

Electromobility in Romania – best practices

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E-mobility (electromobility) means "clean and environmentally friendly electric vehicle transportation".

Electromobility is often proposed to be the solution for the problem of combining individual transportation with an ecologically sustainable development.

EVUE project in Suceava

EVUE stands for Electric Vehicles in Urban Europe. It is an URBACT Thematic Network of ten cities, led by Westminster City Council in London. **The overall aim** of EVUE is to explore, exchange and implement ideas on how cities can develop integrated and sustainable strategies to increase the use of electric vehicles.

Suceava Municipality was a partner of the above mentioned project. Main project results for Suceava were:

- 1. Suceava's URBACT Local Support Group created the opportunity to initiate open discussion about electric vehicles.
- 2. Local Action Plan is an Electric Vehicles Promotion Strategy, having as main goals: promotion of EV, market development, plan integrated development of electric vehicles, find mechanisms for overcoming the financial barriers







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Benefits:

- Raising awareness of the benefits of an electric vehicle strategy;
- Increase awareness of the environmental and economic benefits of electric vehicles;
- Demonstrate environmental benefits of electric vehicles and put in place economic incentives such as free parking;
- Briefing, recording of experience and knowledge, consultation, communication and exchange of good practices with other partners;
- Evaluation of data, sensitization and briefing of citizens.

Advantages:

 Share experiences with EU member states and increase the visibility electric car strategies.

Limits and Drawbacks:

- Consumer acceptance;
- High battery costs;
- Green electricity supply;
- Limited driving range;
- The need for dense charging infrastructure;
- The uncertainty of technological developments.



Barriers for application in Suceava:

- High cost of the vehicles compared to conventional cars;
- Actual lack of charging points;
- Small driving range;
- Long charging times;
- People are unfamiliar with electric vehicles, are uncertain about their costs and benefits, and have diverse needs that current electric vehicles might not meet.

Challenges:

- The level of investment needed for setting up charging facilities could be prohibitive and result in a slow response;
- The introduction of electric vehicles needs to be done at national scale to replace older cars;
- The price of electric vehicles and the need to buy new cars are serious impediments;
- Insufficient parking infrastructure available, resulting in congestion on road and pavements as they are used for parking.

Sources of information Website: <u>http://urbact.eu/</u> <u>www.primariasv.ro</u> Ele.C.Tra - IEE/12/041/SI2.644730 01 Juy 2013 - 31 December 2015





electric vehicles In urban europe











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ELECTROCAMPUS project, University of Politehnica Bucharest

Research Project – Green means of transport with light electric vehicles, appropriate for a sustainable development of POLITEHNICA of Bucharest University campus



The project proposed a system of individual transport using clean alternative energy. It is appropriate to a small community, disposed over a large area.

The project had three components:

- 1. the development and use of light electric vehicles;
- 2. realizing an **infrastructure based on parking station systems**: solar panels charging batteries, vehicle monitoring and wireless communications;
- 3. **creating a management and administration system** for the vehicles regarding the access rights, vehicle availability, use and consumption monitoring, payment service.

The main result regarding scooters was the development of a traction electric engine for scooter. The novelty of this research project was to implement wheel engine, not conventional engine. The new developed scooter has a range of about 30 miles, and the battery can be completely charged in 6-8 hours.

ELECTROCAMPUS project, which had ICPE as partner stands as a model of good practice in Romania.

Limits and Drawbacks:

1. Limited Range and Speed

Electric powered scooters are limited to a range of 15-40 miles per charge (depending on the model and battery type) so we can't drive extremely long distances.

2. Less Security and Protection

Naturally, there is less protection from harsh weather and adverse road conditions when riding a scooter (of any type). And depending on location and seasonal weather patterns, the electric-powered scooter might be completely side-lined for several months during the winter.

Sources of information: http://www.aver.ro/scuter_en.html





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Electric scooters for Craiova local police

Craiova Municipality has approved the acquisition of 4 electric scooters to be purchased for the local police in order to undertake current activities regarding police patrol.

Benefits and advantages:

- Low-priced driving and repair cost;
- Decrease in travel costs;
- Smaller amount of problems than gasoline engines;
- Very durable and trustworthy batteries and will tolerate a great number of recharges.
- Easy maneuver in crowded areas where other vehicles cannot go and park in limited spaces where cars or trucks are not allowed;
- No noise in operation;
- Environmentally friendly;
- Easy, cheap and affordable to maintain.

Limits and Drawbacks:

- Electric scooters are limited to a range of 15-40 miles per charge (depending on the model and battery type) so we can't drive extremely long distances.
- Partially side-lined for several months during the winter.

Barriers to Application:

 Although the advantages and benefits offered for the environment protection are major, the electric scooters have not yet succeeded in penetrating the market and convincing the potential users.

Sources of information: http://politialocalacraiova.ro/











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