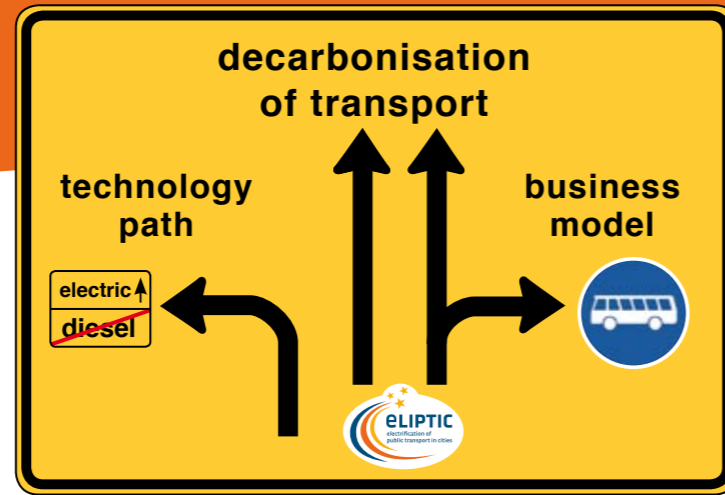


# EU Project ELIPTIC

“Factor 100” is a campaign of the European ELIPTIC project (Electrification of public transport in cities).

ELIPTIC is a Horizon 2020 project that is evaluating various technologies for electrifying public transport and integrating technologies (e.g. of tram sub-stations) into a wider approach to e-mobility. ELIPTIC has 20 use cases of practical



operation and involves research and industry suppliers as well as networks such as UITP, POLIS and other public transport-oriented organisations. To broaden the involvement and exchange, a User Forum of public transport operators and authorities has been set up as well as a twinning programme to match 11 further operators with ELIPTIC use cases.



## ELIPTIC project partners



ELIPTIC is coordinated by the City of Bremen.

Freie Hansestadt Bremen      Michael Glotz-Richter      Contrescarpe 72      eliptic@umwelt.bremen.de  
Der Senator für Umwelt, Bau und Verkehr      Hendrik Koch      28195 Bremen      www.eliptic-project.eu

This project has received funding from the European union's Horizon 2020 research and innovation programme under grant agreement No 636012

# Factor 100

Why it is so important to focus more on the electrification of public transport



# Factor 100: one e-bus equals 100 e-cars.

As public transport is the most space-efficient means of transportation, it is very effective tool in tackling congestion. Indeed, transport can only be efficient and sustainable when good public transport is in place. The widespread use of alternative and sustainable fuels in public transport vehicles could magnify its already significant space-efficiency advantage over individual cars.

In combination with walking, cycling and car sharing, public transport is a good alternative to owning a car. Electrifying or increasing electrification in public transport will lead to an even greater overall environmental benefit.

Car		18-metre bus
< 1 hour	daily operation time	12 – 16 hours
small (- medium)	engine size	large
50 – 60 % diesel	fuel	95 – 98 % diesel
Diesel: PM10 + NO2 petrol: low	related local pollution	diesel: PM10 + NO2
500 l fuel	annual fuel consumption	40,000 l diesel
	overall impacts	<b>savings equivalent to 100 e-cars</b>

### support for the purchase of an electric car ~ €5,000

Today, there is strong support of electric cars in many European countries. Along with incentives such as free or reserved parking, access to bus lanes and limited taxation, purchasers of an electric car can receive direct funding of up to:

- € 6,300 in France
- € 6,200 in the U.K.
- € 4,500 in Sweden
- € 4,000 in Germany

**Equivalent support for a bus would mean ~ € 500.000 per bus.**

### support for the procurement of an electric bus €??

By comparison, the financial support for electric buses in Europe is weak. This low level of support for electric buses does not reflect their significantly higher positive impacts. If financial support for the purchase of electric buses reflected their factor 100 impact, each 18-metre electric bus would be subsidised by €500,000 and each 12-metre e-bus by €400,000. With this, we could quickly achieve a substantial reduction in local and global emissions and improve overall traffic conditions.



The campaign against high-polluting diesel buses in New York is already two decades old (and the air pollution has been reduced to a degree). A departure from diesel technology towards electric buses will be the next big step towards cleaner air and less noise pollution in cities.

