



## Information on the ACTUATE Project Partners [EN]

### Rupprecht Consult GmbH

Rupprecht Consult (RC) is an independent, private research and consulting company from Cologne, Germany, specialising in transport issues. The company employs twelve internationally-experienced consultants who are working on sustainability in the fields of urban and transport development, environment, information technologies and innovations to society.

RC targets its services mainly at cities, regions and international organisations. Services include the development and management of international projects as well as evaluation and impact assessment, dissemination, capacity building, strategy development, and independent project monitoring.

RC is the coordinator of the ACTUATE project.

### Salzburg AG

Salzburg AG (SAG) is among the largest trolleybus companies in Europe. About 38 Mio. passengers are using the trolleybus in Salzburg every year. Only in 2007 an extension of one trolleybus line has replaced several diesel buses in Salzburg. Accordingly, SAG has many years of experience in trolleybus operation and its marketing as well as regards services, maintenance and infrastructure.

The company is internationally renowned the leading European trolley city and as test field for several manufacturers for new developments in trolleybuses. Targeted customer service initiatives for specific passengers groups as well as general marketing and PR activities concerning the promotion of the benefits of trolleybuses are among the main activities of the SAG.

The Salzburg AG is work package leader of WP3 “Training methodologies and materials” and the leading partner for the development of trainings and training material for safe eco-driving with trolleybuses.

### LVB – Leipziger Verkehrsbetriebe GmbH

Leipzig transport service (LVB) GmbH operates the public suburban traffic in the city of Leipzig and its environment with trams and buses. On 14 Tramlines and 60 Buslines, about 130 million passengers are carried annually. The buses run approximately 11 million km and the trams approximately 13 million kilometres in the regular transport service. The energy needed for trams amounts to about 60 million KW/H and the buses need about 5.3 million litres of Diesel

fuel. Modern technologies, such as back-feedable systems for trams and buses with hybrid drives make it possible to improve the economy and efficiency of the systems. The optimal use of the new techniques requires LVB to enable the drivers accordingly.

In the ACTUATE project, the LVB is work package leader of WP4 “Drivers training, assessment of savings and public transport quality improvement” and will evaluate the impact of the eco-driving trainings for hybrid buses and trams in Leipzig.

### **TEP S.p.A. – Trasporti Pubblici Parma**

TEP is the public transport company that serves the city and the province of Parma, in the north east of Italy. It was founded in 1948 it's now owned by the Municipality and the Province of Parma, 50% each. TEP offers 11 million km of urban and suburban services per year to 37,5 million passengers. The services are produced with nearly 400 buses and trolleybuses driven by 450 drivers. During the last 10 years the company has been promoting a deep renewal of its fleet, purchasing new ecological buses. Recently TEP decided to buy 9 new trolleybuses that are considered the cleanest and ecological way to transport people. The new trolleybuses, produced by the ACTUATE partner Van Hool, are equipped with supercapacitors that store energy as the trolleybus brakes and release it during acceleration. The company is aware of the fact that energy saving can be maximized with the correct eco-driving and that drivers' training is important to make new buses give best performances.

In the ACTUATE project, TEP will test and evaluate the trainings for safe eco-driving of trolleybuses developed by the ACTUATE partner Salzburg AG. Further training will be provided in collaboration with the manufacturer of the new trolleybuses, Van Hool, in order to make drivers aware of the peculiarities of these new vehicles and to give them the necessary knowledge to drive as efficiently as possible.

### **DPMB - Dopravní podnik města Brna a.s**

Brno's public transport company (DPMB) is the dominant public transport operator in the city of Brno (nearly 400,000 habitants) and also in the Integrated Public Transport System of the South Moravian Region. On 13 tramlines (the length of the network is 171 km), it operates 310 vehicles, which transport 190,000,000 passengers per year. Another important element is the system of trolleybuses. The length of the network, served by 11 lines, is 94 km, 146 vehicles transport 43,000,000 passengers per year. These low pollutant systems of PT – tram and trolleybus – are the backbone of the PT system in the city centre. The additional system of the conventional buses serves the fringe areas of the city. The length of the network is 549 km; more than 314 vehicles are operating on 49 lines, transporting nearly 115,000,000 passengers per year.

