and Genoa in Italy will host the first CityMobil Advanced City Cars showcases. These cities have joined the CityMobil Reference Group because of the mobility problems they have in their city centres. CityMobil partner CRF (Fiat Research Centre) will showcase three electric vehicles, two Fiat Panda and one new Fiat "Cinquecento", (500) with advanced driving assistance, platooning and automated parking capabilities.

La Rochelle, with a population of about 77 000 inhabitants, is part of the Urban Community of La Rochelle, which has a total population of 147 000 inhabitants. La Rochelle, a very innovative city that had the first electric car-sharing system – LISELEC – in service since 1999, is seeking to offer a good alternative to the private car in the city centre. The car-sharing system is currently limited to the city centre, and



*A vehicle operating as an Advanced City Vehicle*

La Rochelle would like to extend it to the rest of the Urban Community. The showcase will allow the city and the car-sharing operator to assess if the Advanced City Car technologies would help in the expansion of the service. It will also allow users to see how the driving assistance capabilities would help them while driving and parking in the narrow streets of the city centre. A conference on advanced vehicles will be held the 22 September as part of the showcase. Genoa, with a population of 700 000 inhabitants, has one of the largest medieval city centres in Europe, with a surface area of 113 hectares. Despite the large number of monuments, citizens and tradesmen are reluctant to settle there because of the difficult driving conditions, caused by the narrow hilly streets. The city would like to use the Advanced City Car technologies, especially the driving assistance and automated parking systems, to help link up the city centre with the modern area of the city and thus improve the quality of life in the area. The showcase will take place in the framework of Genoa's Science Festival.

Agenda:

La Rochelle showcase: 20 September – 5 October 2008, Place de Verdun, La Rochelle, France.

Genoa showcase: 23<sup>rd</sup> October – 4<sup>th</sup> November 2008, Piazza Sarzano, Genoa, Italy.

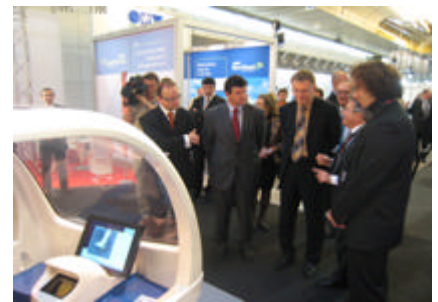
## CityMobil at TRA 2008 in Ljubljana

CityMobil was invited by the European Commission to have a stand at the Transport Research Arena 2008, which took place in Ljubljana, Slovenia, between 21 and 24 April 2008. The stand presented a video about CityMobil's large scale demonstrations and showcases, and a CyCab cybercar from INRIA was on display.



*Children love the cybercars*

This cybercar was equipped with an obstacle detection system based on a laser scanner. The image of the environment generated by the laser scanner was shown to the public in real-time, both in a screen inside the vehicle and in another screen on the stand. The transmission of the image from the vehicle to the screen in the stand was made using the CyCab's wireless Vehicle-to-Infrastructure communication capabilities. The European Commissioner for Science & Research Mr



*The European Research Commissioner, the Slovenian Minister of Transport and the CityMobil's Project Officer visit the CityMobil stand at TRA 2008*

Janez Potocnik and the Minister of Transport of the Republic of Slovenia, Mr.

Radovan Žerjav, visited the stand on the opening day. The presence of the CyCab in the exhibition generated much interest among the press, both from local and international media. CityMobil was also presented in two different congress sessions.



## New project to continue Reference Group activities

A new project to raise awareness of automated transport systems has been evaluated positively by the European Commission. The project, called CityNetMobil, will essentially take forward the activities of the Reference Group of the CityMobil project. The Reference Group comprises cities with an interest in advanced transport systems. Some have been selected to organise activities locally to raise public awareness of the automated people systems, including a small-scale demonstration or a showcase.

