

Promoting **clean** public transport

Trolley

TROLLEY Introduction

Lead Partner Salzburg AG

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The European project TROLLEY

- delivers **transferable strategies** for implementation of trolleybus systems
- develops **innovative ways of promoting trolleybus systems** as environmentally friendly transport mode and thereby
- reshapes and **update the image of trolleybuses** in Central Europe!



The TROLLEY consortium

- The **TROLLEY** consortium is an **EU funded project** consisting of nine partners located in the EU:
 - Salzburg AG (Austria), Lead Partner
 - City of Brno (Czech Republic)
 - Barnim Bus GmbH, Eberswalde (Germany)
 - TEP S.p.A., Parma (Italy)
 - LVB, Leipzig (Germany)
 - City of Gdynia (Poland)
 - University of Gdansk (Poland)
 - SZKT, Szeged (Hungary)
 - TrolleyMotion, Salzburg (Austria)



TROLLEY Project: European Know-how & co-operation



- **Programme:** INTERREG IVB CENTRAL EUROPE Programme
- **Priority:** Priority 2, Improving accessibility to, and within Central Europe
- **Project Call:** 2nd call
- **Number of Partners:** 9
- **Lead Partner:** Salzburg AG, Austria
- **ERDF Grant:** ~ Euro 3.3 million
- **Total Eligible Costs:** ~ Euro 4.2 million
- **Start Date:** 01.02.2010
- **End Date:** 31.03.2013 (incl. Capitalisation)
- **Misc.:** Biggest 2nd call project in terms of budget



Objectives of the TROLLEY consortium

Objectives

Optimization the **use of energy**, to increase the **efficiency of public transport** in general.

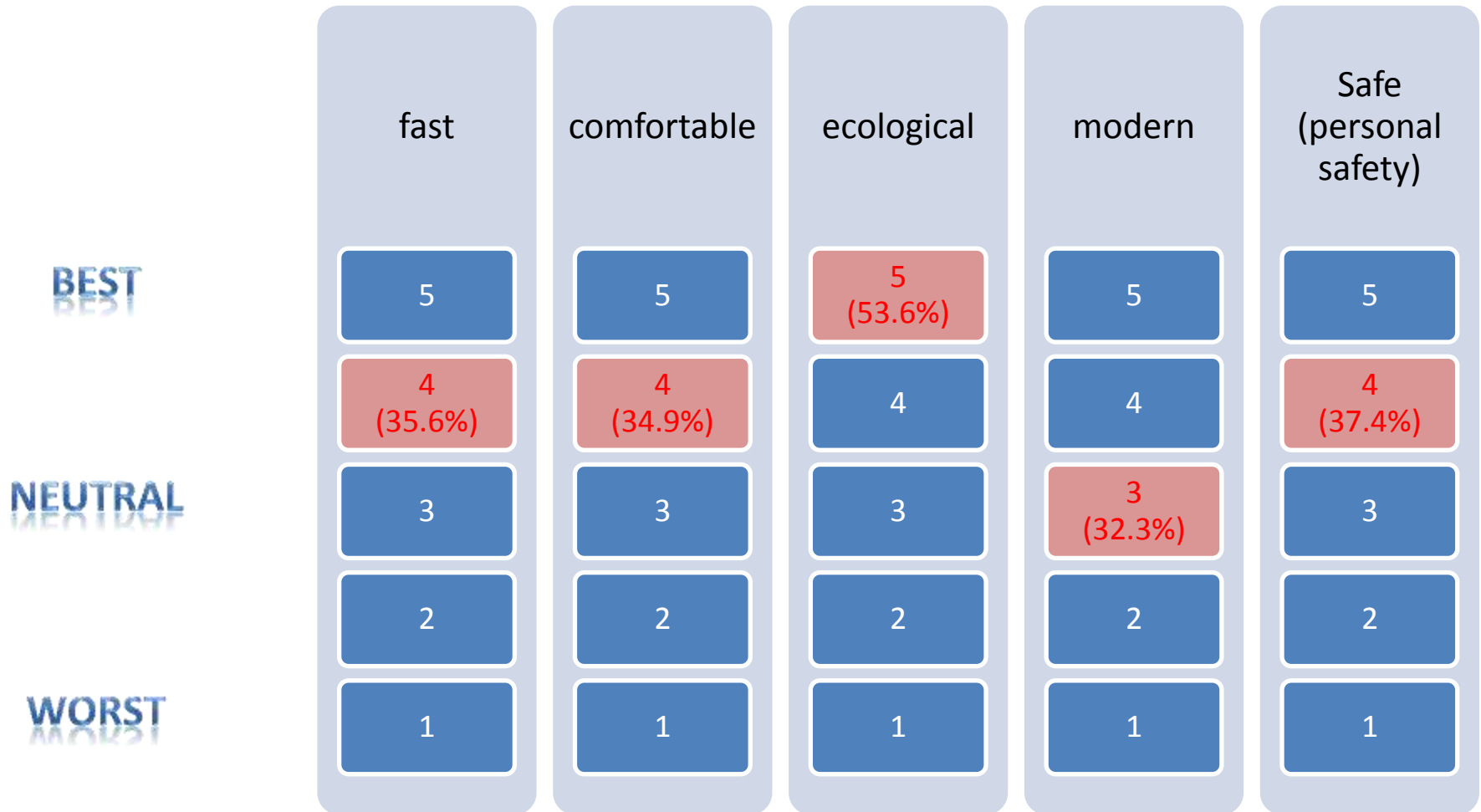
Improvement of patronage and the overall **awareness** of Trolleybuses.

