Dear Reader,

Going through this third newsletter, you will discover the key progress that has been made by the partners of the CIVITAS MOBILIS project over the last three months. Having celebrated the first anniversary of the project, the implementation of most of the 48 measures has now started.

One of the highlights of this period was the Project Steering Group meeting which was held on the 13th of January in Venice. Besides the high level of participation and lively debate on mobility planning, the participants will bear in mind the magnificent setting and the warm welcome of our colleagues from Venice.

From this year onwards, we will organise several workshops; a multidisciplinary team of experts, practitioners and stakeholders will discuss one of the measures of the CIVITAS MOBILIS project. The most recent workshop held on the 31st of March in Toulouse dealt with deal with the limitations and key success factors of Commuter Plans while Parking Management Policies will be discussed in Cologne on the 21st of June. I would like to take advantage of this occasion to invite you to contact us if you want to attend these workshops.

In the meanwhile, I wish you a pleasant and informative read of this third newsletter.

Alexandre Blaquiere
CIVITAS MOBILIS Project Manager
Tisseo / SMTC

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Focus Article

B-game - traffic training for children

In Odense it has always been traditional to work with routes to school to increase the safety of children. In this work both campaigns and physical improvements have been effective means. And now we will soon be able to introduce a new game in a wide range of road safety initiatives. It is called “B-game” and it is developed and implemented in cooperation with the local school department and with help from national stakeholders such as The Danish Road Safety Council.

The new traffic game will be online. The purpose of the game is to give children knowledge and understanding of potentially dangerous situations as cyclists in traffic. Furthermore the child can practise typical situations in traffic in a safe way and learn how to notice warnings of sound and visual character. The interactive game can also teach children about distances, speed and motion.

The purpose of “B-game” is not only to increase the safety of children when walking and cycling in traffic. The purpose of the game is also to strengthen mobility of children and the bicycle as their transport choice.

The children learn about traffic through a number of planned and structured video sequences to make the situation as real as possible. We have also chosen to use video sequences to underline the reality. Characteristic of the game is also that it doesn’t build on rules and regulations but more on changing behaviour in traffic.

B-game will be accessible from the Internet which means that children can play it both in school and at home. At home the children can play the game with their parents as training before going out in the traffic.

The target group is 50 public and private schools in Odense. The aim is to reach 90% of the children in 5th and 6th grade in 2005/06. The reason for focusing on this target group is, among others, that we want to decrease the high frequency of accidents in this age group. It is our hope that B-game combined with traffic training in schools and the cyclist test can give children the maximum training.

B-game will be launched on the 27th of April and the Alderman of the Environmental & Technical Department will be present.

Working with B-game is not only a local cooperation project involving an advertising agency and the School Department. Cooperation is also established internationally – both in the CIVITAS forum and in other European cities.

Velkommen til Familien BilFri

Familien BilFri er et projekt for dig, der vil ændre transportvaner og prøve andre måder at komme frem og tilbage på. Vær med i 6 måneders og se, om du og din familie kan blive mindre afhængig af bilen. Vi søger 400 familier i Odense til at deltage i projektet med start fra 1. april.


For at vi kan se effekten af projektet, skal familien føre en simpel køredagbog.
Environmental Zones In Odense

The work with alternative environmental zones has started - both in the residential areas and in the city centre.

In the residential areas a questionnaire was carried out to ask people living there about traffic, neighbourhood, and playgrounds and so on. A brochure was distributed inviting the citizens in the areas to participate on www.levendeveje.dk. A bicycle was at stake along with lamps. We drew lots among the answers and 10 lucky people from each area won.

In both areas a working group has been established with members from the residential areas and from the Parks and Roads Administration.

For more information contact Troels Andersen, ta@odense.dk

Cycle Scanners In The Odense City Centre

In the city centre 4 cycle scanners have been installed. The cyclists in the city will see the scanners when coming in to the city. The point is to get the cyclist to register himself. When he has scanned his social security card he has a chance of winning a bicycle, tickets to the cinema and other prizes. The aim of the scanners is to create more bicycle traffic and to reward people for taking the bike to the city.

