

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

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Empowering e-fleets for business and private purposes in cities



Emilia-Romgna Region profile

EMILIA-ROMAGNA REGION PROFILE

Total population over **4,3 milions**
Surface **22.124 Km2**
9 Provinces
348 Municipalities
40% of total population lives in **13 main cities**



EMILIA-ROMAGNA REGION: SNAPSHOT



TEN-T network



POPULATION

4,432,439



LAND

22,445 km²



CAPITAL CITY: BOLOGNA

PROVINCES: 9

MUNICIPALITIES: 348

ENTREPRISES

383,549



GDP PER HABITANT

30,493 €

UNIVERSITIES



INDUSTRIAL CENTRES

10

REGISTERED VEHICLES

2,699,973



LPT Passengers /year

300 MLN = 260



DAILY TRIPS

8,927,000



AVERAGE DAILY TRAVEL [km]

44 km



AVERAGE DAILY TRAVEL [MINUTES]

66'



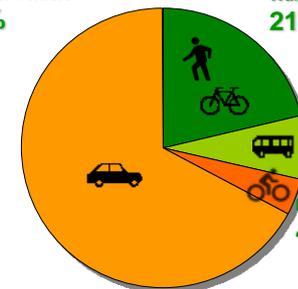
MODAL SHIFT

Passenger vehicle
67,2%

Walk or Bicycle
21,3%

LPT
7,3%

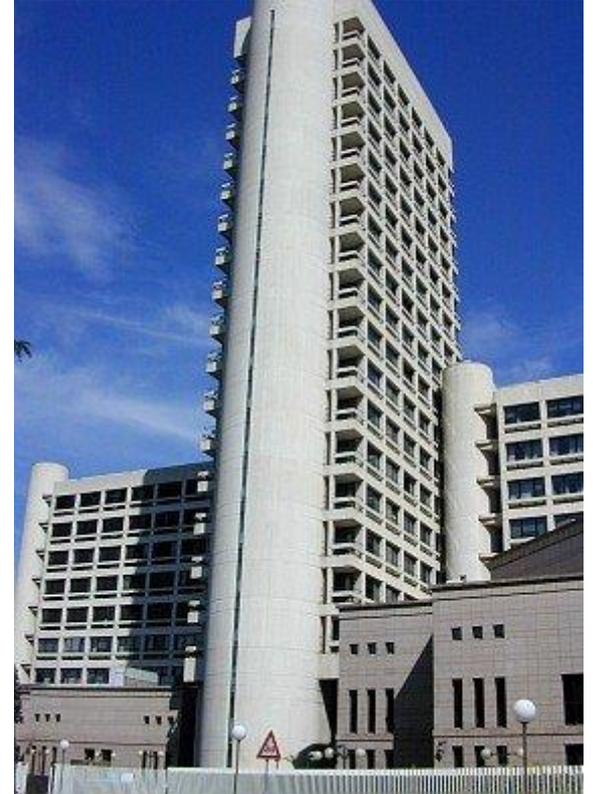
Motorbike
4,2%



MOBILITY AND TRANSPORT COUNCILLORSHIP'S COMPETENCES

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 Nuovo**: 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

