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## Editorial

### Dear Trolleybus Community,

I would like to open this editorial with congratulations on the 100th anniversary of electric transport in Esslingen and the 60th anniversary of trolleybus transport in Solingen. Together with the TROLLEY partner Barnim Bus GmbH (BBG) from Eberswalde, which by the way celebrated its 70th anniversary in 2010, all three German trolleybus cities joined forces and demonstrated their patronage for trolleybuses by signing the "Declaration for Electric Trolleybus Mobility" during the festivities in Esslingen.

These jubilees and the continuous development of trolleybus systems as in Parma (see page 2) or in Eberswalde, where recently Europe's first trolleybus-hybrids were introduced, highlight that this proven and ready-to-use

technology responds to today's technical and environmental challenges.

In the coming months there is an important window of opportunity to further lobby for the trolleybus and to bring it into the centre of attention of future European transport policy as essential strategic papers are being drafted, like the Strategic Transport Technology Plan, which will be presented during our upcoming TROLLEY events in Leipzig (see page 6) and which hopefully will consider the trolleybus as future public transport option for Europe.

Furthermore, specific content and targets of European initiatives and funding programmes are debated at present and I am very happy that Ms Malgorzata Olszewska from Solaris Bus & Coach

S.A., an associated TROLLEY partner, and Mr Marek Stępa, Vice-President of the TROLLEY partner City of Gdynia, were invited by the European Commissioner for Energy Günther Oettinger to participate in a roundtable debate on the future European Innovation Partnership initiative for „Smart Cities and Communities" in Brussels. At this opportunity they advocated the trolleybus and promoted trolleybus systems as a backbone for the smart (electric) city of the future. And now find out more about these and other TROLLEY activities in this TROLLEY journal. Enjoy reading!

**I wish you all a recreative summer break and hope to see you in Leipzig!**

Yours faithfully  
Gunter Mackinger,  
Lead Partner TROLLEY

# The electric trolleybus: a sustainable choice for Parma



Mauro Piazza, Operational and Technical Director, TEP – Parma

In an ideal world there would be no need for dedicated lanes for buses and trolleybuses. In an ideal world people would move mainly by public transport and roads would be free from traffic. In reality, however, trolleybuses and buses are competing with cars, pedestrians, bicycles, taxis and motorcycles for the conquest of living space on city streets. In this daily battle, trolleybuses are sometimes seen as an obstacle to private mobility, rather than as a privileged instrument to fight traffic and pollution.

In these cases, the management of urban mobility by the local government authorities can be the key element to give the right space to local public transport on the city's crowded streets and to push people towards public transport.

The case-history of Parma in the last decade shows that only joint actions by public authorities and transport companies can create a virtuous cycle that produces positive effects, in particular:

- ▶ an improvement of electric public transport;
- ▶ increased satisfaction for users and a growing number of passengers;

- ▶ positive attitude of users towards public transport;
- ▶ less driving stress for drivers and fewer accidents.

At the beginning of the new millennium, the positive collaboration between TEP and the local city government has produced a positive trend, the effects of which are still lasting. This partnership produced convergent actions for supporting and promoting public electric mobility:

## **Restricted access to the city center for private cars**

It is not possible to allow an indiscriminate access to the city centre for private cars as it would affect the livability of the city, with increasing traffic and pollution. At the same time, people must be provided with alternatives, fast and convenient ways to

## **The choice of new vehicles for electric public transport:**

Parma has been using trolleybuses for nearly 60 years. This non-polluting and silent solution is welcome to the city. Recently Tep has chosen 9 new appealing tramlook vehicles produced by VanHool. The new 18 meter long vehicles will be used on line 5, the most used of the city with its 12,000 passengers per day, crossing Parma from East to West. The first of the new trolleybuses was inaugurated on May 4th 2012, during the 16th UITP Trolleybus Working Group meeting, in the presence of local and regional authorities. The new trolleybuses will be equipped with supercapacitors, which are co-funded as pilot investment by the TROLLEY project. This technology allows the recovery



The new "ebus" for Parma

access the city center by public transport. Since 2010, the access to the city centre of Parma during the day-time is forbidden to non-resident and non-authorized citizens. Three electronic gates check every car accessing the center.

of energy and reduction of fuel consumption. These vehicles will be more comfortable and spacious than traditional trolleybuses to support high traffic flows.