Delivery of transferable **strategies** and **innovative ways** of promoting Trolleybus systems in Central Europe as **environmentally friendly mode** of transport.

Examples from the TROLLEY project:

- Study on Realisation of Trolleybus Corridor (Szeged, investment pilot action)
- Network Extension to the Agglomeration (Salzburg, external experts, feasibility study)
- Tests of off-board (network-based supercapacitors (Eberswalde, investment pilot action)
- Tests of on-board supercapacitors (Parma, investment pilot action)
- Study on Urban Network Extensions (Brno, external experts, feasibility study)

Customer's perception of Trolleybuses



Survey in TROLLEY partner cities 2011

New designs and energy storage technology



New trolleybus for Riad,
Viseon 2011

New trolleybus for Parma,
Van Hool 2012



Feasibility studies for network extension in Salzburg



Trolleybuses for agglomerations - the Hallwang-Esch example

Trolleybuses in Salzburg

In approximately 60 cities of the European Union, trolleybuses form an integral part of public transport. In Salzburg, the trolleybus network (that consists of 10 lines) and 3 tram lines provide the backbone of public transport. Salzburg's transportation service is complemented by several gas and diesel bus lines. Currently, the trolleybus network of the Salzburg AG has a length of approx. 100 kilometres (61.24 miles).

Network extension into surrounding area

The Salzburg AG/Salzburg Local Railways is a lead partner of the EU project „Trolley“. This project is concerned with questions of energy consumption optimization, efficiency enhancement in public transport and improvement of the trolley bus image.

To meet the focus on „efficiency enhancement“, the Salzburg AG and the Hallwang municipality authorized the investigation of a trolleybus network extension into the surrounding area. As since trolleybus line 4 was successfully extended to Hallwang Mayrweies in 2007, the question was raised whether further extensions of the network into the agglomeration would make sense.

Starting point of the investigation was a general comparison between the diesel bus and trolleybus systems. Based on these findings, concrete use cases were applied to shed light on the effects of network extensions, including extension of the trolleybus network within the municipality Hallwang from Mayrweies to Esch. Then the impact on the environment, passenger volumes and economic viability could be investigated. The results of a passenger and citizen survey conducted in Hallwang could be used to gain information on acceptance of the trolleybus service and its network extension.