Integration of the services

Fare integration



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

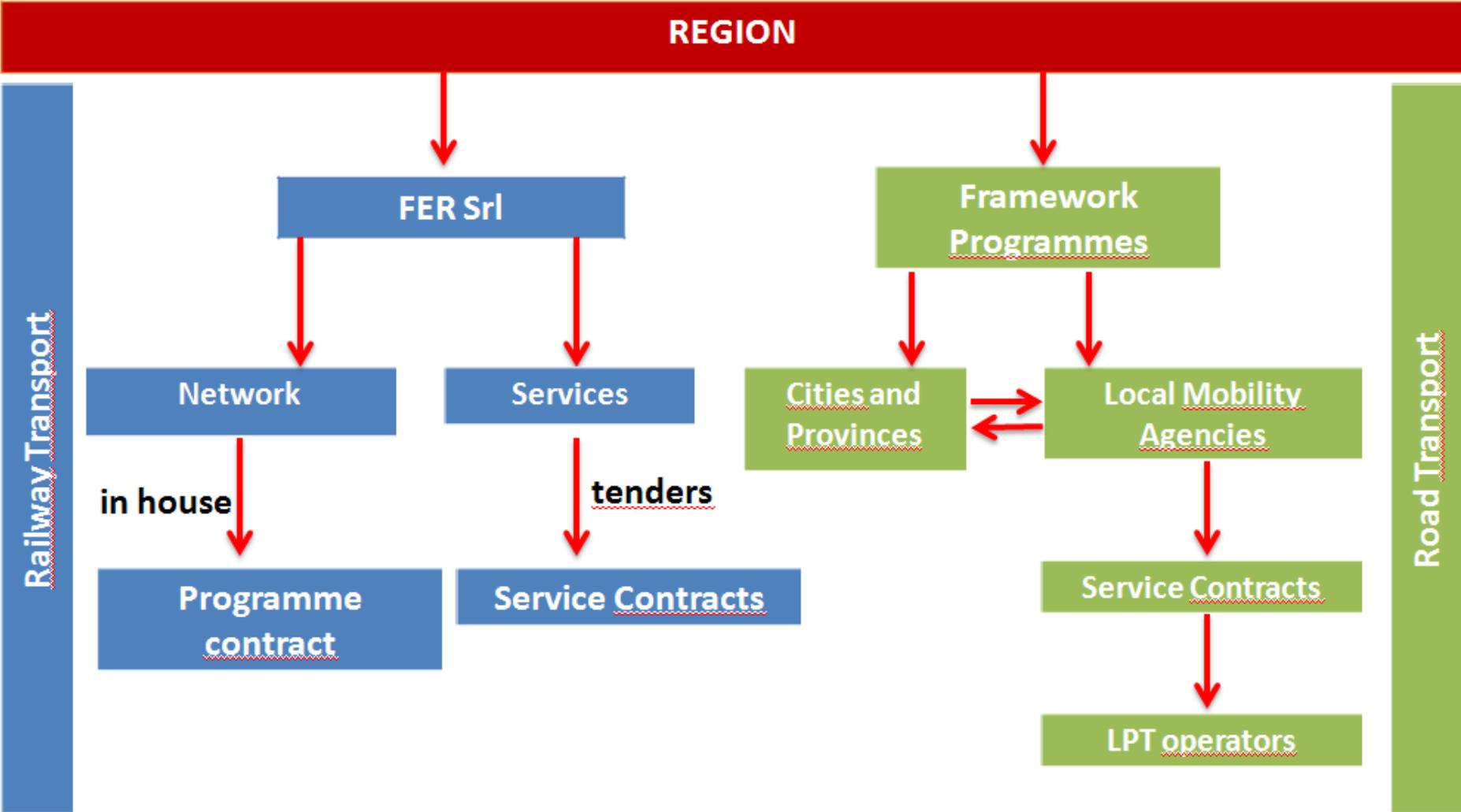
Infomobility

Travel Planner/Google Transit
the LPT integrated timetable
www.mobiliter.eu

A screenshot of a travel planner interface. It shows a search for a route from 'Viale Aldo Moro, 30, Dologna, DO' to 'via alberto dalla chiesa, Rimini'. The interface includes icons for bus, train, and walking, a departure time dropdown set to 12:00 on 19/06/13, and a 'TROVA INDICAZIONI STRADALI' button. Below, it lists suggested routes with icons for each mode of transport and total travel times: 2 ore 9 min, 2 ore 6 min, 2 ore 9 min, and 2 ore 9 min.