For more information contact Troels Andersen, ta@odense.dk

The Car Sharing System In Venice

ASM manages the car sharing system which was presented in a site visit during the Venice workshop in January. There are a total of 34 cars in the fleet distributed over 10 pick up points.

Thanks to the MOBILIS Project it has been possible to provide a report regarding consumer vehicle preferences and a report on the relative cost-benefits of vehicles running on alternative fuels. As a consequence of these studies, ASM has bought nine new cars and equipped them with on board computers; two cars in the ASM fleet will be adjusted to the needs of disabled people.

ASM also plans to open a CNG filling station for its vehicles; the lengthy authorisation process is currently underway.

In addition, in order to encourage the use of car sharing, 4 agreements have been reached with public and private institutions to allow their employees to use the car-sharing system’s vehicles with very advantageous conditions.

For the same reason, car collection and return points have been set up in Mirano, Marcon, Marghera, Favaro, Carpenedo.

At the moment there are 1,478 contracts in force and 2,630 users (valid member cards).

For more information contact Silvia Cecchetto, acquisti@asmvenezia.it

GPS To Monitor Waterborne Traffic In The Venice Lagoon

When visiting Venice in January 2006, the MOBILIS project partners were presented the GPS satellite system for the control of waterborne traffic in the lagoon in the Municipal Police offices.

With MOBILIS funding, the system is being adapted to be compatible with data on the ACTV waterbus fleet. Previously, the Municipal Police centre and the ACTV centre were dedicated to specific traffic subsystems but will now allow for the overall management of the water transport systems through the new joint centre.

This system functions automatically and foresees that boats are equipped with an electronic device which permits the identification and localisation of boats allowed to transit the limited access zone, the localisation of boats under bridges and the localisation of boats without devices through cameras. This system can detect the speed of a boat, compare it with the limits that apply to that part of the lagoon and communicate via internet to the nearest police launch; thus creating the conditions for sanctioning those who do not respect speed levels.

For more information contact Manuele Medoro, manuele.medoro@comune.venezia.it
Bicycles In Venice

Safe home school routes, secure bicycle racks and a communication campaign to promote the increased use of the bicycle in Venice. These are the projects which the City of Venice is carrying out through the Bicycle Office in MOBILIS. These projects have solid foundations: the city BICI plan. This plan foresees the extension of the bicycle network, from 50 km to 96 km.

So far, with regard to the MOBILIS projects, the areas in which the 50 new safe bicycle racks will be located have been chosen. Some potential safe home school routes have been identified.

Through MOBILIS the bicycle office hopes to increase the total number of trips made by bicycle by about 10% by the end of this year.

For more information contact Gabriele Vergani, gabriele.vergani@comune.venezia.it

Opening of a Mobility Agency in the South-East of the agglomeration of Toulouse

At the beginning of March, just in front of the railway station of Lab ge Innopole in the area of SICOVAL (south-east of Toulouse), the official opening of the area’s “Mobility House” took place. Based on a partnership between Tisseo-SMTC and the SICOVAL, the mission of the Mobility House will be to centralise mobility information and services and to give advice to the general public and transport users.

The Association Covoituval, which focuses on the promotion of carpooling in the SICOVAL area, is the first resident of the house. This association provides personalised advice to (potential) car-poolers and promotes the integration of carpooling with other transport modes (e.g. train, bus, transport on demand, and the bicycle).

The “Mobility House” will gradually receive other residents and therewith increased the offer and quality of mobility advice and services. The possibility to rent bicycles will soon be available.

For more information contact Jacques Vabre, jacques.vabre@sicoval.sicoval.fr

The first High Quality Bus Corridor has just opened in Toulouse

Among the 5 High Quality Bus Corridors which are foreseen in the frame of the Urban Mobility Plan of the agglomeration of Toulouse, the “East sector” HQBC is the most advanced.

