New CIVITAS Policy Note
‘Smart choices for your city: Clean buses for your city’

What are the available cleaner energy sources for buses and how do you choose one?

In an important milestone for the CIVITAS initiative, the CIVITAS WIKI project released its first Policy Note last February. The note, recently presented in a public webinar organised by the thematic group Collective Passenger Transport, provides a clear and in-depth information to help policy makers in the European municipalities, public transport operators and other local decision makers in their choice of cleaner public transport.

The main outcomes of the policy note with respect to the main bus technologies are:

- **Diesel buses:** offer the lowest total cost of ownership (TCO). With the introduction of the Euro VI engine technology in 2014 they are also very low in pollutants and GHG (Green House Gas) emissions.
- **Natural gas buses:** readily available from the major manufacturers, but costs are higher. Pollutant emissions advantages have diminished with the introduction of Euro VI diesel technologies compared to diesel.
- **Buses running on biofuels:** have TCO comparable to those of diesel buses. Pollutant emissions depend on the particular type and blend of biofuel, feedstock and production process. With introduction of Euro VI engine technologies the differences between biofuel and diesel buses has become lower.
- **Diesel and gas hybrid buses:** reduce GHG and pollutant emissions by around 20%. They have a higher compared to regular buses TCO which may diminish over time.
- **Full electric buses:** starting to become commercially available. Driving range and costs of batteries are still an issue. Where a trolleybus network exists, wider utilisation of these buses should be considered.
- **Hydrogen fuel cell buses:** considered as a promising option but are currently still in an experimental stage. Purchase costs for prototypes are very high.
- For both electric and hydrogen fuel cell buses high investment costs in infrastructure are necessary.

The introduction of cleaner buses can contribute to the implementation of the EU 2020 targets in the short term in several ways. For diesel buses, high blends of first or second generation biodiesel can be used to increase the renewable energy share above the blending limit. For gas engines, biogas can be used to increase the renewable share by up to 100%. The application of hybrid drivelines with diesel or gas engines can further reduce GHG emissions by about 20%. In the longer term and in line with EU 2050 targets, full electric buses and possibly also hydrogen fuel cell buses are most promising. They boast high energy efficiency in combination with the possibility to use solar or wind renewable energy. Full development of these technologies will take several decades, therefore it is important to start gain experience in the field through pilot demonstrations as soon as possible.

Against this backdrop, if financial resources allow, municipalities and public transport operators should aim for the zero-emissions or closest scenario. Within the current economic and financial crisis, conventional diesel buses (Euro VI) and associated hybrid models represent a very good environmentally friendly option as well.

The complete document is available here.
Energy Savings in Gdynia Trolleybuses - Supercaps for a More Efficient Trolley System

The Przedsiębiorstwo Komunikacji Trolejbusowej (PKT) trolleybus transport operator in Gdynia, one of the CIVITAS DYN@MO Project partners, are moving forward in developing super capacitors for a more efficient trolley system.

The aim of this CIVITAS DYN@MO measure is to install an energy saving device represented by a super capacitor on one of the PKT’s 10 power supply substations in order to increase the energy efficiency of the whole trolleybus system. In May 2013 PKT announced a public tender for the supply of a super capacitor with the desired technical specifications. The tender was completed in July and a contract was signed for the design, production and installation of the ‘supercap’ with MEDCOM Ltd, a reputable Polish manufacturer.

The technical project and design of the super capacitor has been completed with respect to power-related electronics and construction. Internal and external work was performed on Wielkopolska substation, preparing the ground for the installation of the supercaps bank. Construction work included a new cabling network inside the substation and raised concrete pedestals for the actuators devices outside the station. This is included a super-condenser battery. The launch of the supercap is planned within this month.

The super capacitor will serve as a device to capture and store electricity recuperated by a braking trolleybus and not used at that moment by another trolleybus in need of power. The process of recuperation takes place when the trolley brakes and the vehicle’s engine operate under the generator’s ‘work mode’. Additional energy accumulated by the supercaps can also be consumed later by other trolleybuses, e.g. when there’s a temporary energy deficit. Previously, this recovered braking energy was simply wasted and lost in the resistor, but the new supercap promises to overcome this challenge.

Overall, this CIVITAS DYN@MO measure will significantly reduce energy consumption and enhance the power management system while ensuring rational usage and levelling the voltage on the network.

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Gdynia is member of the CIVITAS DYN@MO project.
Reloading CIVITAS

Thematic Groups

New webpages, interactive tools and thematic activities to foster cooperation among CIVITAS practitioners.

