

DEMOCRITOS PROJECT

Lisboa

14th September 2011

The ECOPASS experience in Milan

Milano



Comune
di Milano

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Comune
di Milano

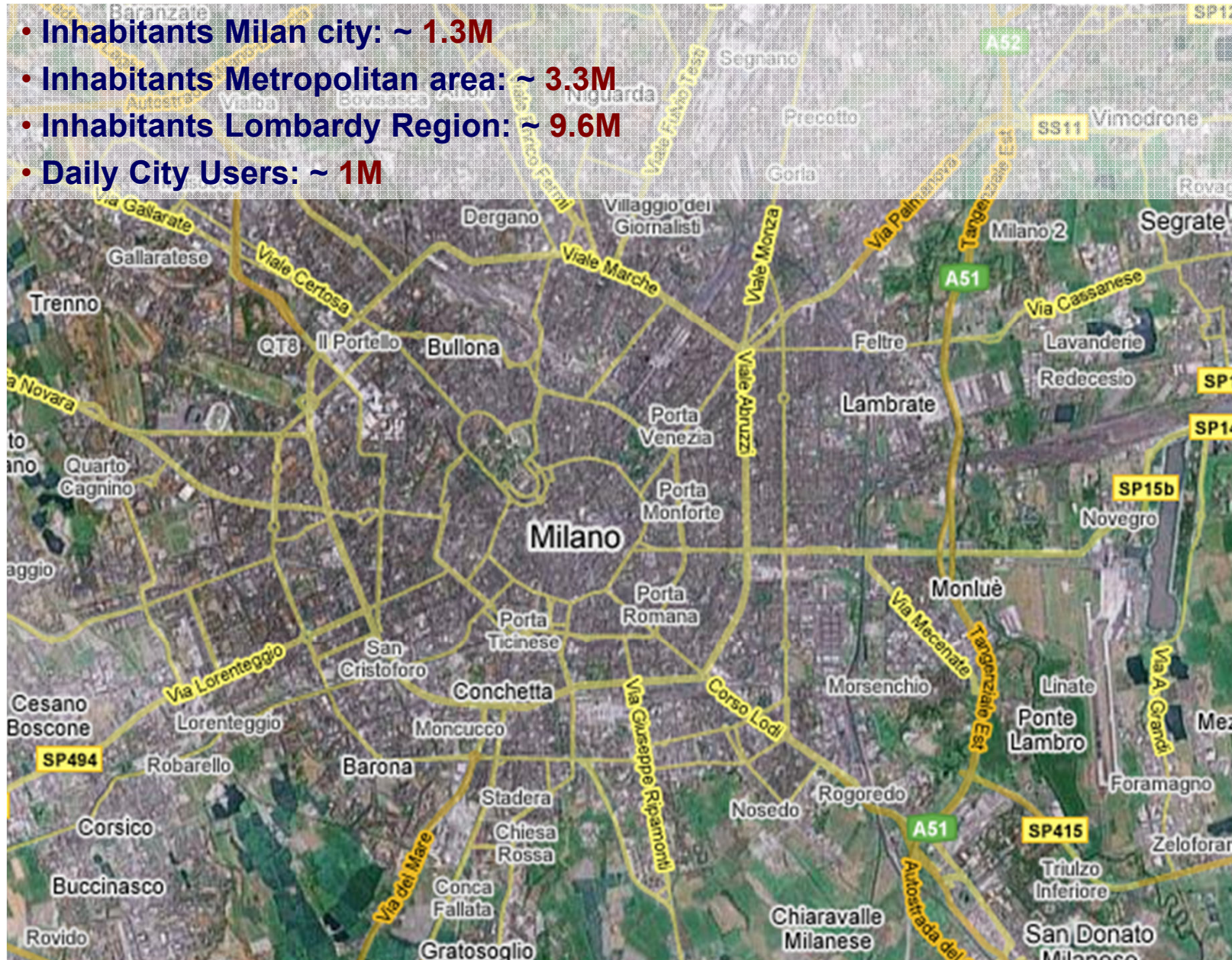
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AGENZIA
MOBILITÀ
AMBIENTE
TERRITORIO