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

THE GOVERNANCE



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**



“Mi Nuovo”: THE MAIN GOALS

- ❖ 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

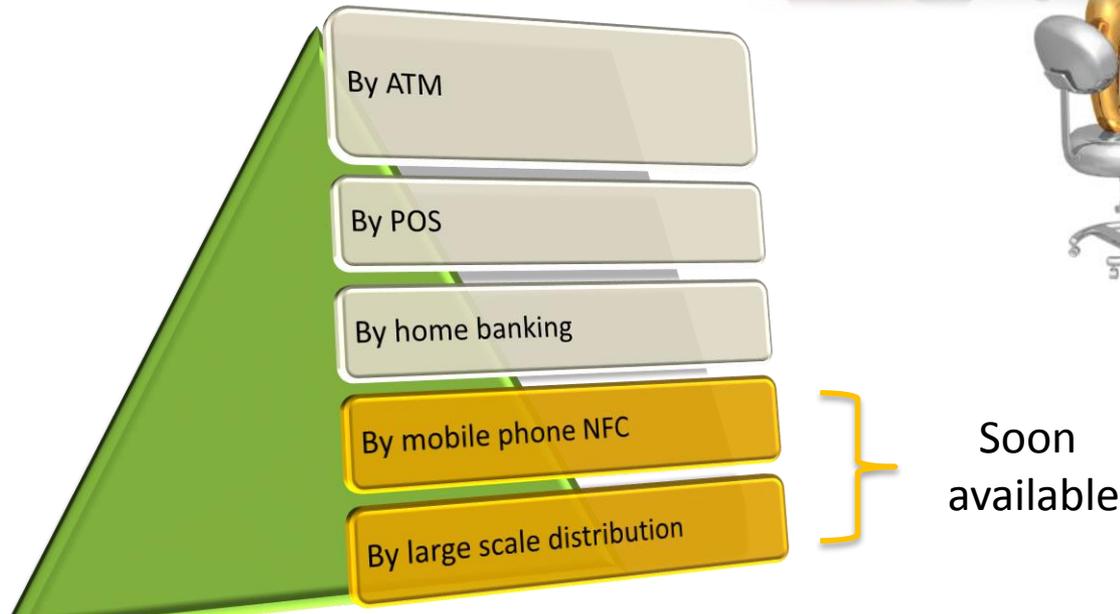


“Mi Nuovo”: WHERE IS ACTIVATED?



“Mi Nuovo” 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.



“Mi Nuovo”: TECHNOLOGICAL DEVICES AND COSTS



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).



MI Nuovo elettrico (I-E Travel)

Emilia-Romagna's challenge to promote electromobility "Mi Nuovo 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.



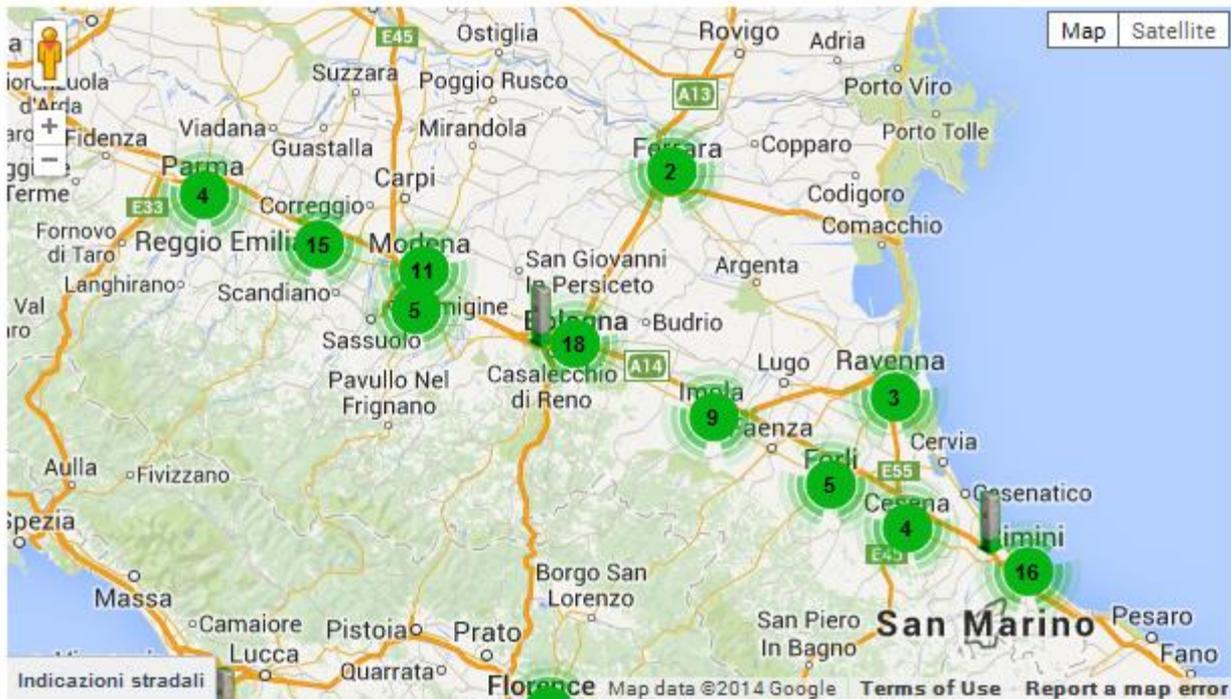
The Emilia-Romagna Regional Government has signed agreements with all the electricity **providers** operating in the region (ENEL, HERA and IREN), and with the main municipal administrations, setting up an **innovative charging points network, integrated in the "Mi Nuovo" chip card.**