The first section (2.5 km long) has just opened. During peak hours, a bus will leave the Balma Gramont metro
station every 5 minutes and the new configuration of the lane will permit users to reduce their trip by three minutes. More importantly this will guarantee the regularity of the services. This HQBC will be opened entirely at the end of 2007 (total length of 7.6 km).
The main stops of the HQBC are equipped with 15 meter long platforms fully accessible for disabled people.

For more information contact Claire Villard, claire.villard@smtcat.fr

Launch of the Galileo measure

In December last year, the agglomeration of Toulouse was elected as the Galileo European capital of GALILEO. The CIVITAS MOBILIS measure “Demonstration of GALILEO / EGNOS services for public transport” fits in the regional aims to expand the already important aeronautic sector.
The experimentation will start in the coming month. It should validate the use of this type of satellite navigation system as a tool for localisation and assistance in the exploitation of the surface public transport network.
The project consists of three main activities. A first set of tests will map the performance of the EGNOS system in Toulouse urban area. These tests will enable a validation of the simulation tool and during a second phase simulate the potential performance of Galileo by using a 3D model of the city of Toulouse. During the last phase, the required performance level of GNSS (global navigation satellite systems) will be defined and compared with the achievable level of GALILEO and EGNOS performances.

For more information contact Richard Reclus, r.reclus@grandtoulouse.org

Workshop on safe and increased use of bicycles in Ljubljana Center

CIVITAS MOBILIS started participatory discussion on safety and increased use of bicycles in Ljubljana. Representatives of the MOBILIS project, representatives of the Ljubljana Center District Council and Ljubljana Cyclists Network identified future direction for the process. The biggest obstacle for cyclists safety is represented by the existing parking behaviour of car users. The Workshop on public participation in planning and promotion of sustainable mobility focusing on safe and increased use of bicycles was held on February 15th. Representatives of the MOBILIS project, members of the Ljubljana Center District Council, cyclists NGO and business were present.
The principal aims of the workshop were to present CIVITAS MOBILIS activities in Ljubljana, the state-of-the-art mobility situation in Ljubljana (with emphasis on the City Center), to identify the main choice factors for locations of covered bicycle shelters and to identify the main criteria for their design and construction. The workshop was facilitated with the goal of identifying key problems connected to cycling and the parking situation in the Ljubljana Center District. Discussion developed around the issues of inclusion of the district council in decision-making processes on the city level.
Participants focused on the real priorities of cycling management in the city, dealing with parking and traffic order, which have a very negative impact on cyclist's safety.
The participants identified future directions for actions:
first to strengthen enforcement of the traffic order in the city in order to provide better safety for cyclists, to appoint a special cycling coordinator on the city level and to provide better communication channels between the city administration and city districts.

For more information contact Miloš Bajt, milos.bajt@ljubljana.si

The present situation of biodiesel in Slovenia

Dr. Viktor Jejcic (Agricultural Institute of Slovenia), a Ljubljana partner in the CIVITAS MOBILIS project, presented the biodiesel situation in Slovenia at the symposium “Actual Tasks on Agricultural Engineering”, held at Opatija (Croatia) early this year. The presentation was focused on possibilities to strengthen decentralized production of rape seed for biodiesel fuel in Slovenia and also to present the CIVITAS initiative focus on alternative fuels.