DPMB employs about 3,000 employees, most of them drivers. Part of DPMB is a schooling department, where new drivers are prepared for new driving licence exams. DPMB also trains all drivers during regularly and obligatory training.

In the ACTUATE project, DPMB will test and evaluate the trainings for safe eco-driving of trolleybuses and trams.

## **BBG – Barnimer Busgesellschaft/ Barnim Bus GmbH**

Eberswalde has the oldest trolleybus system in Germany (set up in 1901). Since 1940 it operates in its current way and celebrated its 70 years of existence in 2010. Since its founding, the Barnim Bus Company (BBG) is working on the technical development of environmental-friendly vehicles, taking into account the development of urban structure as well as improved customer services. Today, BBG runs Europe's first trolleybus-hybrid, a zero-emission vehicle equipped with a combined storage system of a lithium-ion battery and a supercapacitor. BBG employs 240 high-skilled staff and trainees at all levels (bus drivers, technicians and administration employees). Quality-conscious working processes are guaranteed to the customers, to the partners and among the employees. The use of braking energy is a firm standard since 1983 in Eberswalde, though the actual use of recovered energy is not fully developed for trolleybus systems yet.

BBG will bring in its current know-how and competences on energy recovery and will test both training concepts for safe eco-driving with trolleybuses and trolleybuses equipped with supercapacitors as learning partner.

## **LAB – Leipziger Aus- und Weiterbildungsbetriebe GmbH**

In the LVB-Group LAB is the service provider for knowledge and skills. LAB operates in the four business areas (1) vocational training, staff development, (2) recruitment and trainings, (3) operation of a driving school and (4) "mobility services" for the Leipzig Transport Company (LVB).

LAB has 180 employees. And organises about 300 trainings per year for the employees of the whole LVB-group from excel basics or welding permissions up to communication- and management-trainings. The driving school employs 8 driving instructors with work experience of more than 20 years in practical or theoretical trainings. The LAB driving school is the "centre of competence" in the "VDV-Academy", which trains drivers in most of the German public transport operators.

In the ACTUATE project, LAB is work package leader of WP2 "Criteria and standards for safe eco-driving of clean vehicles" and develops the trainings for hybrid buses and trams.

## **trolley:motion:**

TrolleyMotion is the leading European trolleybus interest group. It constitutes part of a wide trolleybus community and has well established contacts to relevant ebus actors such as trolleybus cities, industry and transport operators. Due to the wide network of public and private ebus stakeholders, and its self-sustaining and independent organisational framework (non-profit interest group) the involvement of TrolleyMotion offers a great potential for the successful knowledge transfer of the project results and outputs.

The industry members of TrolleyMotion (Carrosserie HESS AG, SOLARIS, Vossloh Kiepe and Cegelec) will participate in events and workshops and bring in their industry know-how about clean vehicles and discuss jointly with ACTUATE partners minimum criteria and training concepts for safe eco-driving of clean vehicles.

In the ACTUATE project, TrolleyMotion plays a leading role in terms of European and global dissemination, also beyond the actual lifetime of the ACTUATE project.

## Van Hool N.V.

VAN HOOL N.V. of Lier-Koningshooikt near Antwerp (BELGIUM) is one of the largest independent manufacturer of integral buses and coaches in Western Europe. Approximately 1.600 buses and coaches are produced a year and commercialised through the VAN HOOL network.

Since 2007 Van Hool provides a hydrogen electric vehicle operating in the city of Leuven. That vehicle was part of a project between Van Hool, the Flanders region, De Lijn, and many other partners. Van Hool tested this vehicle in normal daily use, with the objective to understand all of its potentials. The consumption results of that experience, showed that there was a big difference between the drivers and the consumption varied by +/-10% due to the driving behaviour.

In the ACTUATE project, Van Hool develops (together with the project partner TEP) an eco-driving training, starting from the principle functions, the tools and the awareness that the drivers can make the difference, for the new zero-emission vehicle in Parma, equipped with a supercapacitor.

**ACTUATE - Advanced Training and Education for Safe Eco-driving of Clean Vehicles**