MILAN - General information

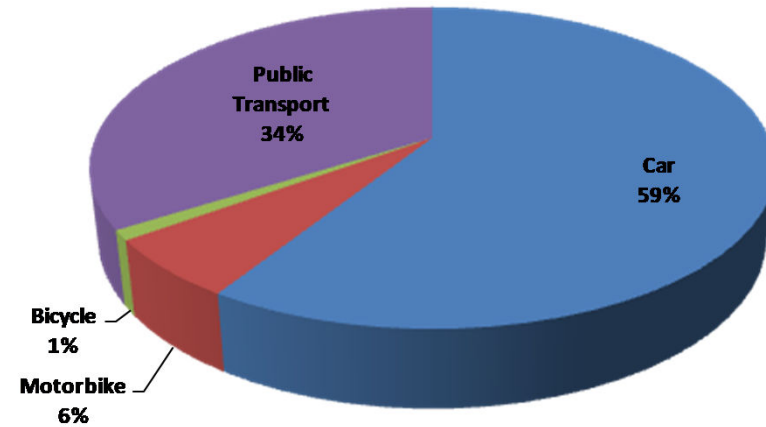
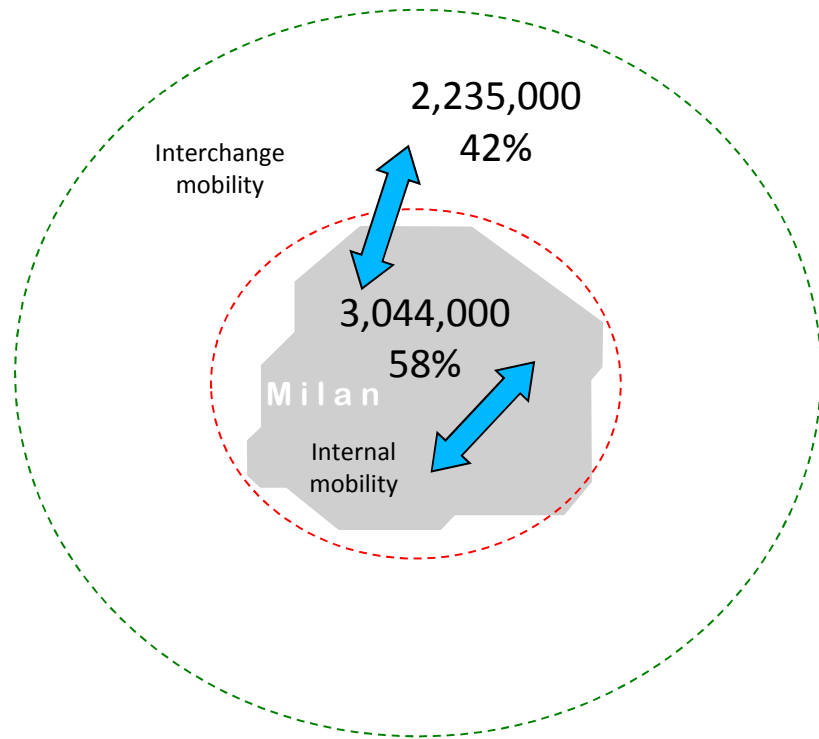
- Inhabitants Milan city: ~ **1.3M**
- Inhabitants Metropolitan area: ~ **3.3M**
- Inhabitants Lombardy Region: ~ **9.6M**
- Daily City Users: ~ **1M**