By signing the Kyoto Protocol (signed in 1998, ratified in 2002) Slovenia committed to cut greenhouse gas emissions by 8% (with regard to the 1986 situation) by the 2008-2012 period. The operational program for reducing greenhouse gas emissions was passed in 2003. The use of biofuels is one of the measures laid down in the Strategy and Short-Term Action Plan for Reducing Greenhouse Gas Emissions. In the framework of the strategic goal of Slovenia to increase the degree of energy self-sufficiency, agriculture could play an important part in the area of alternative energy sources, especially biofuels. For the territory of Slovenia, a decentralized form of production of oil from rape seed for biodiesel fuel in smaller production units (decentralised production units) pressing from 0.1 t to 5 t/day and situated in different locations over the country is of extraordinary interest. Decentralized production units could operate economically and in an environmentally friendly manner if their technical equipment and working process are as simple as possible and use as little energy as possible. The economy of rape growing intended for fuel production is significantly influenced by the selling and use of rape seed cake which is left after the pressing of oil and which is considered as a strong protein feed. Since Slovenia imports a predominant part of protein feeds, a rather great interest of feed mixing plants for domestic raw material exists.

For more information contact dr. Viktor Jejcic, viktor.jejcic@kis.si

Biodiesel properties

In the Engine Research Laboratory at the Faculty of Mechanical Engineering the properties of neat biodiesel (B100), produced in Pinus Slovenia, and its blends with diesel (D2) are investigated in several conditions. By decreasing the fuel temperature and increasing the content of biodiesel in diesel fuel the fuel density increases (Figure 1). At constant fuel temperatures the sound velocity of fuels increases when pressure increases and the content of biodiesel increases (Figure 2). Bulk modulus also has a similar trend, which is higher at lower temperatures (Figure 3). On the basis of these and other investigated fuel properties, like viscosity, surface tension, cetane number and calorific value, the injection and combustion process and consequently the engine performance, fuel consumption and harmful emissions are analyzed. On the basis of numerical and experimental analysis it can be concluded that the injection delay decreases with higher content of biodiesel in fuel. This means that injection timing is advanced. For the difference in fuel injection timing, the differences in viscosity of fuels and in bulk modulus which affects the speed of sound are responsible. Higher bulk modulus (when increasing the part of biodiesel in fuel) leads to a more rapid transfer of the pressure wave from the...
pump to the needle nozzle and an earlier needle lift. Higher viscosity of biodiesel leads to reduced fuel losses during the injection process, to faster evolution of pressure and thus to advanced injection timing.

For more information contact dr. Breda Kegl, breda.kegl@uni-mb.si

**Testing use of 100 % biodiesel at LPP, Ljubljana public transport company**

After using a mixture for a period of two months the laboratory test results concluded that water was extracted from the fuel mixture and therefore the quality of fuel is not suitable for further use. Because of that and warnings from the fuel supplier, Petrol, that some chemical reactions can take place in fuel mixture which can cause damage to engines, LPP decided to use 100% biodiesel. After inspection of the fuel tank (at the filling station) it was concluded that some parts are made of elements that can be damaged if they come in contact with pure biodiesel, which can lead to fuel leakage. As a result of the inspection, the fuel supplier and LPP at first decided to build a new fuel tank. After additional consideration of all options, they decided to reconstruct the existing fuel tank at the filling station. Reconstruction work was started by Petrol d.d., who is the owner of the filling station. As soon as the fuel tank was placed in order, LPP began to use 100% biodiesel in two buses and only small modifications were made in adjustments of fuel injection as a result of analyses performed by the Faculty of Mechanical Engineering, Maribor. When using pure biodiesel there can be some problems with interior heaters (Webasto), which are not fitted to operate with pure biodiesel. If the problem cannot be solved, extra fuel tank will be installed for Webasto heaters only.

For more information contact Jošt Šmajdek, jost.smajdek@lpp.si

**Conversion of diesel bus to CNG in Debrecen**

Hajdú Volán Zrt converted one bus from diesel to CNG. The necessary equipment and parts (new bus body, gas engine, transmission, 8 cylinders and other consumables needed for the conversion) have been purchased. The conversion was carried out at the local site of the Hajdú Volán Zrt, led by the technical director and managed by the technical staff of the Company. The conversion work provided the technical staff with useful experience that can be used later. In the foreseeable future, more buses are planned for conversion.