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 Nuovo" 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".



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| stato | indirizzo | città | Asset Provider | serial number |
|-------------|--|--------|--------------------|----------------------|
| disponibile | Via Guido Monaco 28 | AREZZO | Enel Distribuzione | N.14EP22T5BA1F000004 |
| disponibile | Viale Milano Fiori | ASSAGO | Enel Distribuzione | N.11EP21T2301C000020 |
| disponibile | via Corsica | ASSAGO | Enel Distribuzione | N.13EP21T2301H000044 |
| disponibile | Via del Bosco Rinnovato - Parcheggio MM2 Milanofiori. N° 1 | ASSAGO | Enel Distribuzione | N.11AP21T2B02C000155 |
| disponibile | Via del Bosco Rinnovato - Parcheggio MM2 Milanofiori. N° 2 | ASSAGO | Enel Distribuzione | N.11AP21T2B02C000156 |

Dashboard

- 104.559** ricariche effettuate
- 3.055.964** kWh erogati
- 3.163.822** Kg risparmiati

CAR SHARING IN BOLOGNA

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 CO)

At moment in Bologna the car sharing fleet is composed by 40 low pollutant vehicles



MI MUOVO M.A.R.E. project

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.



MI MUOVO M.A.R.E. project

ASSESSORATO PROGRAMMAZIONE TERRITORIALE, URBANISTICA,
RETI DI INFRASTRUTTURE MATERIALI E IMMATERIALI
MOBILITÀ, LOGISTICA E TRASPORTI

Regione Emilia-Romagna

MI MUOVO M.A.R.E.

Mobilità Alternativa Ricariche Elettriche

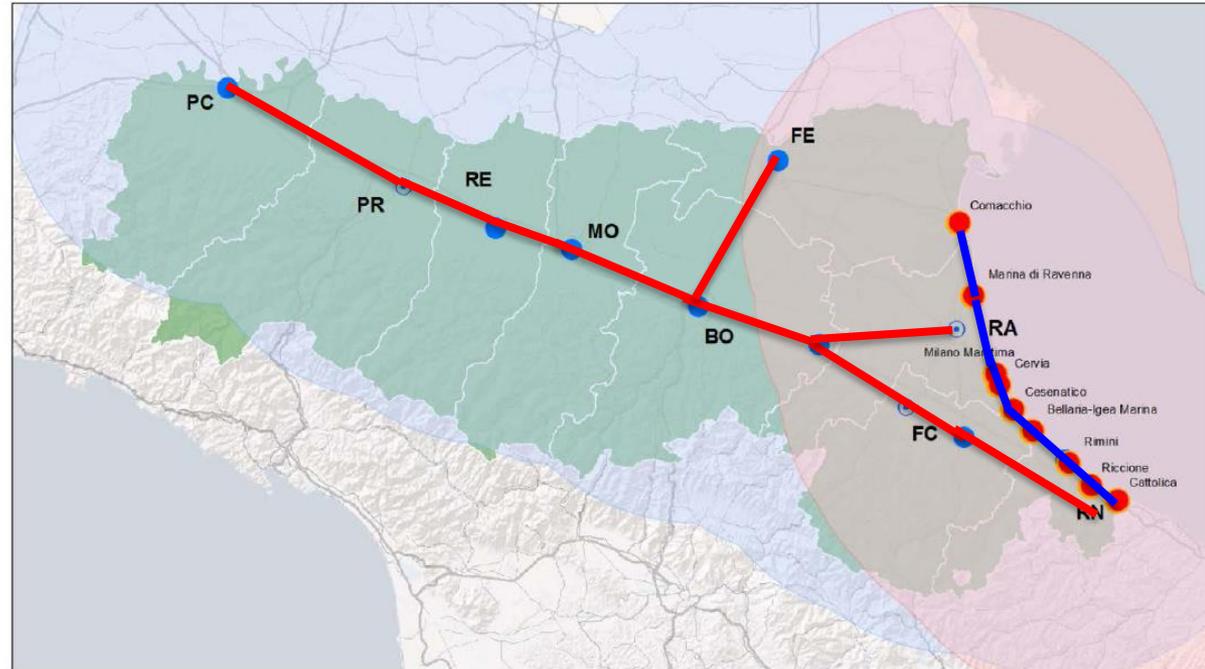
"Mi Muovo Elettrico" nella Riviera Adriatica dell'Emilia Romagna