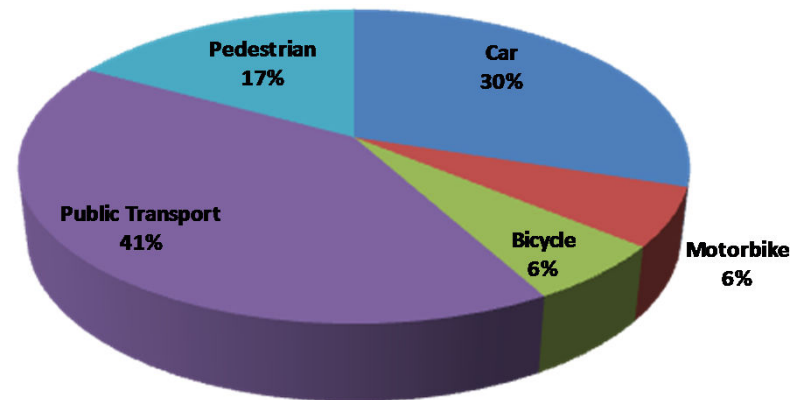
MILAN – Travel, Trips and modal split

Travel between Milan and the metropolitan area - Modal Split

Overall mobility (Trips per day)
5,279,000



Travel in Milan city - Modal Split





ECOPASS - Introduction

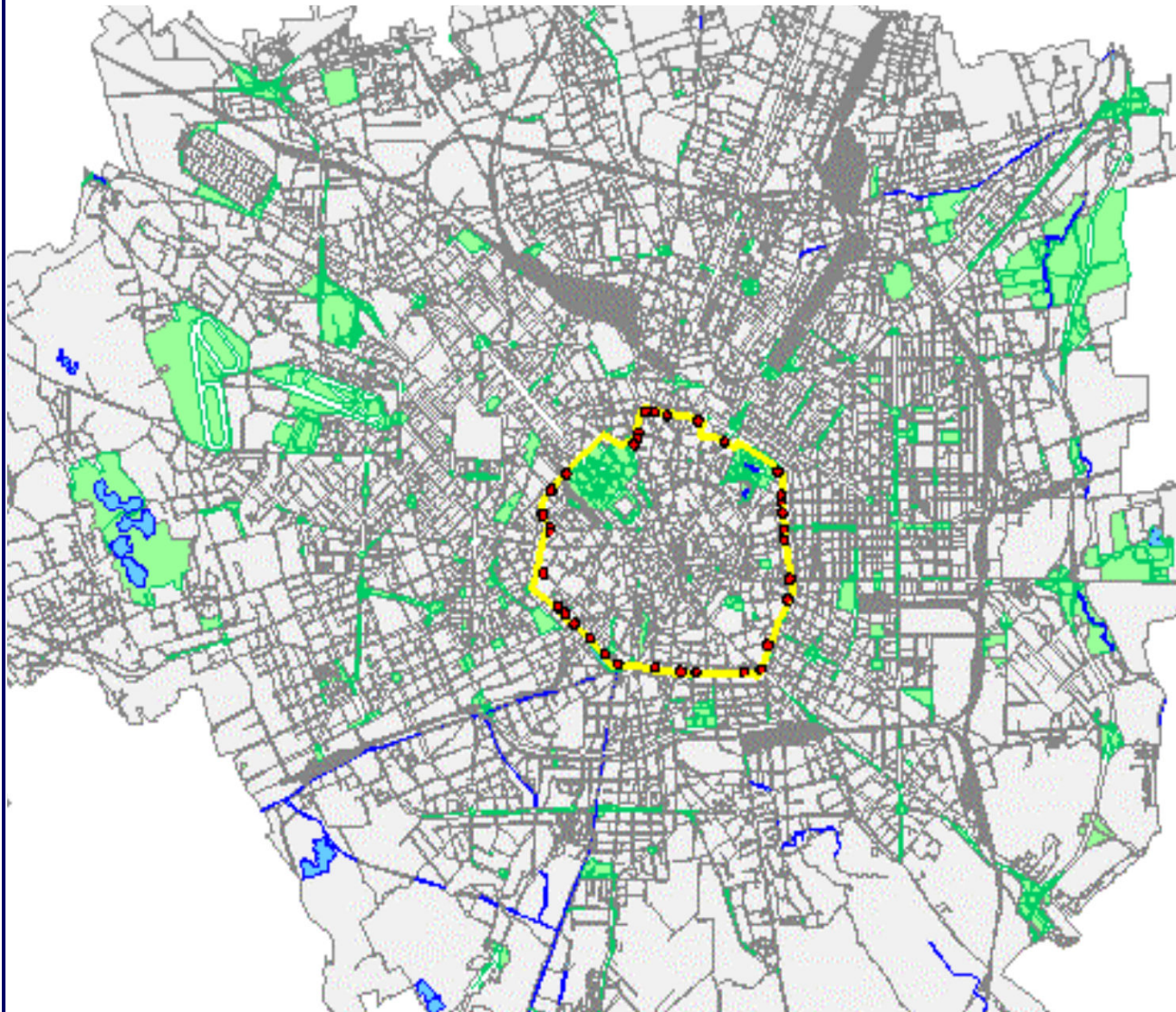
ECOPASS started operating on 2 January 2008 in the Milan central city ring zone known as LTZ “Cerchia dei Bastioni”.