For more information contact Teleki András, telekia@hajduvolan.hu

**Debrecen progress to new access and parking management**

The public procurement procedure concerning the study of access and parking management in the city centre has been finished and the contract has been signed. The tasks require continuous communication with the contractor because all the information needed can be got only from the municipality. The conference centre that has been finished recently requires the municipality to foster the development of its accessibility plan. The procurement procedure for the development plan and design study has been launched. The stakeholders discussed the necessary content of the call and the designers checked the area through an on site visit.

For more information contact Krajczár László, krajczar@ph.debrecen.hu

**Debrecen is discussing its sustainable traffic development plan**

The Sustainable city-traffic development plan for Debrecen is still under construction. Regular local meetings are held with the attendance of the key stakeholders including all Mobilis participants from Debrecen as well as local and national experts in some specific fields. These meetings have been recently extended to representatives of the most important organizations of civil society. The extended roundtable discussions provide the necessary consistency between the goals of the municipality and the civil sphere.

For more information contact Krajczár László, krajczar@ph.debrecen.hu
Mapping the tramway line

The public procurement procedure at DKV Rt was successful, the winning applicant has already started to plan the system. First, the tramway line had to be mapped: measurement of the stops (frequency and average duration) was essential to building a concise system. Vehicles had to be examined as well in order to find the optimal solution for embedding the necessary telemetric equipment. The resulting technical documentation and prospects for future cooperation have been discussed with the experts of DKV Rt.

For more information contact Frick Péter, fmea@dkv.hu

Sharing solutions for overcoming barriers

Rape seed production economic evaluation model in Slovene agriculture

The Agricultural Institute of Slovenia developed a simulation model for the evaluation of the production economics for rape seed on smaller estates, which enables us to ascertain impacts of specific parameters on the final result. The model represents the first of two phases of the parameter analysis of the biodiesel production from rape seed. The second phase of the model development will proceed in the direction to deal with the estering procedure using methanol and will presumably finish in the frame of the CIVITAS MOBILIS project in the year 2008.

In the existing model (first phase) parameters and available data on rape seed production, seed pressing, cleaning of gained oil and cake attributes are contained. The model considers cake as an high-energy fodder. Cultivation, fertilization, seeding, protection, harvesting and transport are considered in the model. Seed and straw are contained in harvest. In oil production parameters of pressing energy, productivity and the efficiency of pressed-out oil are contained. It is based on the assumption that the producer is pressing oil on his own using continuous pressing equipment. The model also takes into account the energy needs of the working procedures. The model is schematically represented in figure 1: values given take into account existing prices in Slovenia. It does not consider subsidies, offered for rape seed cultivation for energy purposes by the Ministry of agriculture, forestry and food.

Basic model presumptions are:
- Rape seed cultivation intensity is determined as moderately high. The model evaluation of costs is based on technology, where the expected harvest in normal weather conditions is 3 t/ha (7% humidity).
- Work use (human and machinery) is determined by standards, presuming 1 ha of cultivable plot in 1 km distance from the farm. The work use for separate phases of machine services includes preparation of machines and their transport to the cultivable plot.

Profit at pressing 1000 kg rape seed

Figure 1: Schematic presentation of the rape seed production economic evaluation model in Slovene agriculture; expected profit is 117 EUR/t of pressed seed; Kek = 1.52; values are rounded off and for orientation only.
machine service costs calculation a general criteria is used: each machine, owned by a farm, has to be employed for so many hours, so that the cost of the machine service is lower (or equal to) than cost of the service done by a similar but rented machine. Fertilizer consumption is determined on the basis of technical standards, presuming medium good soil supply (level of main plant nutrients in the soil). Fertilizer quantity is expressed in nutrients.

Economy of cultivation boundary:
Economy of cultivation is expressed by the economic coefficient (Kek), meaning the ratio of acquired value to cultivation costs. In principle, a specific field product is interesting for farming, if Kek amounts to at least 1 (or 100 %) or if acquired value is the same as cultivation costs.

