

The National Portuguese MOBI.E program and its local implementation in the City of Lisbon

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The MOBI-E program



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MOBI.E
MOBILIDADE ELÉCTRICA

National charging grid

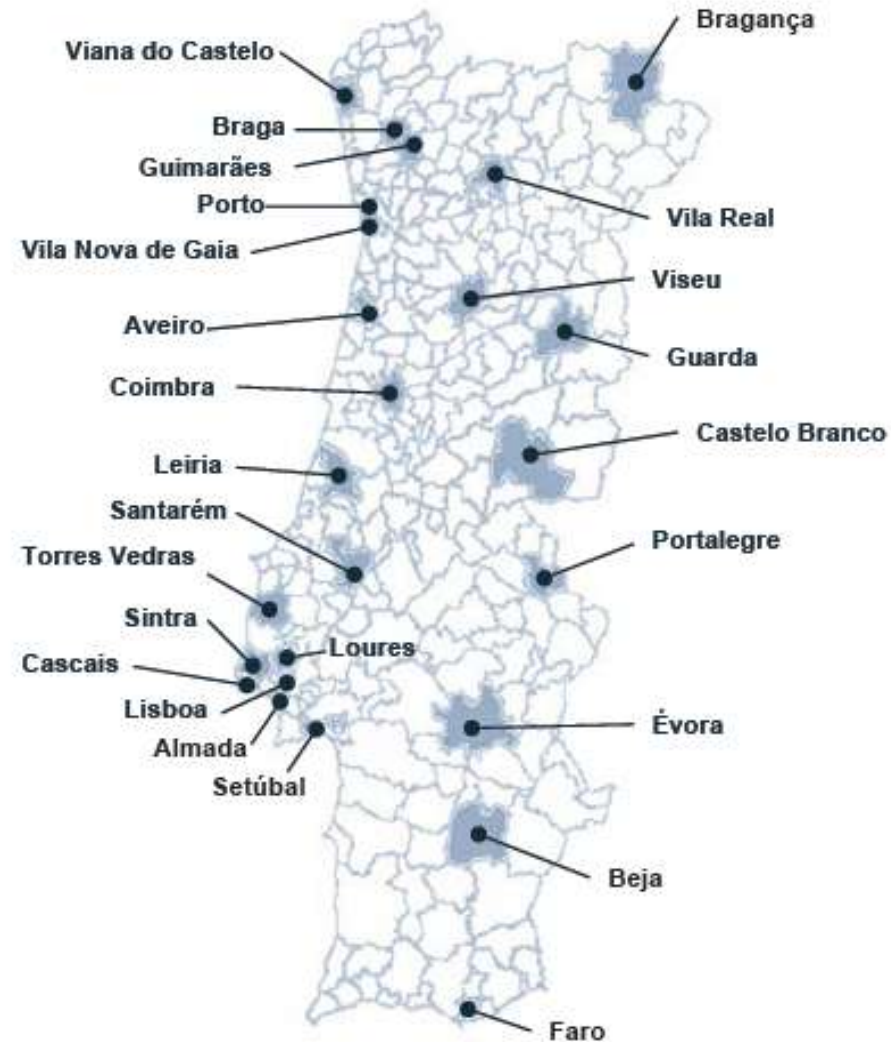
1.300 slow charging stations

50 fast charging points

25 pilot cities



25 Cities





MOBI.E
MOBILIDADE ELÉCTRICA

The Managing Model



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Charging operators

Managing company **Mobi-E**

Managing System

CME A

CME B

CME C

CME X

Retailer A

Retailer B

Retailer C

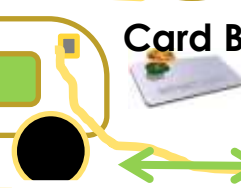
Card A

Batteries



Batteries

Card B



Batteries

Card C



Telecommunication Grid

EV Electricity companies

National Grid

Electric Producers



*Source: EDP Inovação

Connecting cities
Building successes



The business Model

- Cost of energy
 - Cost of the service (operators)
 - Cost of parking (if applicable)
 - Fee to the managing authority
-
- Values have been established for the pilot period (end of 2012) for slow and fast charging:
 - Cost of the service
 - - 0,07 €/kWh (day)
 - - 0,03 €/kWh (night)
 - - 0,20 €/kWh (fast charging)



Electric Vehicles and the city of Lisbon





The City of Lisbon: Key facts

Population : ½ Million inhabitants
2 million in metropolitan area

Income per capita : 21.300€

Functional geography- main features :

- 84,7 km² of urban area
- Population density is 5.780 inhabitants/km²
- **200.000 vehicles permanent residents**
- **400.000 vehicles entering daily in the city**
- **Ca. 380.000 parking spots**