*continue page 3*



## Editorial Article from page 2

### COMMUNICATING THE NEWS:

the support of communication is crucial to propose this system as a necessary and desirable alternative to urban mobility. The new trolleybuses should be proposed as a new "cool" way of moving. It is also necessary to create positive expectations. The introduction of new trolleybuses in Parma was supported by a communication campaign created within the TROLLEY project. The graphic concept was adapted with the landscapes of Parma and trolleybuses were renamed as "ebus" in order to communicate, to reshape and to modernise the image of this vehicle, which is traditionally considered "old-fashioned".



Next year Parma is going to celebrate the 60th anniversary of its trolleybus network. Far from being outdated, the choice of trolleybuses made at the beginning of the 1950's proved to be farsighted, considering the modern problems of pollution and traffic that our cities are facing. But only an attentive policy for urban mobility and the convinced support of the local government, using the right mix of education, rules and incentives, can convince citizens to choose electric public transport instead of cars and to definitively choose a sustainable mobility for our cities.

## TROLLEY investments in Szeged finalised

The TROLLEY partner Szeged Transport Company (SZKT) invested in a Trolleybus Corridor that aims at a better, intermodal public transport system in Szeged. Key elements that are funded by the TROLLEY project are the high-speed wires, crossings and switches which ensure a reduced number of trolley derailments as well as reduced vibrations in the neighbouring houses. Furthermore, SZKT reconstructs a trolleybus stop with special kerb elements to provide accessibility to low-floor trolleybuses. For this, SZKT reconstructed the overhead wires at the Híd utca – Vár utca trolleybus junction as well as the Híd utca trolleybus stop as pilot actions in the TROLLEY project. Thereupon, SZKT produced a report, which can serve as a manual for im-



Reconstructed trolleybus junction Híd utca in Szeged

plementing overhead wire construction projects. The exemplary reconstruction of the trolleybus junction Híd utca demonstrates a concrete example of how trolleybus corridors can be realised and the experience and lessons learnt will be valuable for further developments within the trolleybus systems in Szeged. SZKT's future plans aim at a full circle trolleybus route in the city centre with connections to the railway station and the main bus terminal as well as intermodal interchanges along this ring route. The results of a feasibility study regarding this future plan for Szeged and the documentation for the pilot investment realisation will be part of TROLLEY's "Trolleybus Intermodal Compendium", which will be published at the end of the project.

## Joint TROLLEY & UITP Trolleybus Working Group meeting in Parma

Around 40 regular members and 20 TROLLEY partners attended the joint meeting to discuss TROLLEY's activities and outputs as well as the situation of trolleybus systems around the world in general. Addresses of welcome by Gunter Mackinger, Director of TROLLEY's Lead Partner Salzburg AG, and Sergey Korolkov, Technical Center Electrotransservice, Moscow, Chairman of the

