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CIVITAS ANNUAL CONFERENCE | 23-26 SEPTEMBER 2014 | CASABLANCA

On going electromobility pilot projects in Bologna

Mr. Cleto Carlini

Municipality of Bologna, ITALY

24th September, 2014

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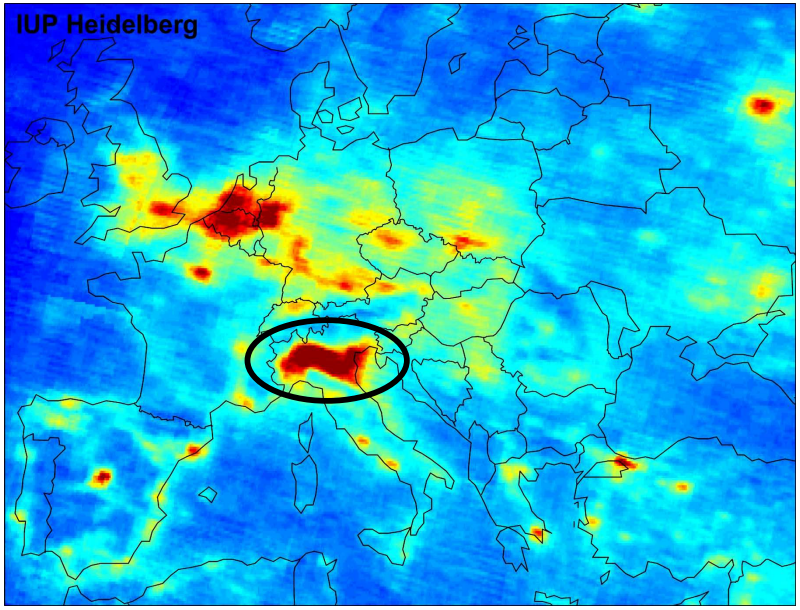
Bologna: overview on urban mobility

	N° Inhabitants	Area (Km2)
Pedestrian Areas	~ 12,000	0.88
Limited Traffic Zone - L.T.Z.	~ 45,000	3.20
City Centre	~ 53,000	4.51
Municipality Area	~ 380,000	140.85
Overall demographic size	~ 650,000	



The Municipality of Bologna has been involved over the last few years in a plan intended to limit the negative effects of traffic. These are, first and foremost, traffic congestion and air pollution, longstanding problems in many Italian cities

Bologna: urban traffic plan

CRITICAL FACTORS:

⇒ Congestion due to private cars and parking

⇒ Air and noise Pollution

⇒ Road accidents

AREAS:

⇒ Environment (sustainable accessibility)

⇒ Mobility (wide accessibility)

⇒ Safety (protect "weak" road users)

PGTU – URBAN TRAFFIC PLAN

(Approved by the Municipality of Bologna Council in June 2007)

Reduces air and noise pollution

Improves Road Safety

Encourages more eco-compatible vehicles

Increases public transports

Saves energy in the transports sector

Achieves widely-available but sustainable access

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On going electromobility pilot projects in Bologna

- **The relaunch of the city's public transport system**

- scheduled public transport

- non-scheduled public transport

- **Using the electric vehicle for private travel**

- the e-vehicle charging infrastructure

- regulatory measures (easier access to LTZs)

- subsidies for electric vehicles purchase

- e-bike project

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The relaunch of the city's public transport system

The trolleybus network

PROJECT	FINANCING (infrastructure and transport)	Km OF TROLLEY	COMPLETION OF WORK
Current trolleybus lines	14 Ml €	67 km	Operational
Crealis line	182 Ml €	32 km	Spring 2015
Trolleybus extension (ex metro funds)	127 Ml €	89 km	2019
Extension line 13 and 14	4 Ml €	7 km	2019
Full trolleybus network	**317 ML €**	**195 km**	**2019**