ECOPASS is a Limited Traffic Zone (LTZ) scheme; vehicles are charged to enter the area and the fee structure is based on the vehicles' emission standards.





ECOPASS - Area



AREA

- 8.2 Km² (4.5%)
- 77,000 residents (6%)
- 43 entry points

TRAFFIC

- 159,000 entries before starting Ecopass
- 98,000 vehicles

OPERATING TIMES

- Weekdays from 7.30 am to 7.30 pm



ECOPASS – Pollution classes



CLASSI INQUINAMENTO	CATEGORIA EURO VEICOLI
CLASSE I	GPL METANO IBRIDI ELETTRICI
CLASSE II	Auto, merci e autobus benzina Euro 3, Euro 4 e successivi Auto, merci e autobus Diesel Euro 3 e successivi con filtro antiparticolato omologato installato di serie al momento dell'acquisto Auto, merci e autobus Diesel con filtro antiparticolato omologato installato successivamente all'acquisto e inquadrabili, ai fini dell'inquinamento da massa di particolato, come Euro 5 Autoveicoli Diesel Euro 5 per trasporto di persone e merci senza filtro antiparticolato (esentati fino al 30.09.2011)
CLASSE III	Auto, merci e autobus benzina Euro 1 e 2
CLASSE IV	Auto e merci benzina pre-Euro (Euro 0) Auto diesel Euro 1, 2, 3 Merci diesel Euro 3 Autobus benzina pre-Euro (Euro 0) e diesel Euro 4 e successivi Auto e merci diesel Euro 4 senza filtro antiparticolato
CLASSE V	Auto diesel pre-Euro (Euro 0) Merci diesel pre-Euro (Euro 0), Euro 1 e 2 Autobus diesel pre-Euro (Euro 0), Euro 1, 2 e 3

Class I and II – Free of Access

CLASSE INQUINAMENTO	INGRESSO GIORNALIERO	INGRESSO MULTIPLO AGEVOLATO		ABBONAMENTO ANNUALE FACOLTATIVO RESIDENTI ZTL CERCHIA DEI BASTIONI
		PRIMI 50 INGRESSI	SUCCESSIVI 50 INGRESSI	
CLASSE I	ACCESSO LIBERO	ACCESSO LIBERO		ACCESSO LIBERO
CLASSE II	ACCESSO LIBERO	ACCESSO LIBERO		ACCESSO LIBERO
CLASSE III	€ 2	€ 50	€ 60	€ 50
CLASSE IV	€ 5	€ 125	€ 150	€ 125
CLASSE V	€ 10	€ 250	€ 300	€ 250