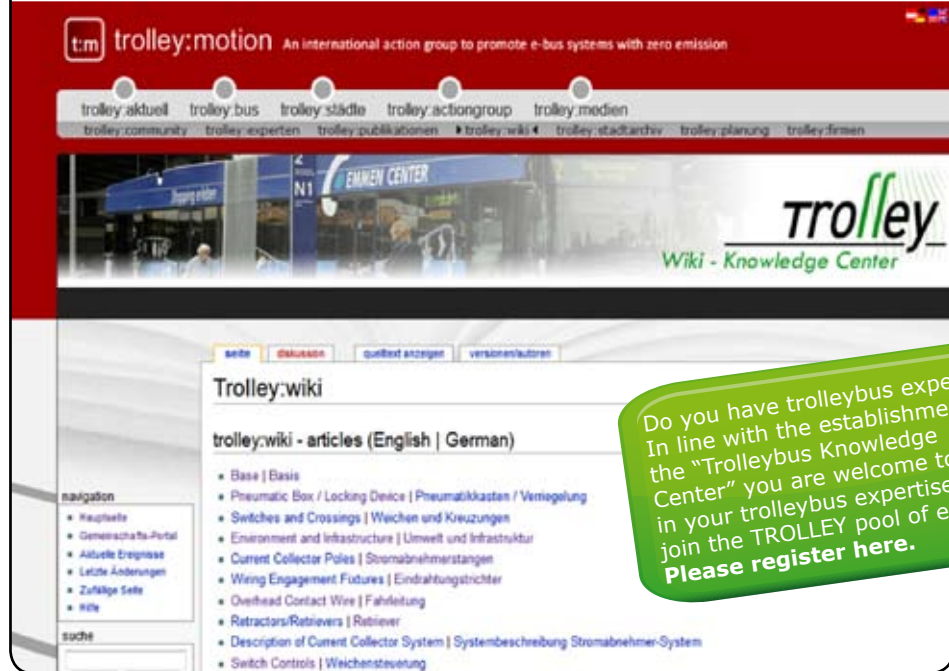
UITP Trolleybus Working Group, were followed by an introductory presentation about the TROLLEY project. Afterwards a TROLLEY Roadmap of project activities till the end of 2012 was presented and the UITP Trolleybus Working Group members were invited to make use of TROLLEY's outputs, e.g. planned manuals for energy storage systems or TROLLEY's image campaign "ebus – the smart way!", or to join TROLLEY initiatives like the European Trolleybus Day. The TROLLEY partners and the UITP Trolleybus Working Group members agreed to intensify cooperation and to extend a further knowledge exchange according to topical issues of the seven internal "project teams" of the UITP Trolleybus Working Group in various trolleybus areas at future meetings.



Knowledge Exchange during TROLLEY's & UITP's joint meeting in Parma

## Knowledge exchange and competence building with TROLLEY

TROLLEY is all about knowledge exchange, competence building and competence sharing. Therefore, TROLLEY has developed an eLearning module and a Trolleybus Knowledge Center. The eLearning module about trolleybus basics aims at trolleybus novices and can be reached via the



Do you have trolleybus expertise? In line with the establishment of the "Trolleybus Knowledge Center" you are welcome to bring in your trolleybus expertise and to join the TROLLEY pool of experts! Please register here.

TROLLEY Knowledge Center framework and Wiki start page (source: TrolleyMotion)

## 3rd European Trolleybus Day – join our initiative!

On 22 September 2012, the 3rd European Trolleybus Day (ETD) will be celebrated by the TROLLEY partners. With this initiative, the TROLLEY partnership would like to call attention to trolleybus transport as an important part of sustainable urban mobility in European cities. We hope that other trolleybus cities will follow our initial starting signal and join the ETD festivities across Europe in 2012. Besides the Polish trolleybus cities Lublin and Tychy, which already confirmed the organisation of an ETD this year, the German trolleybus city Solingen, which has been visited by a

TROLLEY delegation to celebrate the 60th anniversary of trolleybus transport in Solingen, gave positive signals to join the ETD initiative in 2012. Promote the trolleybus on this occasion and contact us for more information and further support! If you are interested in joining the ETD, an information fact sheet will help you to get started. You can download the fact sheet, which contains possible activities for the ETD, best practice examples, a check list for planning etc., via TROLLEY's website: [www.trolley-project.eu/index.php?id=112](http://www.trolley-project.eu/index.php?id=112).

TROLLEY website [www.trolley-project.eu](http://www.trolley-project.eu) (login information and further instructions). The eLearning module enables users to learn quickly and conveniently about trolleybus basics regardless of distance and time. The module is available in English. Further modules about energy storage systems for trolleybuses and the take-up of trolleybus systems are expected for the end of 2012 and all three modules will build up an full eLearning course.