CIVITAS is all about exchanging knowledge, learning from each other’s experience and showcasing good practices. In CIVITAS Thematic Groups, city officials and mobility professionals can meet each other, discuss hot topics, exchange ideas, share interesting sources, organise collaborative activities and learn about how to transfer successful measures into their local context and their own practice.

Thematic Groups connect peers working in every specific field of action of sustainable urban mobility and are linked to the 8 CIVITAS thematic categories, metaphorically reflecting the basic “building blocks” of an integrated sustainable urban mobility strategy, plus 2 horizontal themes (integrated planning and public involvement).

Membership is free and open to all planners, implementers and decision/ policy makers who want to share their experiences, skills and work together and profit from a set of collaborative activities like policy analysis, peer review exercises, study tours, webinars and training workshops. Each group is supported by a Thematic Moderator from the CIVITAS support actions WIKI and CAPITAL, and has its own webpage on the CIVITAS website. The webpage http://www.civitas.eu/thematic-groups-all gives a general overview and provides the direct link to each group.

Thematic Group webpages are designed as dashboards giving to members the possibility to follow and contribute to all the contents that are linked to their field of activity or specific interest: related measures, featured news, events and resources. Members are also invited to edit their own profile to highlight their skills or specific experiences and to post contents as public or visible only to the other members.

Last but not least, a new platform for thematic cooperation called CIVITAS Interactive has been launched: four types of interactions can be started on the platform, Work, Dialogues, Ideas and Help.

Cities and professionals having an active role in thematic groups will be informed about the opportunities to receive funding to co-organise or take part in certain activities like study tours, training workshop, policy analysis and peer review exercises.

For more information please contact training@civitas.eu

WORK
showcase, map and follow sustainable urban mobility implementations

DIALOGUES
debate of urban mobility, raise feedbacks from the community

HELP
develop a new urban mobility concept in a collaborative way

IDEAS
Can’t find what you need? Ask a question to the community
From April 2014 round about 500 residents of two housing units, one in Rosviertel near the historic center of Aachen and the other one in Frankenberger Viertel in the Eastern part of the city, will be able to use two new mobility stations. This will enable residents to rent electric cars and use a charging station for their electric bikes.

Aachen is getting ready for brave new additions to its mix of sustainable transport solutions. The action is part of the measure dubbed Electromobile Living, implemented within CIVITAS DYN@MO. It has been developed in cooperation with Cambio CarSharing, public housing company Gewoge AG, the City of Aachen, the Aachen traffic association Aachener Verkehrsverbund (AVV), the RWTH Technical University and the Municipal energy supply company (STAWAG).

The energy of one of the mobility stations will be generated by using a photovoltaic system installed on the roof the housing unit. The residents will have the chance to use two electric cars to cover a distance of up to 100 kilometres and will benefit from a special rate for using the public transport system. The provision of electric bikes will be realised as part of a city-wide pedelec-rental system providing up to 1,000 electric bikes at 100 locations across Aachen in 2015.

The final objective involves developing a model that can be applied to other districts or housing companies in Aachen. Studies will have to show if the mobility patterns of the residents might be concretely changed following this new model. Monitoring will start in 2016.

Aachen is member of the CIVITAS DYN@MO project. For more information contact Axel Costard axel.costard@mail.aachen.de

CITY EVENT

7th International Cities for Mobility Congress in Stuttgart – “City on the move: Rethinking and implementing mobility”

The City of Stuttgart has the great pleasure to host the 7th International Congress of the network Cities for Mobility which will take place from 1-3 June 2014.

The event will focus on the importance of connecting mobility and urban planning for a better quality of life in cities. It is aimed at municipal authorities, decision makers, scientists, entrepreneurs and civil society representatives worldwide. The Cities for Mobility congress is part of the recently released Mobility Action Plan of the Mayor of Stuttgart, Fritz Kuhn. According to the recently published study Future of Urban Mobility 2.0 by Arthur D. Little, Stuttgart has a world-class car sharing system.

The congress has a practical approach and contains dialogue oriented presentation formats, thematic workshops, a poster session, and exciting site events, such as mobility excursions about car-sharing, public transport and city planning. Attendance is free of charge and registration will be available beginning of April at www.cities-for-mobility.org

Stuttgart is the coordinator of CIVITAS 2MOVE2 project.

