



SAVING ENERGY AND COSTS BY OPTIMISING ELECTRIC PUBLIC TRANSPORT



THE MISSION OF ELIPTIC

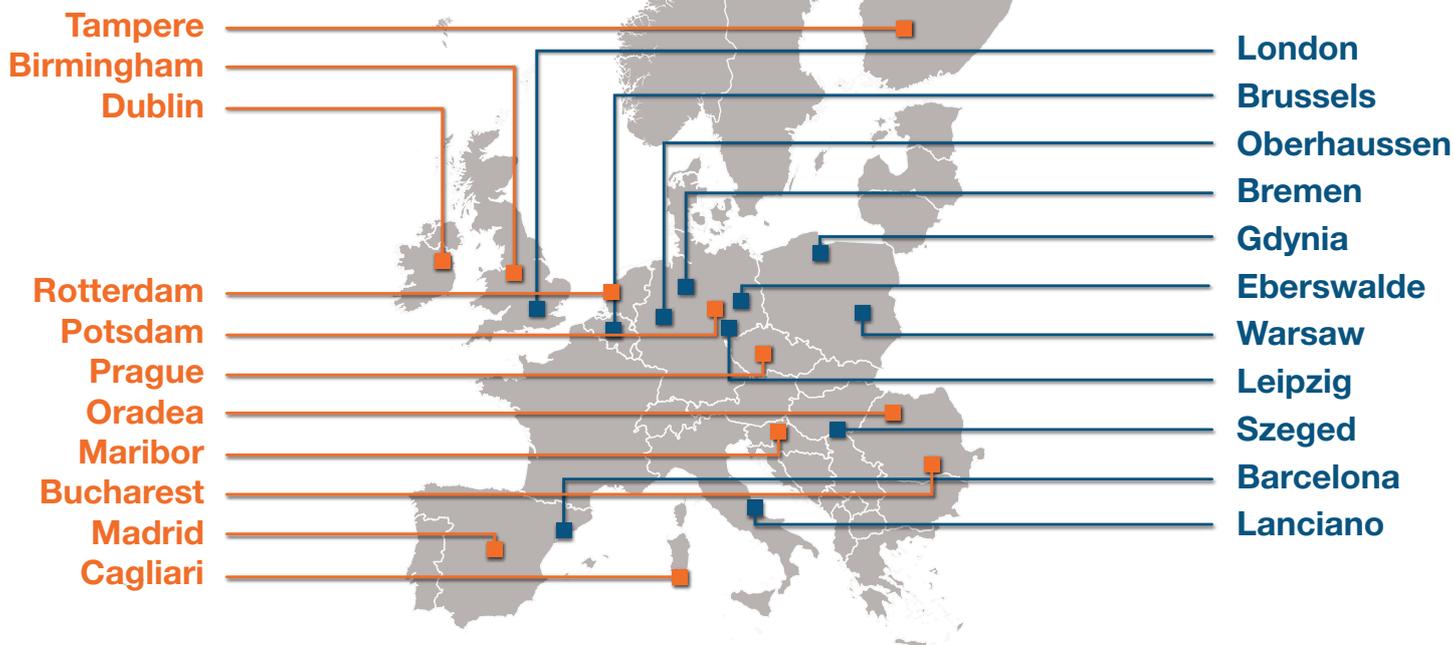
ELIPTIC will show how costs and energy can be saved by electrifying public transport and optimising the use of **existing infrastructure and rolling stock**.

In particular the often lacking city-wide coverage of **charging infrastructure** and the limited **driving range** of electric vehicles will be tackled by providing different options for **opportunity charging** along the existing infrastructure thus extending driving ranges and reducing the size of the required battery packs.

ELIPTIC will develop **new concepts, business cases and on-line tools** for all stakeholders in the electric public transport chain, including public transport operators and related authorities, industry suppliers, technology providers and EU citizens.

ELIPTIC will focus on the use of existing electric public transport systems, including **bus, trolleybus light rail, metro and tram**, for the electrification of multimodal mobility approaches in the urban, sub-urban and also less urban context.

ELIPTIC MAP OF PARTNER DEMONSTRATION CITIES AND THEIR TWINS



THREE THEMATIC PILLARS

will be studied and demonstrated within ELIPTIC:

Safe integration of e-buses into existing electric public transport infrastructure

Analyse the potential of existing electric public transport systems for safe and efficient integration of electric buses. Assess the potential of replacing diesel buses with more flexible trolley-hybrids. Identify optimal battery and mobile energy storage design as well as charging systems. Demonstrate key enabling technologies such as automatic wiring and de-wiring while driving, 18m e-bus and sub-station of the future.



Innovative energy storage systems to increase operational efficiency

Analyse smart energy management concepts for upgrading existing electric public transport infrastructure such as optimised energy management at sub-stations in combination with recuperating braking energy. Identify the potential of using ICT for smart and more efficient energy management.



Multi-purpose use of electric public transport infrastructure

Analyse the potential of existing electric public transport infrastructure to become a backbone for smart electromobility. Define the specific potential of using existing electric public transport infrastructure (trolleybus, metro and tram sub-stations) as charging infrastructure for other non e-bus electric vehicles such as electric bicycles, cars, taxis, vans and utility trucks.



ELIPTIC KEY OUTPUTS

- Increased knowledge and awareness of cost effective approaches for electric public transport;
- 21 concepts in the three thematic pillars with various technical approaches;
- Online training and planning tools;
- Evaluation of concepts;
- Pathway from concepts to business cases;
- Intense dissemination with operators, authorities, research and networks;
- Twinning programme and user forum for cities and operators with the same interest;
- Political recommendations;
- Long lasting impacts with continuous involvement of public transport operators and authorities.



ELIPTIC TEAM

The ELIPTIC consortium is composed of 33 partners from 8 EU member states and includes the experiences of 11 pioneering electric public transport operators and authorities. They are supported by leading universities, networks and industry sector representatives.

ELIPTIC IN BRIEF

The project started on 1 June 2015 and will last for three years with an overall budget of 5.98 million Euro. This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 636012.

OUR PARTNERS



MORE INFORMATION

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Electrification of public transport in cities

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