Furthermore, TROLLEY established a European Trolleybus Knowledge Center. It shall serve as main European information hub on trolleybuses providing contacts to European trolleybus experts (pool of experts) and the most relevant links and documents (library) to all those, who wish to learn more about trolleybus systems. Additionally, the Knowledge Center contains a Trolleybus Wiki, which includes technical information about key elements of trolleybus systems and users or the experts respectively can add and edit their expert knowledge and information.

The TROLLEY Knowledge Center is integrated into the website of the TROLLEY partner trolley:motion – an international action group to promote e-bus systems with zero emissions - and is available via <http://www.trolleymotion.ch>.



Trollino MetroStyle from the TROLLEY partner city Salzburg visiting the German trolleybus city Solingen/Wuppertal



## United pro Trolleybus

All three German trolleybus operators - Eberswalde, Esslingen and Solingen - signed the TROLLEY Declaration for Electric Trolleybus Mobility in Esslingen. On Friday, 22 June, representatives of government and the transport industry gathered in Esslingen to discuss new developments and opportunities of the trolleybus system. Nestled in the celebrations for the 100th anniversary of electric transport in Esslingen, all three German trolleybus operators



From left to right: Dr. Jürgen Zieger (Mayor of City of Esslingen), Gunter Mackinger (Director, Salzburg AG), Frank Wruck (Director, Barnimer Busgesellschaft mbH), Mickaél Pandion (Director, Städtischer Verkehrsbetrieb Esslingen) & Conrad Troullier (Director, Stadtwerke Solingen GmbH - Verkehrsbetrieb)

joined forces and demonstrated their patronage for their trolleybus systems. Together they will continue to lobby for the trolleybus as a forward-looking and

environmentally-friendly means of public transport. Gunter Mackinger, director of the TROLLEY lead partner Salzburg AG, chaired the ceremonial act.

## First low-floor articulated trolleybus for Budapest

„A milestone for Budapest“, said Vitézy David, Chief Executive Officer of BKK, when he brought the first MAN/Gräf&Stift trolleybus into service in front of representatives of the press on 15 June 2012. The 15 articulated trolleybuses bought from the TROLLEY partner city Eberswalde, which had been in service there since 1993/94, were completely overhauled in Budapest in BKK's repair shop and on 12 June 2012 the first vehicle was approved for Hungary after 1,000 kms of failure-free operation. Costs for the low-floor trolley-

buses could be kept low, the purchase was made at € 38,000 per vehicle, plus transfer cost of € 8,700 and costs for overhaul and adaptation to Hungarian conditions amounting to € 54,000. Including duties, the total price per vehicle is € 103,000. These are the first low-floor articulated buses for Budapest, so far only solo vehicles were purchased in the low-floor variant. Furthermore, the new vehicles are more energy-efficient than the previous 99 articulated trolleybuses, which were procured from 1987 until 1996. A decrease in energy



MAN/G&S articulated trolleybus 350, previously Eberswalde, since 15 June 2012 operating in regular service on bus route 80 (source: TrolleyMotion)

consumption of 25% is expected. Now the trolleybus park comprises 100 articulated buses, 84 Ikarus 280T and 15 Ikarus 435T, in addition to 54 solo vehicles, 28 of which are low-floor.

## 74 new trolleybuses for the EM Tournament in Charkow, Ukraine

Three games of the European football championship took place in the city, which is situated ap-



An articulated converted trolleybus in Cluj-Napoca (source: TrolleyMotion) (source photo: www.city.kharkov.ua)

proximately 500 km East of Kiev. With just under 1.5 million inhabitants, it is the second largest city in the Ukraine. The stadium with a capacity of 41,307 seats is home of the football club Metalist Charkiw and is directly served by two metro lines. Tram and trolleybus lines run on neighbouring streets.

In the framework of the investments for the UEFA EURO 2012, the trolleybus company could achieve a substantial rejuvenation of the trolley fleet. In addition to the 30 new articulated trol-

leybuses, which were presented to the public on 21 April 2011, Lvivsky Avtomobilny Zavod (Lviv Automobile company) delivered 44 more trolleybuses until the beginning of the year, among them 22 more articulated trolleybuses of the LAZ-E301 type and 22 trolleybuses of 12 m length of the LAZ-E183 type.