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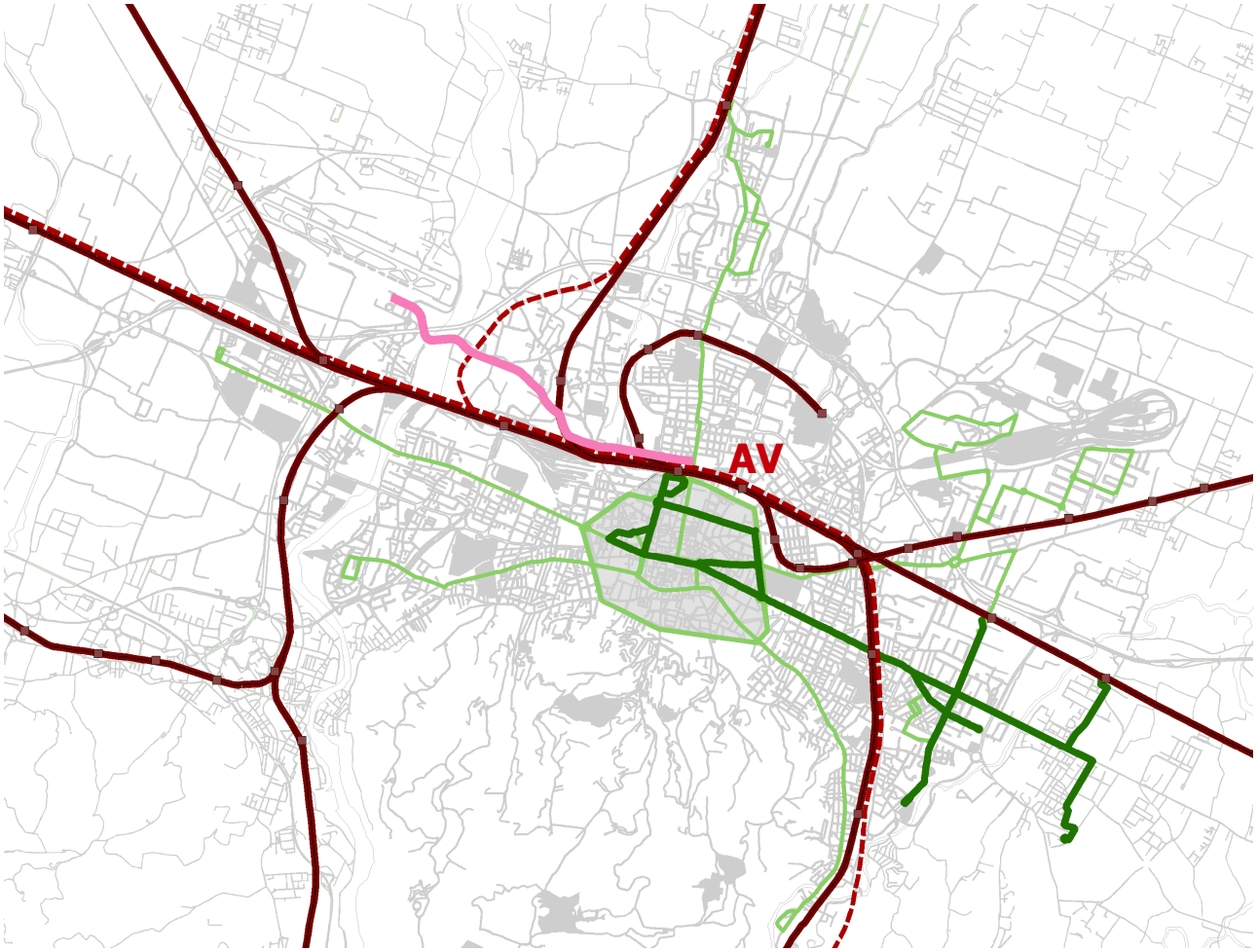
The relaunch of the city's public transport system: scheduled public transport



> **AV**: high speed railway (railway connection of national importance)

