Mi Muovo Elettrico: the Regional Plan for Electric Mobility in Emilia-Romagna

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Emilia-Romagna Region profile
Total population over **4,3 millions**
Surface **22.124 Km²**
9 Provinces
**348** Municipalities
40% of total population lives in **13 main cities**
EMILIA-ROMAGNA REGION: SNAPSHOT

POPULATION: 4,432,439
LAND: 22,445 km²
CAPITAL CITY: BOLOGNA
PROVINCES: 9
MUNICIPALITIES: 348
GDP PER HABITANT: €30,493
ENTREPRISES: 383,549
UNIVERSITIES: 5
REGISTRED VEHICLES: 2,699,973
INDUSTRIAL CENTRES: 10
LPT Passengers/year: 300 MLN = 260
DAILY TRIPS: 8,927,000
MODAL SHIFT:
- Passenger vehicle: 67,2%
- Walk or Bicycle: 21,3%
- LPT: 7,3%
- Motorbike: 4,2%
AVERAGE DAILY TRAVEL [km]: 44 km
AVERAGE DAILY TRAVEL [MINUTES]: 66’
The regional Mobility and Transport Councillorship is competent for:

- Planning of the infrastructural network and of the road, railway, port, water, air, inter-port, and bus communication systems
- Planning of regional and local mobility systems
- Freight and people mobility services
- Improvement of the urban mobility
- Regional Observatory for Road Safety and Education
Developing other transport system: taxi-bus, carpooling, car sharing, bike sharing and similar;

- Promoting use of public transport

- Adoption of urban mobility local plans and coordination with the planning instruments (PUT / PUM> PSC / POC)

- **Mi Muovo**: the new regional fare system, allows to use a "single card" for different transport modes
THE OVERALL REGIONAL STRATEGY

**Investments** for modal integration development, service quantity increase and quality improvement

**The GIM Project**
Creation of a public information system (bus route control, information at bus stops, etc...)

**Infomobility**

**Project for the railway regional service** ICT on board systems on trains and in the railway stations

**Integration of the services**

**Travel Planner/Google Transit**

The LPT integrated timetable

**Fare integration**

**www.mobiliter.eu**
Mi Muovo project
“MI MUOVO”: THE MAIN FEATURES

- Regional scale
- Change over from a kilometer fare to a zone system
- Undifferentiated transport mean use
- Contact-less card valid as encompassing mobility card (i.e. more subscriptions on one card, up to five different subscriptions)
- One regional railway train-bus fare based on zone system
facilitate users accessibility and promotion of the Public Transport;

guarantee flexibility and efficiency of the Public Transport for the users also thanks to a ticket price more coherent with the service actually used;

increase Public Transport appeal for users;

promote the Public Transport demand.

The Emilia-Romagna integrated fare and ticketing system provides also the opportunity to:

Gather the traffic data required for the planning of the public transport services (e.g. the users movements tracking through the contactless system);

effective control of the quality of the service: through the integration with the GIM system, a real time monitoring of the different modes of transport and parameters (e.g. commercial speed, the number of passengers, etc.) is guaranteed.
"Mi Muovo": WHERE IS ACTIVETED?
“Mi Muovo” already allows to recharge season tickets chip cards through:

- bank ATMs and home banking
- soon this service will be offered also by supermarket chains and internet and mobile phone companies.
More than 200,000 “Mi Muovo” card issued

Technological devices
- 10 centralized ticketing management systems
- 5,000 contactless ticket validator;
- 250 railway stations to be equipped;
- 530 charging devices for tobacconists and newsstands;
- 56 company ticket offices

Total investment: more than 34 millions of euro

17 millions of euro of regional contributions (50%)
E-R INVESTMENTS TO PROMOTE PT

2002

17 Million € (34 Million € of estimated total cost)
0,4 Million € (for clearing system and start up)

2011

1,8 Million € (yearly contribution to operating costs)

2011 - 2014

> 4,0 Million € (8 Million € of costs + Google partnership for Infomobility projects)

2011 - 2012

2 Million €

2011 - 2012

0,65 Million € (2 Million € private investments)
Mi Muovo ELETTRICO project
**Electric vehicle features**

- Zero noise pollution
- Zero pollution and greenhouse gas emissions if powered by renewable sources
- Reduce the cost of mobility due to the greater efficiency of electric motors
- Reduce the dependence on fossil fuels and can act as an indirect incentive for renewables;
- They can be an integral part of the "smart grid" (smart grid)
- Enable the design of a suburban mobility.