VALIDO SOLO PER AUTO TRASPORTO PERSONE

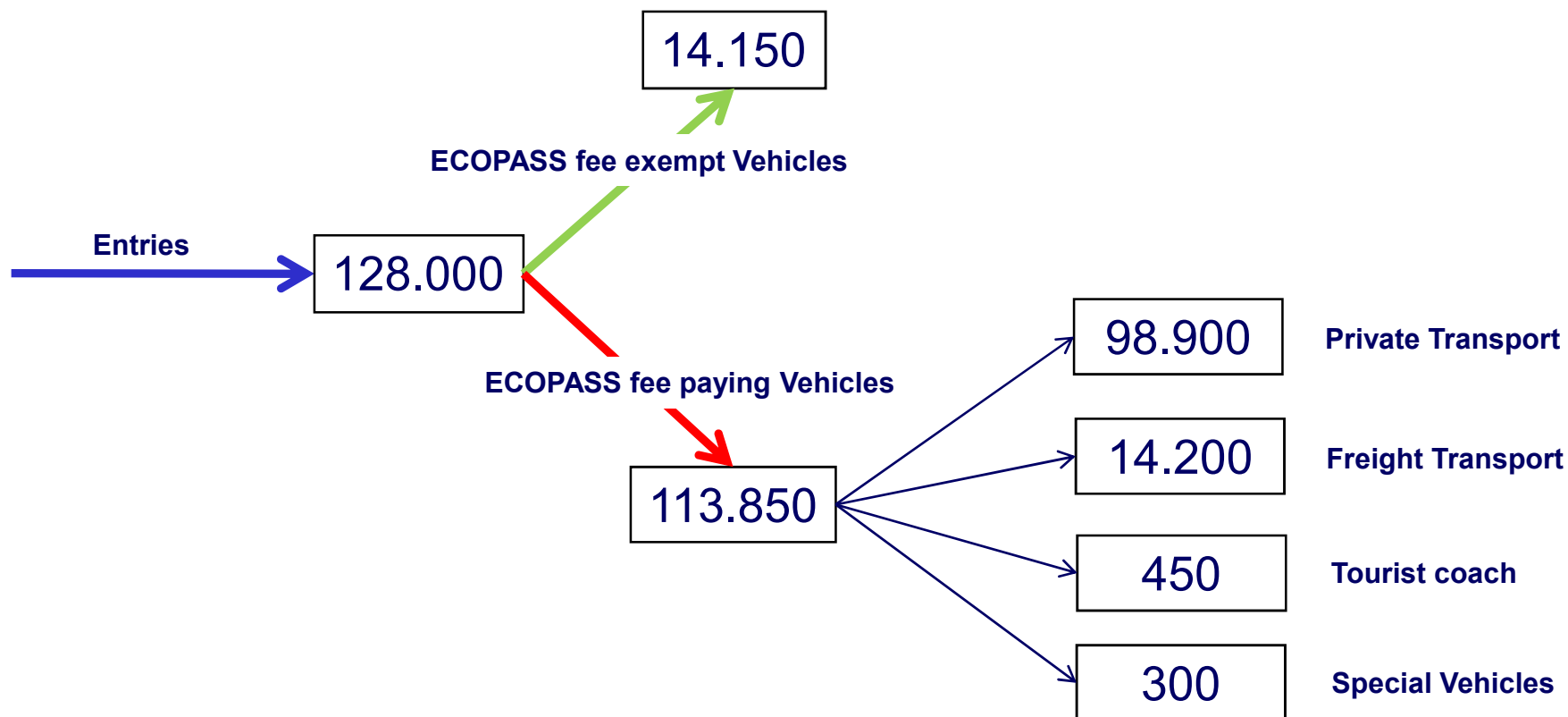
Class III, IV and V – Pollution charge

ECOPASS – Traffic structure



Data updated to June 2011

Entries average 7:30 am – 7:30 pm when ECOPASS measure is in force



ECOPASS – Traffic structure



Splitting of vehicles entering the ECOPASS Area among different ECOPASS classes

	Before Ecopass (November 2007)	February 2008	June 2011
Class 1	1,3%	2,6%	9,0%
Class 2	60,0%	77,3%	76,5%
Class 3	14,0%	8,9%	3,5%
Class 4	24,7%	11,2%	10,9%
Class 5	0,0%	0,0%	0,0%
Total (paying vehicles classes)	38,7%	20,1%	14,4%
COMMERCIAL VEHICLES, SPECIAL VEHICLES AND BUSES			
	Before Ecopass (November 2007)	February 2008	June 2011
Class 1	0,7%	3,6%	16,9%
Class 2	25,8%	39,3%	47,3%
Class 3	2,7%	2,4%	1,4%
Class 4	50,5%	41,4%	30,2%
Class 5	20,3%	13,2%	4,3%
Total (paying vehicles classes)	73,5%	57,0%	35,8%