> **MRS** Metropolitan Rail Service: + 7 Stations in Municipality area

> **PEOPLE MOVER** (5 km Monorail to connect the Airport with the city Railway station

> **Trolleybus**

> **Trolleybus planned**

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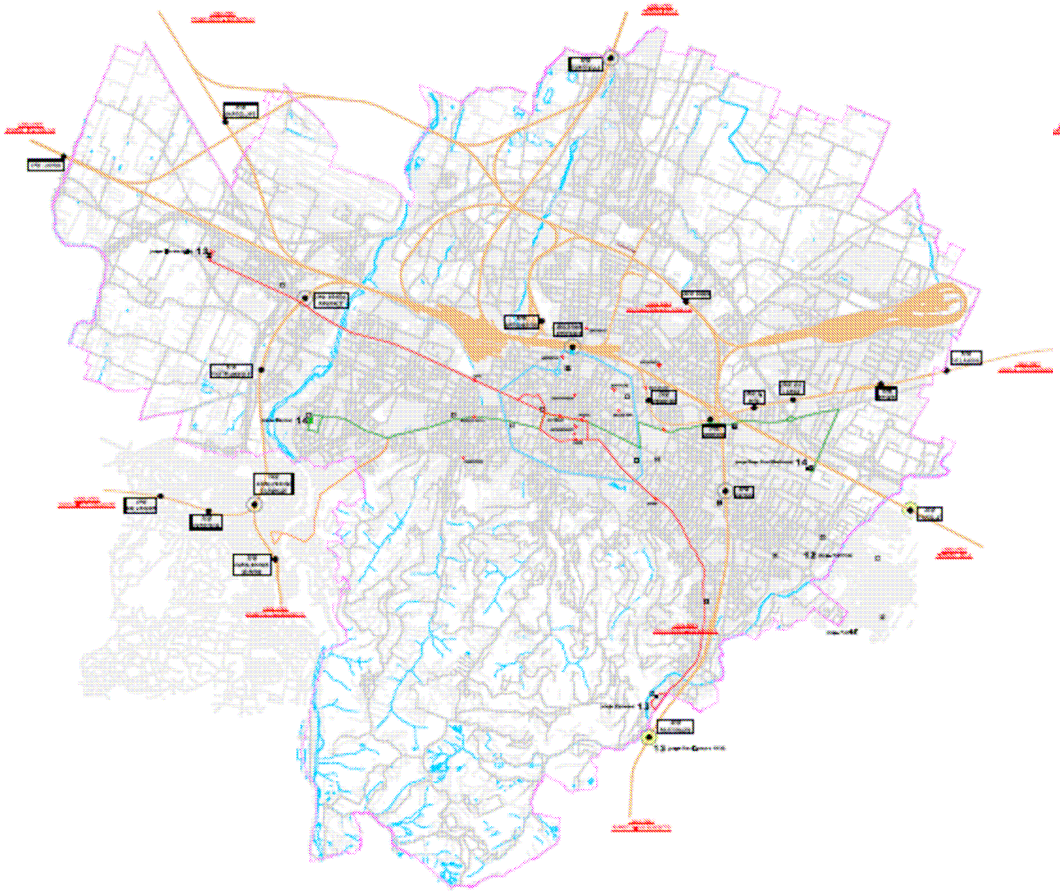
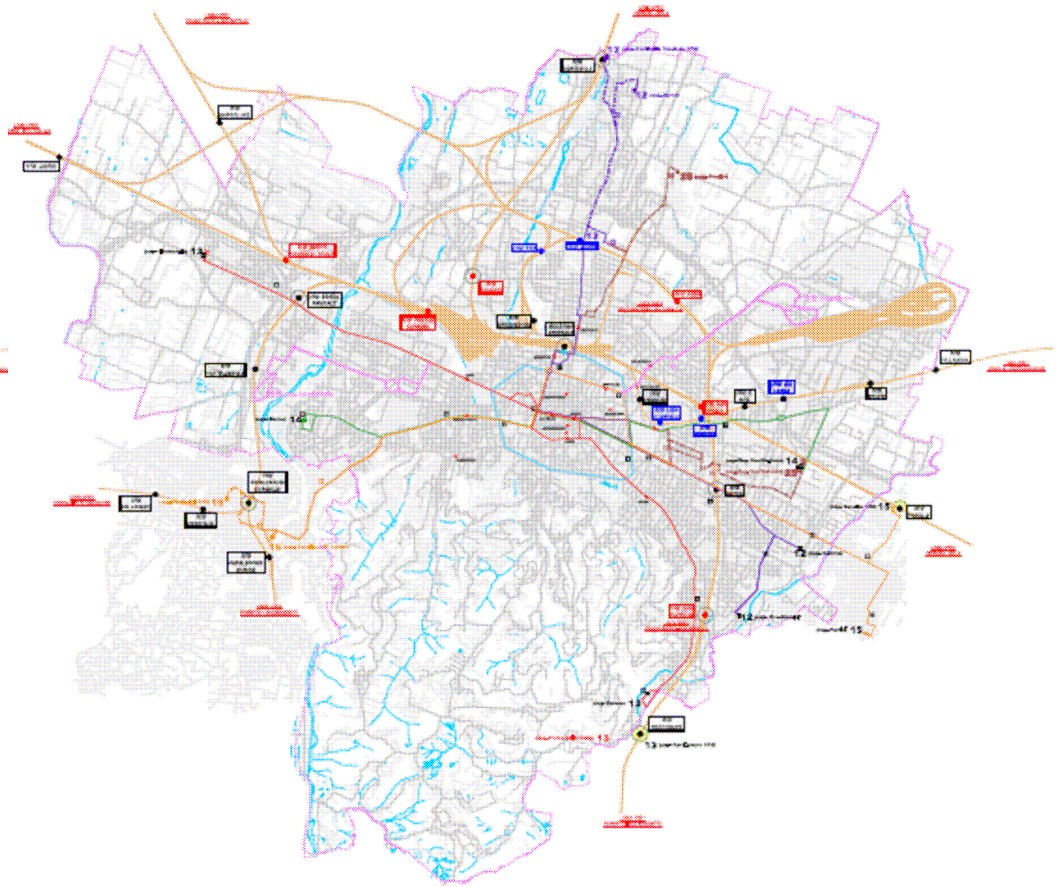
The relaunch of the city's public transport system



