



Ele.C.Tra - IEE/12/041/SI2.644730  
01 July 2013 – 31 December 2015

## TAXI FLEET RENEWAL IN LISBON

### Good Practice

### *City of Skopje*

Regarding e-mobility, we would like to share a good practice from one of our partners in the project Ele.C.Tra, EXACTO from Portugal.

The high average age of taxis (14.1 years in 2013) in Lisbon, results in the contribution of these vehicles to air pollution in the city, not only for the ancient technology of conventional motors but also for the high number of kilometres that this type of transport usually accomplishes per day.

After good results of a pilot experience with two electric taxis, the municipality of Lisbon, during 2014, will give financial incentives to promote fleet renewal, towards electric mobility. The total amount of 60.000 euros will be distributed among ANTRAL and FPT (the two taxi associations operating in Lisbon) in order to support the acquisition of 20 new electric taxis, which will replace old internal combustion engine vehicles, having European standard equal or inferior to Euro 3. Antral and FPT will designate 20 taxi owners that will benefit from the subsidy and will commit to maintaining the electric vehicles service for a minimum of five years.





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## Benefits and advantages

The electric taxis contribute to reducing GHG emissions and noise pollution and their operation and maintenance costs are lower than those of conventional taxis.

Furthermore, circulating on a daily basis in Lisbon, the vehicles will have a favourable effect on mainstreaming of electric mobility. An information gathering system will be installed in the new taxis, that will allow to assess the environmental and economic impacts of the initiative, providing data about kilometres covered, fuel savings and reduction of GHG emissions.

Contribute to avoid penalties due to the city failing to meet pollutant emissions established by European Commission.

## Limits and Drawbacks

Most taxis work 20 to 24 hours per day, with 2 drivers (one for the day shift and another for the night shift). Charging operations (duration 6 to 8 hours) will reduce the effective working hours of the vehicles, with negative impacts on daily income, therefore counterbalancing the fuel and maintenance savings. This situation may reduce the motivation of taxi owners to adopt electric vehicles..

Fast charging operations can be used (30 min), but this option is envisaged for occasional situations and it is not to be implemented on a regular daily basis, due to potential damage to the batteries.

Some trips (e.g. driving from Lisbon to suburban areas) can be behind the autonomy range of the vehicle, in particular after a few working hours; therefore these longer rides (usually rather profitable) cannot be accepted by the drivers, resulting also in loss of income.





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### **Quantitative Results (any statistical data)**

The pilot experiences provided very good results, with real economic benefits, according to the opinion of taxi owners, in particular: lower maintenance costs (e.g. maintenance of electric engines is easier than of conventional engines); lower costs of electric charging compared to fuel costs (around 20-25% less).

### **Highlights of the solutions**

The aim of the measure is to reduce noise and air pollution in the city of Lisbon, in order to improve life quality.

### **Implications and challenges**

Direct or indirect effects on the mainstreaming of Electric Scooters Sharing

The regular use of electric mobility in public transport modes, such as taxis, will contribute to raise awareness and to mainstream electric vehicles.

### **Sources of information**

Website: [www.cm-lisboa.pt](http://www.cm-lisboa.pt) (Municipality of Lisbon website > News, accessed on 13/02/2014)

Website: [www.prio.e.com/en/](http://www.prio.e.com/en/) (Prio.e website, accessed on 13/02/2014)

Website: [www.mobie.pt/en/](http://www.mobie.pt/en/) (Mobi Europe project website, accessed on 13/02/2014)