Extension of the trolleybus system to Freilassing

Trolleybuses in Salzburg

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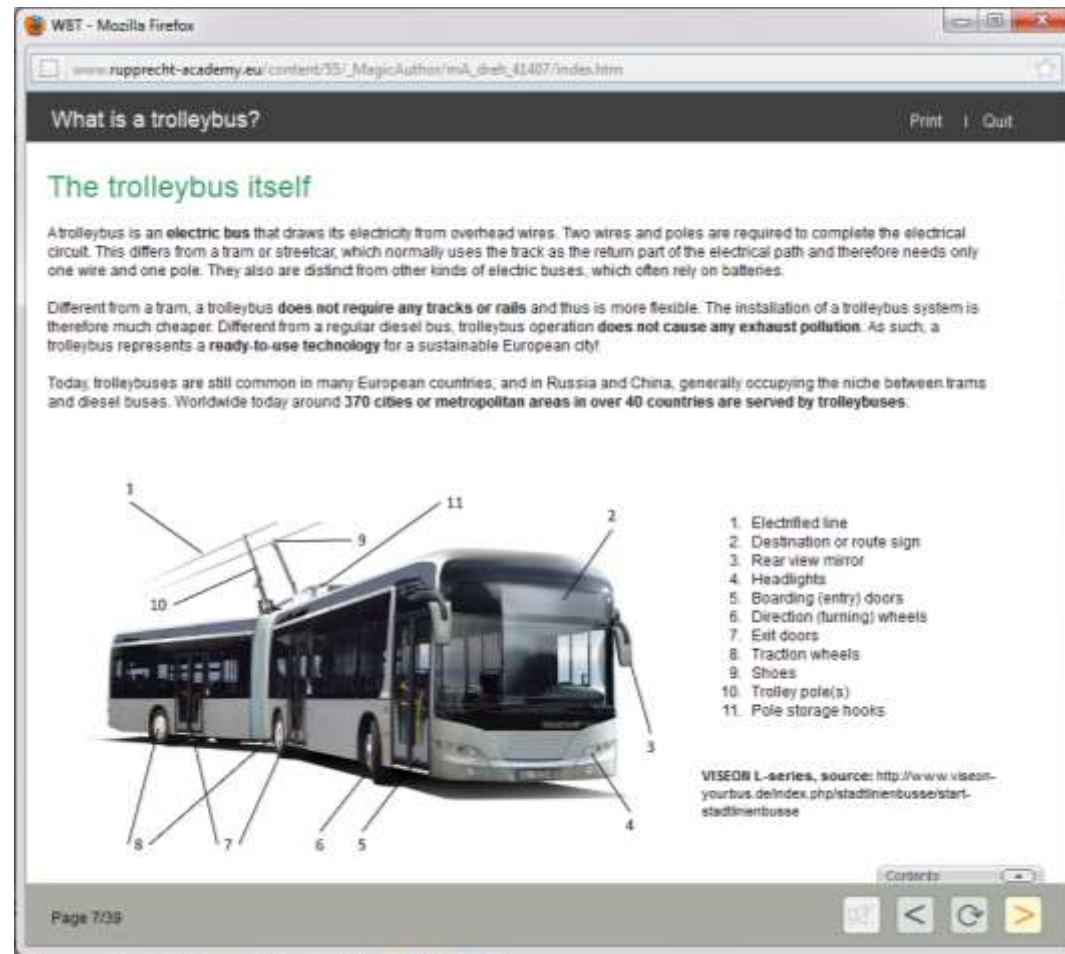
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To meet the focus on „efficiency enhancement“, the Salzburg AG authorized the investigation of a trolleybus network extension into the surrounding area. Since trolleybus line 4 was successfully extended to Hallwang Mayrweies in 2007, there has been an increasing demand for further extensions of the network into the surrounding area.

Starting point of the investigation was a general comparison between the diesel bus and trolleybus systems. Based on these findings, concrete use cases were applied to shed light on the effects of network extensions, including extension of the trolleybus network to Freilassing. Then the impact on the environment, passenger volumes and economic viability could be investigated. The results of a passenger survey on the trolleybus service in Hallwang Mayrweies could be used to gain information on acceptance of the trolleybus service.

The trolleybus eLearning module

- This free e-learning course is to enable quick and flexible learning
- Aims at trolleybus newcomers and all stakeholders interested in learning more about basic features & advantages of trolleybuses.
- Register via:
www.trolley-project.eu



The TROLLEY Declaration

Declaration for Electric Trolleybus Mobility

If you wish to demonstrate your commitment toward trolleybuses, sign the Declaration! Contact the TROLLEY project manager to get an adapted template.

All signee will be published on the TROLLEY website as supporters of the trolleybus idea (upon consent) and a final list of signee will be sent to the European Commission with an accompanying statement (at the beginning of 2013).

About 60 signee from city authorities, public transport operators, industry and research so far!



„ebus“: The movie

The Movie – 18 stakeholders across Central Europe speak with one voice!

Available via TROLLEY project website & YouTube



- **TROLLEY Research Roadmap**
- **Step 1:** identify and summarise problems, concerns, issues and research needs of/for trolleybus systems: *October 2012 – November 2012*
- **Step 2:** analyse results of step 1 and identify innovative approaches and technical solutions for future trolleybus systems: *December 2012 – January 2013*
- **Step 3:** compilation of the Future Research Agenda for trolleybus systems and position paper of TROLLEY (incl. technical, institutional, policy etc. recommendations): *January 2013 – February 2013*
- **Step 4:** presentation of the TROLLEY Research Roadmap to decision makers and policy maker in Brussels: *beginning of March 2013*

- **European Trolleybus Day (ETD) “starter kit”**
- Preparation of the ETD “starter kit” comprising aligned promotion material for and supporting documents like the fact sheet “How to organise an ETD”
- Production and shipment of “starter kits” to approx. 150 European trolleybus cities: *March 2013*



22-23 January 2013 in Szeged, Hungary

- Incl. presentations of core outputs and main results & TROLLEY Marketing Award 2012 ceremony
- Call for applications: „new designs for trolleybus infrastructure“ (masts & overhead constructions)
 - Category I: Professionals from Industry, planning authorities, architects etc.
 - Category II: private persons
 - Applications can include concepts from idea (sketches & drawings) to realisation (concepts and photos of „real“ implemented examples)

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