RELAZIONE TECNICA E ALLEGATI

Bologna, 16 settembre 2013

L'Assessore Alfredo Peri



- Colonnine di ricarica Progetto Mi Muovo M.A.R.E.
- Colonnine di ricarica Esistenti
- ⦿ Colonnine di ricarica in fase di realizzazione
- Territorio entro 60 Km dalle colonnine di ricarica Progetto Mi Muovo M.A.R.E.
- Territorio entro 60 Km dalle colonnine di ricarica esistenti/ in realizzazione

The project was submitted to the Ministry September 16, 2013.

Regional funds for electric vehicles

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)

PER ATTRAVERSARE BOLOGNA CI VUOLE ENERGIA (PULITA)

INCENTIVI PER VEICOLI ELETTRICI

LA BICICLETTA A PEDALATA ELETTRICA
Incentivo a favore di coloro che desiderano acquistare una bicicletta a pedalata elettrica. Il valore di tale incentivo è pari a 300 euro. L'importo è versato in un'unica soluzione al momento della consegna del veicolo. Per accedere all'incentivo è necessario presentare una domanda di partecipazione all'iniziativa entro il 31/12/2011.

IL QUADROCELETTICO
Incentivo a favore di coloro che desiderano acquistare un veicolo a motore elettrico. Il valore di tale incentivo è pari a 600 euro. L'importo è versato in un'unica soluzione al momento della consegna del veicolo. Per accedere all'incentivo è necessario presentare una domanda di partecipazione all'iniziativa entro il 31/12/2011.

INFORMAZIONI
L'iniziativa è riservata ai cittadini residenti in Comune di Bologna. Sono ammesse le partecipazioni individuali e le partecipazioni in società. Per informazioni e per accedere all'iniziativa è necessario rivolgersi al Servizio Clienti della Regione Emilia-Romagna al numero verde 800 00 00 00.

CONDIZIONI PARTICOLARI
L'importo dell'incentivo è versato in un'unica soluzione al momento della consegna del veicolo. Per accedere all'incentivo è necessario presentare una domanda di partecipazione all'iniziativa entro il 31/12/2011.

DOVE PRESENTARE LA DOMANDA
La domanda di partecipazione all'iniziativa deve essere presentata presso il Servizio Clienti della Regione Emilia-Romagna al numero verde 800 00 00 00.

info: Servizio Clienti della Regione Emilia-Romagna al numero verde 800 00 00 00. Per informazioni e per accedere all'iniziativa è necessario rivolgersi al Servizio Clienti della Regione Emilia-Romagna al numero verde 800 00 00 00.

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 mopeds 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 area 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



THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION



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

EUROPEAN UNION
DEVELOPMENT FUND



CENTRAL EUROPE
GOVERNANCE FOR SUCCESS



- 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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