Existing trolleybus network (about 60 km)
Lines 13, 14, 32 e 33



Trolleybus network: final project scheme (about 125 km). Lines 13, 14, 32, 33, 12, 15 e 19

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The relaunch of the city's public transport system

Trolleybus network

Works for the new trolleylines will include measures for:

- reorganization and upgrading of the road;
- creation of docks more comfortable for users;
- construction of new sections of bus lanes, equipped with instruments of remote control against illegal transits;
- removal of architectural barriers;
- installation of canopies and intelligent poles for real-time informations

The relaunch of the city's public transport system: trolleybus network

Line 12: stop in via Matteotti

Pre intervention in comparison with future layouts

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The relaunch of the city's public transport system

Feature of new trolleybuses:

- urban-type articulated 4-port (length 18 m)
- with loader
- three axes
- able to operate regardless of the rated operating Voltage of 600 volts DC or 750 volts DC
- auxiliary gear autonomous independent from the line of contact
-easy access and transport of a passengers with reduced mobility

Further feature trolleybus named “C**realis neo**”:

- optical guidance
- approach to the dock
- better visibility of the driver's seat

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Non-scheduled public transport: subsidies for purchase of clean vehicles for the taxi service

Number of taxi licenses in Bologna: 746

Thanks to a total amount of Eur 100.000 (arising from proceeds for the issuance of new taxi licenses) 50 vehicle have been purchased:

- 38 hybrid vehicles

-12 natural gas-fueled

Subsidy was Eur 2,000.00 for the purchase of a motor vehicle with hybrid drive, electric or CNG-powered for the taxi service

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The relaunch of the city's public transport system: other public transport opportunities

Car sharing with electric cars

The Municipality of Bologna, in collaboration with Tper*, is making efforts to improve and relaunch the public car sharing.