25 lines are serviced with this fleet. Since the inner city is only frequented by tram and metro, the trolleybus lines are exclusively radial lines, which start from the periphery of the inner city.

### International TROLLEY Transferability Conference & 3rd International Trolleybus Conference in Leipzig

After Zürich and Luzern, Leipzig has now been selected as the next host city for the 3rd International Trolleybus Conference entitled „New horizons for urban traffic – innovative electric city transport systems“. In Leipzig, the re-introduction of trolley-

Registration  
You can register  
for the 3rd inter-  
national trolleybus  
conference here.



#### Contact and information: [www.trolley-project.eu](http://www.trolley-project.eu)

For further information subscribe to our mailing list and receive the TROLLEY newsletter or contact the Lead Partner:

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## Calendar

- ▶ **Smart Cities and Communities Communication Launch Conference,**  
Brussels, Belgium,  
**10.07.2012,**  
[http://ec.europa.eu/energy/technology/initiatives/20120710\\_smart\\_cities\\_conference\\_en.htm](http://ec.europa.eu/energy/technology/initiatives/20120710_smart_cities_conference_en.htm)
- ▶ **InnoTrans 2012: International Trade Fair for Transport Technology - Innovative Components, Vehicles, Systems -**  
Berlin, Germany,  
**18-21.09.2012,**  
<http://www.innotrans.de/en/>
- ▶ **Final event: European Bus System of the Future,**  
Brussels, Belgium,  
**15.10.2012,**  
<http://brussels-ebis.uitp-events-expo.org/>

buses has been considered for the past three years. With the recently launched hybrid buses, an important first step was made in the transition to sustainable electric solutions for road-based traffic. The conference will highlight the EU project "TROLLEY" and present its results. Simultaneously, the Leipzig fairgrounds will also host "euregia 2012" and the first ever "new mobility" expert symposium. These high-calibre gatherings will examine future mobility, innovative electric transportation solutions and the development of interconnected infrastructure for cities and entire regions.

In the run-up of the conference, TROLLEY will carry out the 2nd city-industry-summit bringing together representatives from the trolleybus industry (manufacturers, suppliers) and from European trolleybus cities. The 2nd TROLLEY city-industry-summit entitled "New Trolleybus Designs & Innovative Trolleybus Marketing" takes place on 22 October 2012 in Leipzig in the framework of the new mobility fair 2012.

The tentative agenda can be downloaded via TROLLEY's website.

Finally, the TROLLEY Summer University from 23 to 26 October 2012 will complete this week of trolleybus events in Leipzig. The TROLLEY Summer University addresses young employees and researchers of public transport authorities, the transport industry or research organisations. TROLLEY partners and participants will give lectures and presentations on trolleybus systems and other electro mobility solutions for public transport to exchange knowledge about

innovations, impacts and future potential of these solutions for cleaner transport in cities. Participation at the TROLLEY Summer University is possible only by invitation. Participation in the TROLLEY transferability conference is free of charge, but for logistic reasons you need to be either participant of the 3rd International Trolleybus Conference or visitor of the euregia 2012 fair to participate in the TROLLEY transferability conference.

**If you wish to attend only the TROLLEY Transferability Conference or the 2nd City-Industry-Summit you can find the registration form via TROLLEY's website.**

### TROLLEY at 10th International Salzburger Verkehrstage

TROLLEY will carry out a workshop "ebus – wishful thinking or economically realisable?" subsequent to the 10th International Salzburger Verkehrstage from 8 to 10 October 2012 in Salzburg, Austria. The main topic of the workshop will be energy storage systems for e buses ranging from stationary to mobile storage system technologies as well as smart grids and optimised energy concepts. Please find the agenda and the registration form for the 10th International Salzburger Verkehrstage "Cities in motion – urban centres as motor of sustainability" via <http://www.regionale-schienen.at>.

If you wish to attend only the **TROLLEY Workshop**, you can find the agenda and the registration form via TROLLEY's website.