

# CIVITAS ELIPTIC Webinar: E-bus planning supported with simulation tools

7 April 2017, 10:00 - 11:30









## Welcome to the 2nd ELIPTIC webinar!

Time	Title	Presenter
10.00 – 10.15	Welcome and introduction to the ELIPTIC project	Yannick Bousse (UITP), Henning Günter (Rupprecht Consult)
10.15 – 10.40	E-Bus Simulation – Finding the Optimal Technical Configuration	Fabian Meishner (ISEA RWTH Aachen)
10.40 – 11.05	Conversion of a diesel bus line using hybrid trolleybuses – Example Eberswalde, Germany	Thoralf Knote (Fraunhofer IVI)
11.05 – 11.30	Electrified Buses: Design Considerations and Charging Strategy	Omar Hegazy (Vrije Universiteit Brussel, MOBI)





#### The Webinar Team

#### Moderators



Yannick Bousse, UITP
- Moderator of the webinar -



Henning Günter, Rupprecht
- Questions manager, technical issues -

#### **Panellists**



Fabian Meishner, RWTH Aachen



Prof. Dr. Omar Hegazy, Vrije Universiteit Brussel



Dr.-Ing Thoralf Knote, Fraunhofer IVI



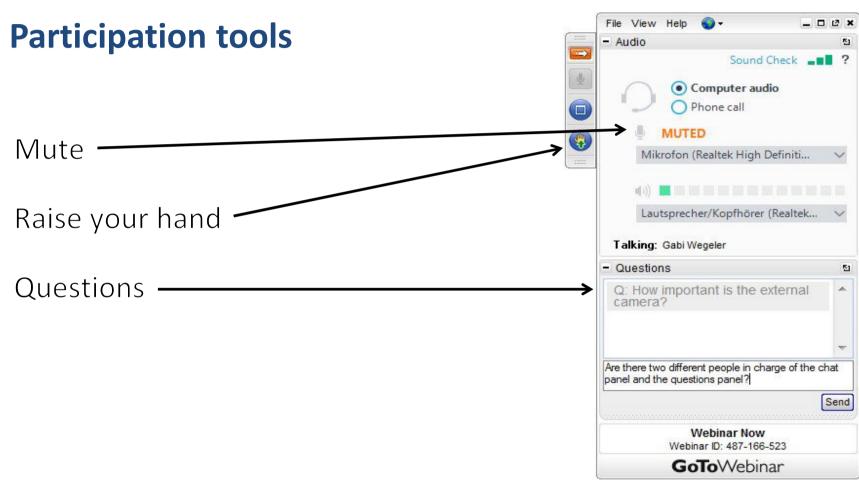


#### Phone or internet connection













# **Quick poll: User background**

What kind of organization

do you represent?







### **ELIPTIC** – electrification of public transport in cities

- Horizon 2020 Research and Innovation project
- 33 partner in 8 Countries
- 20 use cases (demo + feasibility studies)
- Duration, 36 months: 01.06.2015 –
   30.05.2018
- Coordinator: Freie Hansestadt Bremen
- Budget: 5,9 Million EUR





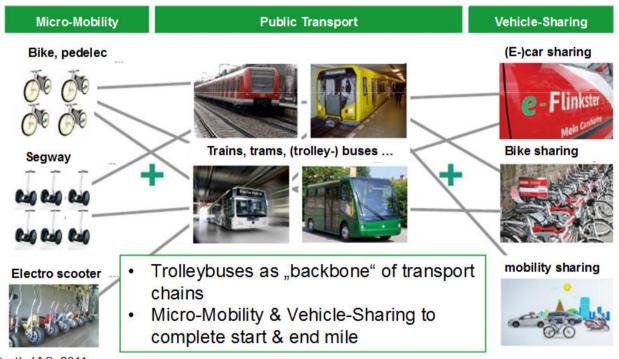






# Electrification of public transport

Reduce costs and energy consumption of electric public transport by optimising infrastructure and rolling stock



Source: Spath, IAO, 2011





## **Objectives**

- Evaluate the costs, benefits and operating efficiency of 20 use cases
- Support take-up of business cases and exploitation of project results across Europe
- Develop political support for the electrification of public transport
- Analyse 3 thematic pillars