**Charging infrastructure for electric vehicles**

The columns are the key point of the recharging infrastructure for electric vehicles. The most important feature is their interoperability, namely the possibility for a user to use all charging point (ENEL, HERA or other).

The columns are home now for two types of sockets, the SCAME and MENNEKES, pending European legislation that standardize. The posts are technologically very advanced and may serve as access to the smart grid (smart grid).
Emilia-Romagna’s challenge to promote electromobility “Mi Muovo elettrico” is Emilia-Romagna’s regional electromobility program. This project is based on the two principles of the *interoperability* at regional scale and of the **integration** of all the available mobility services.

The Emilia-Romagna Regional Government has signed agreements with all the electricity **providers** operating in the region (ENEL, HERA and IREN), and with the main municipal administrations, setting up an **innovative charging points network**, integrated in the “Mi Muovo” chip card.

**According to these agreements**, and following the provider business principle, e-providers are bound to realize the infrastructure, while Emilia-Romagna’s task is to extend the charging points and the “Mi Muovo” shared hardware and software standards also to big private retailers (such as shopping centers).

**Certified energy from renewable sources**
To strengthen its commitment to environmental sustainability, the agreements entered into by the State with the various public and private partners, is always included the provision of energy from renewable sources, thus making mobility a "zero emissions".
Car sharing with electric cars
The Municipality of Bologna, in collaboration with Tper, is making a strong efforts to improve and relaunch of the public car sharing service.

Thanks to a National fund Tper will soon make available to the service 6 new electric cars (Citroen C0)

At moment in Bologna the car sharing fleet is composed by 40 low pollutant vehicles
Electric mobility has great potential in terms of both atmospheric and acoustic pollution reduction and offers the possibility of numerous applications at the city level, with regard to private mobility on two and four wheels, the public transport, the urban logistics and fleet management.

The Emilia Romagna offers, primarily along the axis of the Via Emilia and the Adriatic, an ideal opportunity for the development of electric mobility on a regional basis, as the capitals are arranged at a distance of approximately one 30-50km on the other hand, in a range of extra-urban interaction between the towns fully compatible with the autonomy of electric vehicles currently in circulation.

The region is characterized by an intense traffic of inter-movement, mainly due to the different businesses in the area, including important phenomena of commuting and handling of goods in relation to these activities.
The project was submitted to the Ministry September 16, 2013.
Thanks to regional funds (total fund available: 680,000 € from Sept. 2011), residents in Bologna may receive an incentive of:

- 300 € to purchase an electric bicycle or an electric motorcycle
- 600 € if, at the moment of the purchase, an old motorcycle is scrapped

**Results:**

1,900 electric bicycles have been purchased
35 electric motorcycles have been purchased
205 old motorcycles have been scrapped

Initiative currently underway. Still available: 35,000 €

**Economic effects:**

- The total turnover of the initiative: almost € 2 million
- Satellite activities: companies in our territory have invested in the construction of electric bikes (eg. Wayel and Ducati)
The new Italian traffic law obliges the future drivers of mopeds to support practical tests in order to obtain the license. To this end, the Region has considered it important to fund the construction and equipping of areas in each province (total amount, approximately one million euro).

In particular, Wednesday, September 24, 2014 was inaugurated the "Garden of road safety education" in the municipality of Gossolengo (Piacenza). The area will be equipped with three moped and a motorcycle, all-wheel-drive power, and all the necessary equipment to operate safely within the field test. Thanks to the horizontal and vertical signs and structures that simulate road routes, you can play situations of urban traffic.

A safe and unique for the test drive mopeds in exam preparation for obtaining the license.

The project is the result of an agreement for the promotion of road between the Region of Emilia-Romagna and the Province of Piacenza, who in turn found support in the municipality of Gossolengo by entering into an agreement.

A first try for the new garden road were just boys of primary and secondary schools, who have experienced the test area for exercises with a path that mimics the most common situations of driving, and a building to support activities teaching.
ONGOING EUROPEAN PROJECTS SUPPORTING REGIONAL POLICIES

- Demonstrate the benefits arising from the adoption of sustainable forms of mobility

- Improve Central Europe’s interconnectivity by an intermodal integration of rail hubs at different levels and with LPT (TEN-T -> regional/local transport)

- Improve Regional Rail Transport in Central Europe

- Development of a prototype bus that can use a mixture of methane and hydrogen (15 %)

- Governance System for sustainable mobility

- Planning and investment decisions based on global transport costs

- European model for Public Transport Authority as a key factor leading to transport sustainability
Thank you for attention

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