ECOPASS – Area peculiar characteristics

The “Cerchia dei Bastioni” **ECOPASS** Limited Traffic Zone is the inner area of Milan:

- Has an appropriate layout advising drivers about a limited traffic zone
- Requires small infrastructural works to set up the entry points
- Has very good Local Public Transport coverage
- The LPT can carry a potential of about 80,000 pax/h
 - 3 underground lines
 - More than 28 road transport lines





ECOPASS – The Electronic Gates



Integrated IR illuminator

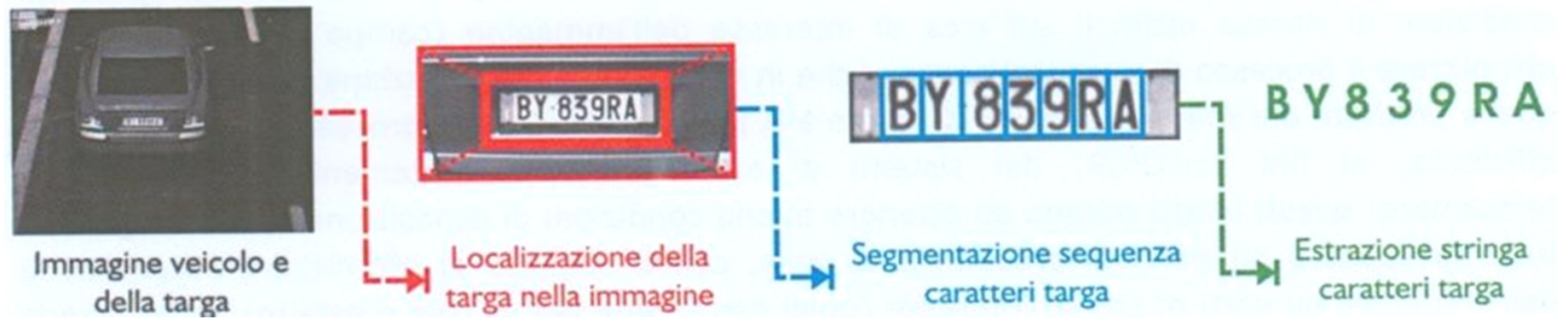


Context (CTX) camera





ECOPASS – Automatic plate recognition system



IR camera with OCR

Context (CTX) camera

The screenshot shows the S.R.I. WEB SYSTEM interface with a table of transit data:

Stato	Strada	Dir	Sen	Targa	Verificata	ASS	Esigono
PORTA VENEZIA	37832908	00:00:09	NA	DC37PT	<input type="checkbox"/>	0	-
PORTA VENEZIA	37832908	00:00:03	NA	CZ37RC	<input type="checkbox"/>	0	-
PORTA VENEZIA	37832908	00:00:06	NA	DW19OC	<input type="checkbox"/>	0	-
PORTA VENEZIA	37832908	00:00:08	NA	Cx437G	<input type="checkbox"/>	0	-
PORTA VENEZIA	37832908	00:00:08	NA	EL026J	<input type="checkbox"/>	0	-
PORTA VENEZIA	37832908	00:00:12	NA	AB865R	<input type="checkbox"/>	0	-
PORTA VENEZIA	37832908	00:00:14	NA	CV82UJ	<input type="checkbox"/>	0	-
PORTA VENEZIA	37832908	00:00:17	NA	D5124B	<input type="checkbox"/>	0	-
PORTA VENEZIA	37832908	00:00:17	NA	B98MOC	<input type="checkbox"/>	0	-
PORTA VENEZIA	37832908	00:00:18	NA	CE180H	<input type="checkbox"/>	0	-

List of transits



ECOPASS - Regulations



The ECOPASS system operates Monday to Friday from 7.30 am to 7.30 pm



With ECOPASS, vehicles have all-day free access to the "Cerchia dei Bastioni" limited traffic zone (LTZ), identified as the ECOPASS area.