Electric Mobility in Lisbon: 4 step approach

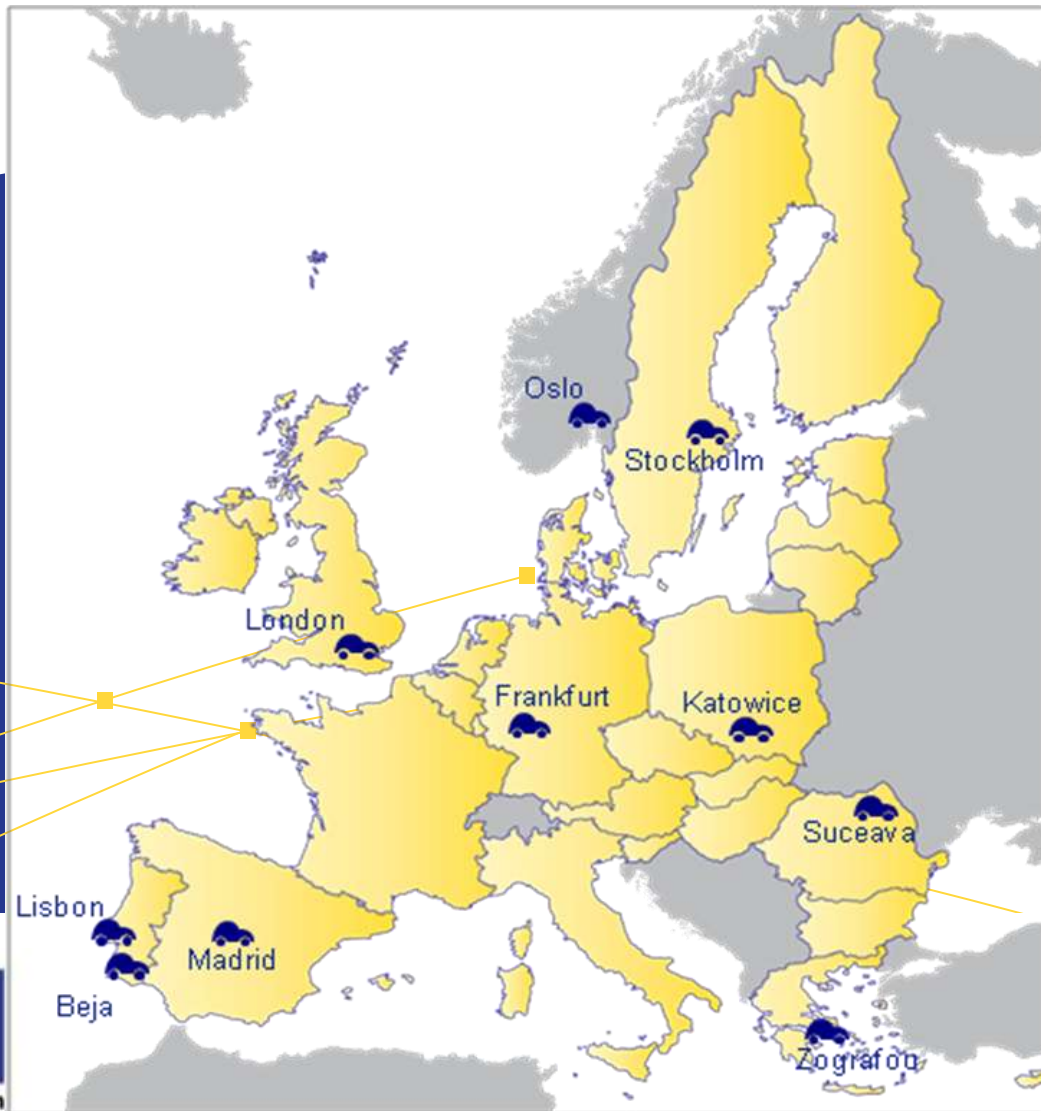


1. Learn more about the subject:
 - Partners in European projects
 - Members of the MOBI-E Project
2. EV charging points localization and implementation plan
3. Promote the introduction of Evs:
 - Car fleet renewal with EVs
 - Support local adopters
4. Monitoring project for feedback on real applicability of EVs



EVUE - Electric Vehicles in Urban Europe

Defining local EV mobility strategies



Connecting cities
Building successes





MOBI.E
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Lisbon charging points network Project MOBI-E - 687 points in 2011!