# Three thematic technology pillars



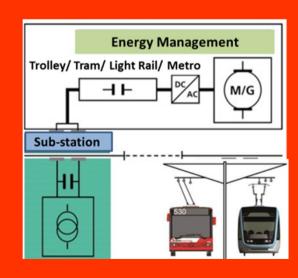
#### E-buses

Safe integration into existing electric PT infrastructure



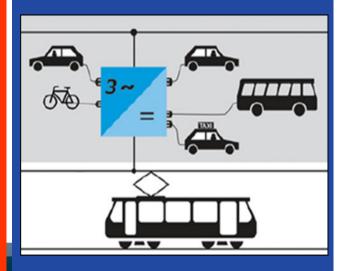


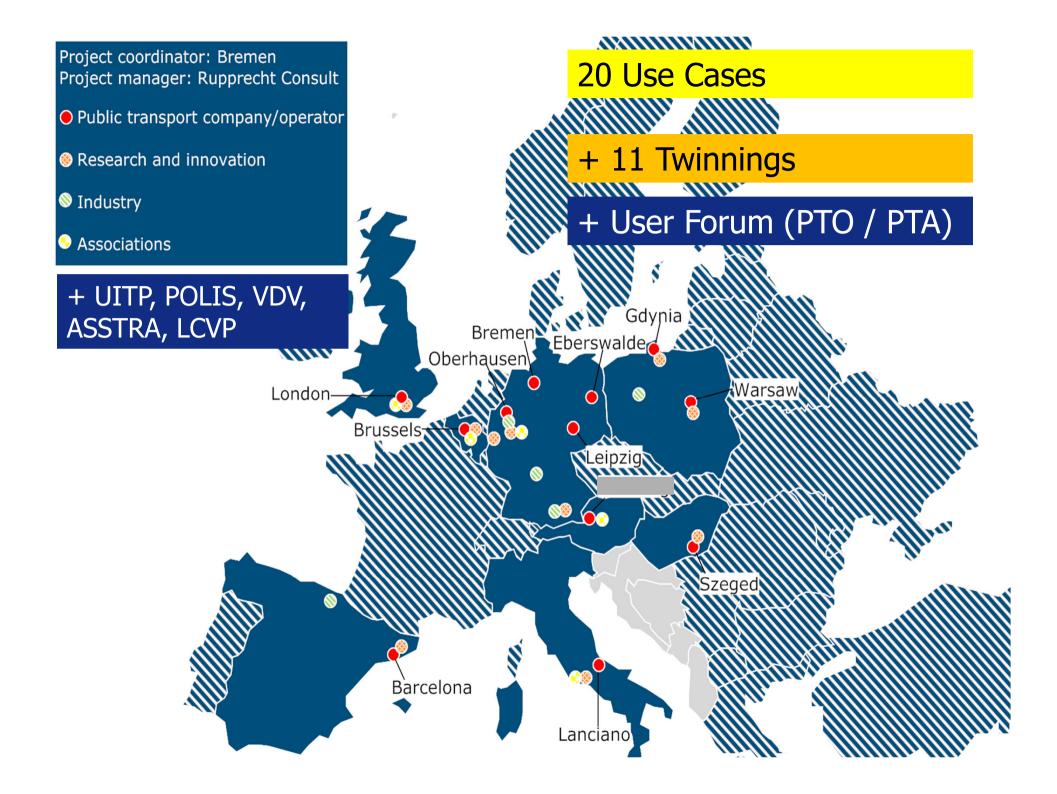
# **Energy efficient electric PT system**





# Multi-purpose use of electric PT infrastructure









### **Project outcomes**

- Increased knowledge and awareness of cost-effective approaches for electric public transport
- Evaluation of 20 Use Cases
- Pathway from use case to business case
- Guidelines and policy recommendations
- Twinning programme of cities / operators with same interest
- Thematic workshops
- Moderated webinars for training





# Opportunity (re)charging and overnight charging of electric buses based on metro infrastructure







# Opportunity (re)charging of e-buses by using substations and tram catenaries







#### SAVE THE DATE: ELIPTIC WORKSHOP

Innovative energy storage systems to increase operational efficiency of electric public transport

12 June 2017, 12:00 – 18:20

Location: ASSTRA, Sala "Aulo Vibenna", Piazza Cola di

Rienzo n. 80/a ROMA

First results from Brussels, Gdynia and Lanciano







## Thank you for your attention!

Website: <a href="http://www.eliptic-project.eu/">http://www.eliptic-project.eu/</a>

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transport in cities

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