It is possible to pay ECOPASS by midnight on the day after entering the ECOPASS Area.



Restrictions imposed by existing limited traffic zones (LTZ) are still effective in the ECOPASS Area.

Exemptions

ECOPASS exemptions:

- mopeds, motor scooters and motorbikes
- vehicles for the disabled and/or vehicles displaying a disabled notice.

Residents in the ECOPASS Area

Residents in the "Cerchia dei Bastioni" ECOPASS limited traffic zone (LTZ) can apply for a discounted annual pass, depending on their car's emission class (€50, €125, €250)

The following categories are also considered Ecopass Area residents:

- Tenants with a registered lease;
- People who live outside the ECOPASS Area but whose garage or car space is located inside the ECOPASS Area.



ECOPASS - Methods of payment

CARD



- Available at authorised ATM sales outlets, tobacconists, news stands and ATM Points
- follow the instructions on the back of the Card to activate the charge

TELEFONO



- Freephone number 800.437.437 (Italy only), Mondays to Saturdays (not bank holidays) from 7 am to 8 pm
- By Credit Card (Mastercard, Moneta and VISA)
- The charge is automatically activated at the time of the request
- The receipt will be sent to an email address and/or mobile phone number

INTERNET



- Internet: www.comune.milano.it/ecopass
- By Credit Card (Mastercard, Moneta and VISA)
- The charge is activated at the time of the request
- The receipt will be sent to an email address and/or mobile phone number

BANCOMAT



- ATM in the Intesa-SanPaolo circuit
- The charge is activated at the time of the request with receipt issued by the ATM

RID

- You can also arrange to activate payment by Direct Debit from your bank account



ECOPASS – Communication and Information campaigns



- ECOPASS Internet portal
- Press, radio and TV campaigns
- Billboards
- Information leaflets





ECOPASS – Results 2010*

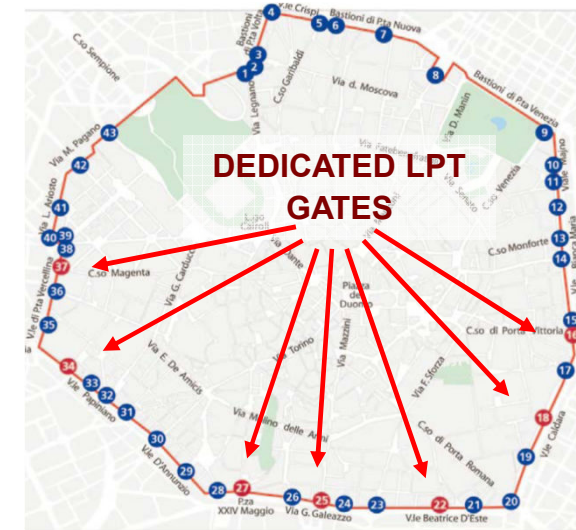
- Reductions of commercial and private traffic during ECOPASS system operating hours - **16.2%**
- Change in the kinds of vehicles entering and circulating, with significantly lower numbers of the more polluting vehicles (fee-paying classes) - **67.9%**
- Reduction of accidents - **12.8%**
- Increase of operating speed of public transport + **7.9%**
- Increase of passengers using public transport + **8.1 %**
- Reduction of the daily average emissions of pollutants in the ECOPASS area:
 - Total PM10 - **15%**
 - Exhaust PM10 - **25%**