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- 350 on street
- 320 off street



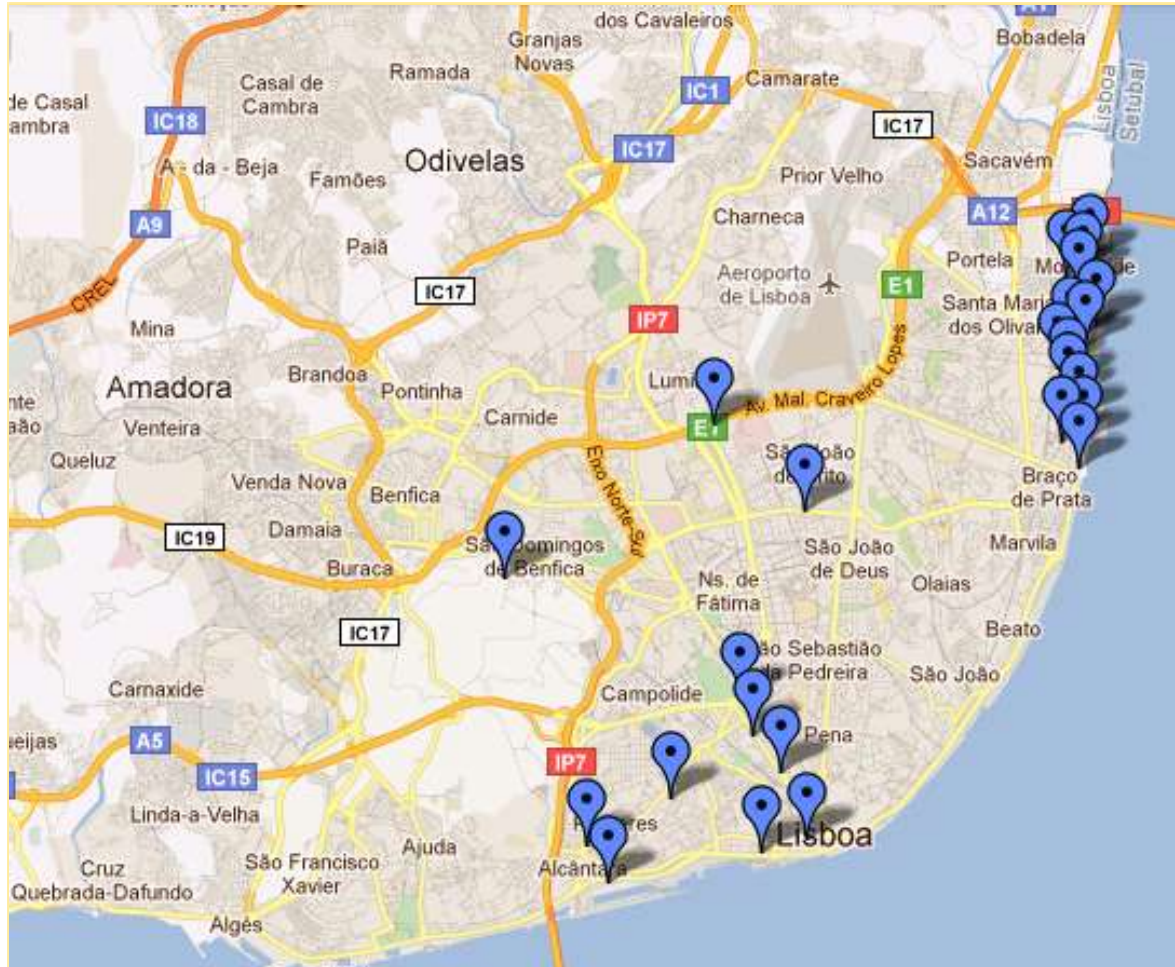
The core group for planning and installing the charging points

- EDP
- EFACEC
- City of Lisbon
- EMEL
- ENOVA
- consulting also:
 - ☞ Gas company,
 - ☞ water company,...



- Meets every Tuesday, 15 hours @ EDP

Installed and working (56)



Installed under licensing (210)



Approved to be installed (164)



Under discussion by the core group (248)



Current situation: 16-Set-2011

Situation	N. Location	Charging points	Total charging points	Date of completion
Working	25	56	56	July. 2011
Installed	67	210	266	Oct. 2011
Aproved	50	164	430	Nov.2011
Under discussion	55	248	678	Dec. 2011
TOTAL	197	678	678	



- Are we willing to use EVs?
- Are there EVs at a competitive price? Where?
- Who are the clients?
- What communication strategies?

The Lisbon Municipal Fleet (~30 vehicles)



Municipal Police



Cleaning vehicles

Local EV Evaluation Project

To analyze the daily use of EV



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TÉCNICO



Starting : October, 1st

looking for data related to the use of EV's on daily activities



- **Getting information about driving activities in the city**
- **Monitoring EV's skills and behavior on regular use at the city**
- **Comparing both technologies (EV and regular Cars)**
- **Looking for environmental gain and advantages on using EV's**
 - **Launching the GREEN PERMIT!**

Obrigado pela vossa atenção!

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