CityNetMobil will take over coordination of the Reference Group as its activities within CityMobil will cease at the end of 2008 (although CityMobil will itself continue until 2011). A further five sites will be selected for the organisation at each site of an awareness raising event, featuring the installation of a small showcase of moving automated vehicles, a conference and an exhibition with audiovisual aids and posters. Membership of the Reference Group will be reopened so that other transport authorities considering automated systems can join. Subject to the contact signing, CityNetMobil should start in the coming months. For more information, contact the coordinator: [adriano.alessandrini@uniroma1.it](mailto:adriano.alessandrini@uniroma1.it)

## News from the demonstrators

### Heathrow airport update

Following a review of the Personal Rapid Transit pilot scheme for Heathrow's new Terminal 5 by the new owners of the airport, the project has been confirmed and construction began in earnest in November last year. Most of the elevated guideways have now been built, and the network infrastructure should be completed by the end of May. Two pre-production vehicles are being trialled very satisfactorily at ATS's Cardiff Test Track, and the sixteen vehicles which will operate on the network will be delivered throughout the rest of the year. These have ample room for baggage and/or a wheelchair, and will travel non-stop from the car park to the Terminal, and from the Terminal to whichever of four stations in the car park is selected for the return journey. Passengers will not normally have to wait at all, since there will be an empty vehicle waiting for them at the station. Control equipment and the Control Centre will be installed during the summer, and the system tested exhaustively throughout the autumn and winter to ensure it


is absolutely reliable. It will begin public operation, replacing the current shuttle bus service, in spring 2009.

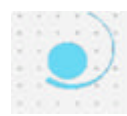


*Double-track ULTra guideway threads its way under the roadway as it approaches Terminal 5*

## Partner profiles

**28 organisations** representing industry, research and public authorities, are partners in CityMobil. Each issue of the CityMobil newsletter profiles three partners.

 INRIA is a French public-sector scientific and technological organisation. The research carried out at INRIA brings together experts from the fields of computer science and applied mathematics covering the following areas: Networks and Systems; Software Engineering and Symbolic Computing; Man-Machine Interaction; Image Processing, Data Management, Knowledge Systems, Simulation and Optimization of Complex Systems. The department IMARA (Informatique, Mathématique et Automatique pour la Route Automatisée) has been involved over the last 15 years in the application of Information Technologies in the field of ITS. IMARA has participated in numerous European research programmes in this field such as Carsense, DIATS, Stardust, Cybercars, CyberMove, REACT, NetMobil.

 GEA is a Swiss company providing consultancy in town and regional planning. It has broad experience of working with Swiss cities. GEA has worked together with Transitec Consulting Engineers (specialised in transportation systems studies as well as traffic management) on urban mobility challenges for 15 years, including the joint production of the "VIP methodology" concerning the use of Individual Public Vehicles in urban centres and the "VOLT'air's methodology" concerning



a universal approach for the conception and integration of automated transport systems in urban centres. GEA has been involved in various demonstrations of automated transport systems, including the Antibes CTS demonstration in June 2004 and the Nancy's Cycabs demonstration in June 2005.



Polis is a platform for dialogue and cooperation on transport issues for cities and regions around Europe. It currently represents over 70 city and regional authorities. The objective of Polis is to support European cities and regions to improve the quality of life of their citizens through innovative measures for sustainable transport. Through its working groups, annual conference and publications, Polis promotes the exchange of good practice. The network facilitates access to European initiatives and research programmes for its members, to help find solutions to challenges facing Europe's local/regional transport systems. Polis also advocates the development of an adequate policy framework at the European level to achieve sustainable mobility in cities and regions. Polis has participated in many EU projects including Silence, CVIS, Niches, Ask-IT and Pilot

vehicles for passengers and goods, embedded in an advanced spatial setting.

## Related events

- *2008 IEEE Intelligent Vehicles Symposium*  
4-6 June 2008, Eindhoven, <http://www.iv2008.nl>
- *ITS Europe Congress 2008, Geneva*  
4-6 June, <http://www.itsineurope.com/>
- *European Transport Conference 2008,*  
6-8 October, <http://abstracts.etcproceedings.org/>
- *ITS World Congress 2008, New York*  
16-20 November, <http://www.itsworldcongress.org/>
- *Polis conference, Barcelona*  
25-26 November 2009, [www.polis-online.org](http://www.polis-online.org)
- *ICT 2008, Lyon, 25-27 November 2009,*  
[http://ec.europa.eu/information\\_society/events/ict/2008/index\\_en.htm](http://ec.europa.eu/information_society/events/ict/2008/index_en.htm)
- *ATRA conference, Heathrow*  
March 2009, <http://advancedtransit.org/news.aspx>

## What is CityMobil?

CityMobil is an Integrated Project, co-funded by the Sixth Framework Programme for RTD (FP6), whose main aim is to achieve a more effective organisation of urban transport by developing integrated solutions based on advanced concepts for innovative autonomous and automated road