For more information contact dr. Viktor Ječič, viktor.jejcic@kis.si

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Project management events

**MOBILIS organized a workshop dealing with Commuter Plans**

On the 31st of March, Tisséo-SMTC and its MOBILIS partners organized a technical workshop dealing with Commuter Plans and related innovative mobility solutions. This workshop was an excellent opportunity to exchange experience, know-how and ideas between the experts of the different MOBILIS sites and local stakeholders. This workshop concluded with a visit of the Airbus Factory where a Commuter Plan has been put into practice.

**Roundtable discussions in Debrecen**

There are regular meetings and roundtable discussions with the representatives of the municipality, the Mobilis team and the representatives of the civil society, providing continuous communication and the necessary feedback for every stakeholder about the current state of the Civitas initiative and programs in Debrecen, while creating mutual understanding of every stakeholders needs and goals.

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Upcoming events

**Workshop on parking policies & parking management in Cologne**

During the next MOBILIS meeting which will be held in Cologne the coming 19th, 20th and 21st of June, a workshop dealing with parking policies and parking policies management will be organised. This workshop will take place on Wednesday the 21st of June and will be an opportunity to gather local stakeholders and experts working in this field in order to ensure the transfer of knowledge.

**CIVITAS Forum in 2006**

The European Commission has just announced that the coming CIVITAS forum will be organised in Burgos on the 26th and 27th of September. In view of a new CIVITAS call for proposals announced by Mr. Barrot, the Vice-president of the European Commission, for the year 2007, the event will be of special interest for cities that aim at becoming future CIVITAS demonstration cities. The significant involvement of the CIVITAS MOBILIS partners is already foreseen for this event.
CIVITAS MOBILIS cities and partners

In 2004 the cities of Toulouse (France), Debrecen (Hungary), Ljubljana (Slovenia), Odense (Denmark), and Venice (Italy), and their main local mobility stakeholders established a European partnership for “Implementing Mobility Initiatives for Local Sustainability” – of which the CIVITAS MOBILIS project is the physical result. MOBILIS aims to implement radical strategies for clean urban transport in all five cities and to create a new culture for clean urban mobility in the wider framework of sustainable development. The project will enable the involvement of all relevant stakeholders and the transfer of good practices to other urban communities across Europe.

Altogether 30 partners work on a range of mobility improvements scattered within eight technical and five policy themes during the four years lifetime of the project.

The Main Partners:

DEBRECEN (H)
http://www.debrecen.hu/
- Municipality of Debrecen
- DKV Debrecen Transport Company
- Hajdú Volán Transportation Inc.
- Hajdú-Bihar County State Road Maintenance Company
- University of Debrecen

VENICE (I)
http://www.comune.venezia.it/
- City of Venice
- ACTV S.p.A.
- Azienda Servizi Mobilità S.P.A.
- VESTA S.p.A. Venezia Servizi Territoriali Ambientali
- Agire – Agenzia Veneziana per l’Energia
- Commissario Delegato dal Governo per il Traffico Acqueo nella Laguna di Venezia
- Forma Urbis S.a.S.

Supporting partners:

ODENSE (DK)
http://www.odense.dk/
- City of Odense

LJUBLJANA (SLO)
http://www.kibljana.si/
- City of Ljubljana
- Ljubljana Public Transport Ltd.
- Chemical Industry TEOL
- University of Maribor, Faculty of Mechanical Engineering, Institute of Energy, Process and Environmental Engineering
- Agricultural Institute of Slovenia
- Regional Environmental Center for Central and Eastern Europe

SUPPORTING PARTNERS
- Mobil21 (B)
- Rupprecht Consult – Forschung & Beratung GmbH, (D)

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If you want to register for a free subscription, please send an e-mail to milena.maregaguest.arnes.si. The CIVITAS MOBILIS E-Newsletter is available at http://www.civitas-mobilis.org/.

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