For more information contact Patrick Daude Patrick.Daude@stuttgart.de
New mobility plan for the City of Nova Gorica

The city of Nova Gorica is developing a cross-border Sustainable Urban Mobility Plan for the whole regional area of Nova Gorica, Gorizia and the surrounding municipalities.

Both being members of the CIVITAS Forum Network, the cities of Nova Gorica and Gorizia lie side by side close to the Slovenian-Italian border, respectively covering an area of 280 km² and 41 km². The first has a population of 32,000 inhabitants while the second of 36,000. The two cities have a long, common history and were growing together but separated by a strong border for more than 50 years. Since the 1990s, the once-strong separation by country began diminishing until 2007, when Slovenia become part of the EU’s Schengen area and the cities were finally able to remove the artificial barrier that separated them.

Since then the twin cities have embarked on many initiatives and joint projects. Both local administrations are working on several such projects, one of the most successful being the bus line operated by both public transport providers and connecting the two cities. Another joint project is a bike sharing scheme to easily enable people living in the two cities to cycle from one to the other.

Recently, within the project PUMAS, co-funded by the European Commission, [http://www.pumasproject.eu], the city of Nova Gorica and the Urban Planning Institute of the Republic of Slovenia started to elaborate a Sustainable Urban Mobility Plan involving both cities, Nova Gorica and Gorizia, and the surrounding municipalities of Šempeter-Vrtojba, Brda, Kanal ob Soči, Miren-Kostanjevica and Renče-Vogrske, which together comprise a total of 27,000 inhabitants.

The project includes a set of mobility measures addressing common challenges to all the municipalities as result of ideas, visions and goals shared by stakeholders and responding to local common problem and a regional mobility strategy. All the municipalities involved are intent on moving forward in this ambitious project as they are quite familiar with urban mobility measures and spatial planning. This is slated to happen once mutual coordination is enhanced and some legal requirements on both sides are overcome.

Cross-border SUMP’s and their complexity, including both the territorial and the administrative dimension, will be the main theme of the 2014 Annual PUMAS Conference, held in Nova Gorica on the 4 June 2014. The conference will be the occasion for Nova Gorica to lunch the pilot project but other transnational experiences will be also presented. More information on the event is available here: [www.pumasproject.eu/news/2nd-pumas-conference-nova-gorica]

Nova Gorica is member of the CIVITAS Forum Network. [http://www.nova-gorica.si/]

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CIVITAS has organised two study visits to showcase the achievements of Bologna and Tallinn in the framework of the CIVITAS MIMOSA project. Financial support is available to urban mobility experts who wish to participate in both study visits.

The study tour in Bologna, from 10-11 April 2014, will present four measures that have been implemented in the city. These measures support the use of new technologies to foster sustainable behaviour and include flexible access restrictions to the city centre, ‘mobility credits’ encouraging a transition to more sustainable transportation, a new traffic control centre, and the use of clean vehicles in public transportation. They also involve encouraging the transition to more sustainable transportation, a new traffic control centre, and the use of clean vehicles in public transportation. The city’s efforts in promoting and investing in sustainable modes of transport have been recognised through a number of awards. These include the 2010 CIVITAS Award for Technological Innovation, the European Mobility Week award in 2011, and the 2013 CIVITAS Award for Public Participation.

For more information: http://www.civitas.eu/content/civitas-study-tour-bologna

On 22-23 May the city of Tallinn, capital of Estonia, will host a study visit on making public transport more attractive for citizens. Participants will have the opportunity to learn about three measures aiming to improve public transport services and making public transport more popular. The visit will also present the results of the free public transport system implemented by the municipality, the first to be put in place in a European capital.

For more information: http://www.civitas.eu/content/civitas-study-tour-tallinn

For more information contact anja.decunto@eurocities.eu
OTHER UPCOMING EVENTS

CIVITAS Study Tour in Vitoria Gasteiz, Spain, 19 & 20 June 2014

The study tour will cover the improvements made in Vitoria-Gasteiz (a city that was European Green Capital in 2013) in the field of urban mobility, since our Sustainable Mobility and Public Space Plan started in 2009 and through the involvement of Vitoria-Gasteiz in CIVITAS+ MODERN.

The main focus of the visit will be the superblocks model, which is the main piece of the Sustainable Mobility and Public Space Plan of Vitoria-Gasteiz. It will show how the superblocks schema is being implemented in the city centre, together with the refurbishment of some streets (Sancho el Sabio, Avenida Gasteiz) and the way pedestrian, bicycle and public transport network are being re-designed according to this innovative schema. The tour will also cover the traffic calming project in 47 streets of the city centre. Finally, the improvements made in the city’s bicycle infrastructure and some interventions adopted dealing with freight distribution in the pedestrian city centre.