* Compared to the benchmark before ECOPASS

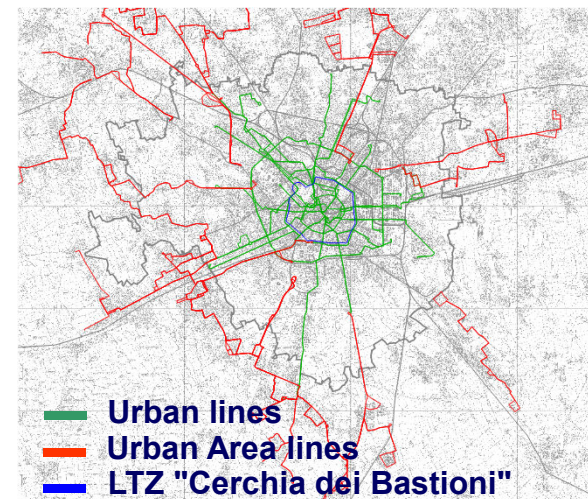


ECOPASS - Additional measures for LPT

- Priority Lanes and Dedicated LPT Gates: have been created 15+ km of new priority lanes for public transport along the main tramways and roadways

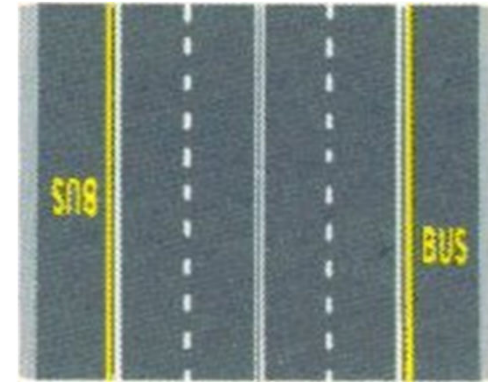


- Increased LPT Frequencies: The public transport service has been upgraded with 1300+ runs a day on 40 ground lines.

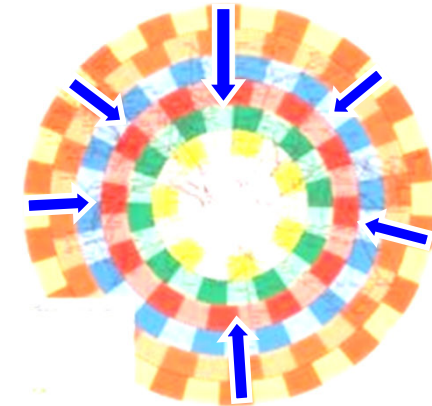


Development and Integration policies for LPT

- Increasing the LPT Priority lanes in order to increase operating speed and regularity of the ground public transport



- Faring system integration and electronic-magnetic ticketing

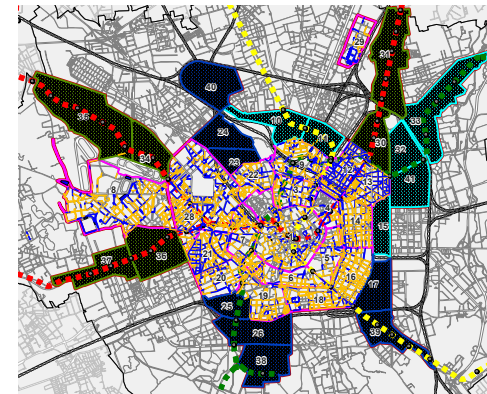


- Renewal of lower environmental impact LPT fleet: 450 new EEV buses, 60 trolley buses, 57 trams, 36 trains, 18 reconditioned



Parking, Pedestrian and Cycling improvement policies

- Extending the regulated parking areas and development of new interchange parkings



- Increasing of pedestrian, residential and Limited Traffic Zone areas



- Extension of the bicycle lanes network



Innovative and Sustainable Mobility Systems

- Extension of the served areas and improvement of the dial-a-ride service
- Increasing and further development of the car-sharing service, also adopting electric vehicles
- Extension of the bike sharing system in new areas (Phase 2, + 100 stations under implementation)
- Launch and development of the public recharging infrastructure for electric vehicles



Thank you!

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