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

Such electric cars will run together with other low pollutant vehicles in the car sharing fleet of 40 cars

*company managing the service in Bologna

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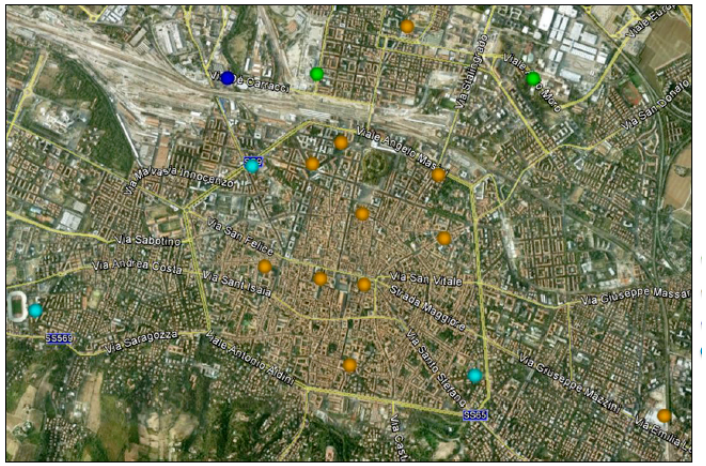
Using the electric vehicle for private travel

Public charging stations for electric vehicles

2010: signing of the Agreement on public charging stations for electric vehicles (Municipality of Bologna, Emilia-Romagna Region and ENEL*)

Actually in Bologna 18 charging points have been installed



*electricity provider

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Using the electric vehicle for private travel: regulatory measures

Access and parking rules in restricted traffic zone

Electric vehicles are allowed to:

-circulate within the LTZs in the historical centre without any time restrictions (h24)

- free park in on-street parking places

- circular when are valid measures of limitation for air quality

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Using the electric vehicle for private travel: subsidies for electric vehicles purchase

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)

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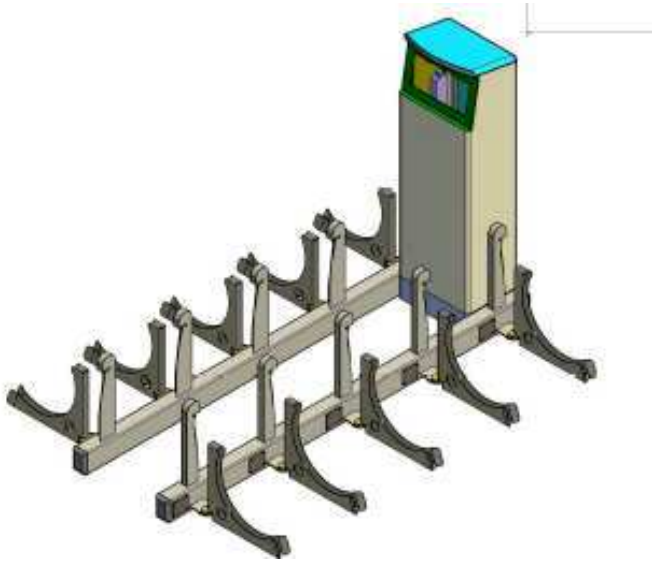
Using the electric vehicle for private travel: mobility management policies of the municipality

E-bike0 project

- The project involves the movement of employees and politicians of the Municipality and the movement of the University staff and the Healthcare Department in Bologna.

- Actually 10 prototypes of electric bicycle have been installed in the court of the local Government and 40 are close to be delivered.



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Thank you!

COMUNE DI BOLOGNA

Contact Details

Mr. Cleto Carlini

Municipality of Bologna

ITALY

cleto.carlini@comune.bologna.it

http://www.civitas.eu

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