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Vitoria-Gasteiz is member of the CIVITAS Forum Network and participate in the project CIVITAS MODERN.

https://www.vitoria-gasteiz.org

E-buses at the DYN@MO Summer University 2014

The experience with electric buses in urban public transport is one of the central topics of the 2014 DYN@MO Summer University. The programme includes an overview of electric buses in Europe from the Trolley project as well as practical examples from the cities of Gothenburg in Sweden, Aachen in Germany and Gdynia in Poland.

The DYN@MO Summer University is held at the University of the Balearic Islands, from 14-16 May 2014, in Palma de Mallorca, Spain.

The latest programme is available in the events section of the CIVITAS website http://civitas.eu/content/civitas-dynmo-summer-university . Participation is free of charge and the online registration is now open.

Join us in Palma!

Palma is member of the CIVITAS DYN@MO project. For more information contact Emilio Lopez Sancho elopez@conselldemallorca.net
**CIVINET NEWS**

A Bilingual general assembly for the Civinet Slovenia-Croatia Network

More than 60 participants attended the first CIVINET Slovenia-Croatia Network’s General Assembly, held in Ljubljana, Slovenia, on 6 February 2014. A number of politicians, including 15 mayors, vice-mayors and an EC representative, jointly collaborated in establishing the Network’s Political Committee and electing its chair, Ljubljana’s Vice-mayor Professor Janez Koželj. So far, the CIVINET Slovenia-Croatia Network counts 12 cities from Slovenia and 12 from Croatia, as well as 12 key stakeholders.


CiViNET Spain and Portugal Workshop and Management Committee

Cities within the CiViNET Spain and Portugal Network organised their third Management Committee meeting, hosted in the Headquarters of the Spanish Federation of Municipalities and Provinces in Madrid. The Management Committee was very happy with the high level of attendance, as 19 out of the 21 members were able to participate in the event. In conjunction with the Management Committee meeting, the Network organised a workshop about Sustainable Urban Mobility Plans, where the Spanish cities of Castellon and Aranjuez, as well as the Portuguese city of Cascais, presented their experiences in the field. The next meeting of CiViNET Spain and Portugal will be held in May in Alcobendas (Madrid).

[http://www.civitas.eu/civinet/civinet-espa%C3%B1a-y-portugal](http://www.civitas.eu/civinet/civinet-espa%C3%B1a-y-portugal)

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CIVINET Deutscher Sprachraum inspires and supports sustainable urban mobility in the German language area.

More than 100 million people are living in the German-language area of Europe and more than 70% of them reside in urban areas. The area’s cities are working valiantly to support sustainable transport, also by applying the CIVITAS approach. Equipped with this responsibility, they are identifying needs of citizens in this respect and outlining competence required.

Since its foundation in November 2013 the CIVINET Deutscher Sprachraum was able to attract more than 25 cities, mobility experts, universities and organisations, to become full members of the association. The primary objective of CIVINET Deutscher Sprachraum is to promote the exchange among local authorities, research institutions and experts in the field of sustainable and environmentally friendly urban mobility. This budding CIVITAS cluster is bound to bring many benefits to citizens and exciting changes in mobility that could potentially be duplicated in other regions and areas of Europe.

[www.civitas.eu/civinet/civinet-german](http://www.civitas.eu/civinet/civinet-german)

[ciivinet_deutschsprachig@civitas.eu](mailto:ciivinet_deutschsprachig@civitas.eu)

**About the MOVE newsletter**

This quarterly newsletter serves to inform all those with an interest in sustainable urban mobility. It reports on developments in the field, including activities of pioneering CIVITAS cities and policy updates from the European Commission. Contributions are sourced from participating cities and organisations, as well as from the Directorate General for Mobility and Transport.

For further information on the MOVE newsletter please contact:

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Publisher INOVA+, Portugal

Editors INOVA+, Portugal and INTRASOFT Luxembourg

Layout INTRASOFT, Luxembourg

**Acknowledgement**

This publication is produced under the auspices of CIVITAS WIKI, a Support Action for coordination and dissemination funded through the EC’s Seventh Framework Programme for Research and Technological Development. WIKI stands for Advancing Sustainable Urban Transport in an Enlarged Europe through CIVITAS.

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The CIVITAS Initiative is co-financed by the European Union.