



## Milan, Italy

Milan urban area and Lombardy region are at the centre of European traffic flows, both north-south and west-east corridors. High population density, traffic flows and economic activities made Milan one of the most congested urban areas in Europe. In Lombardy each day 5.7 million people move towards urban areas, 95% inside the region. About 48% of daily transits are for business and head toward Milan urban area.

### Why was urban road user charging introduced in Milan?

The introduction of a road user charging scheme – the so-called Ecopass – aims to:

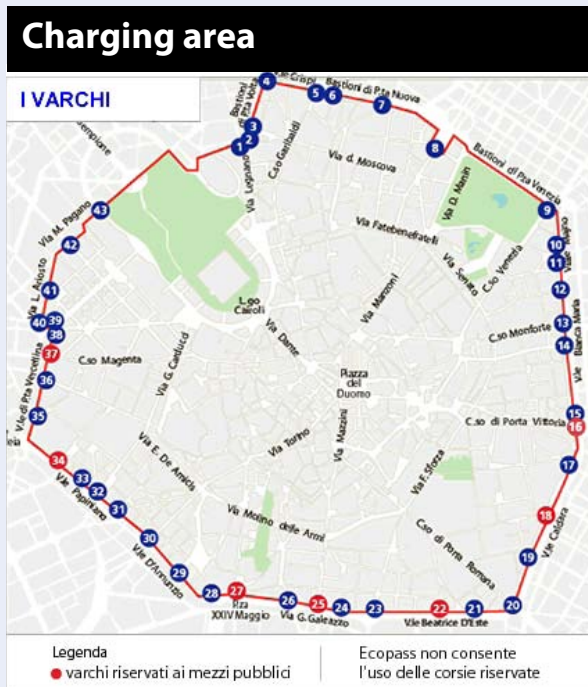
- make the air cleaner by reducing PM emissions in the Cerchia dei Bastioni by 30%, with a positive impact on the surrounding areas of the city as well;
- relieve congestion by reducing the number of incoming cars by 10% and thereby speeding up public transport in the area;
- boost public transport by reinvesting all Ecopass charges in sustainable traffic and a sustainable environment

By local law, all net revenues have to be invested in providing urban sustainable mobility and public transport.

### What are the features of the Milan scheme?

In contrast with the majority of urban road user charging systems, the Milan scheme named “Ecopass” is a pollution charging system: all vehicles are classified in respect of “pollution classes” and charged depending on this classification (based on COPERT 4 methodology). Ecopass started on 2nd January 2008 and consists of a charge applied to vehicles circulating within the city centre area during working days (Monday to Friday) from 7.30 to 19.30 p.m. The Ecopass Area has 43 entrance points, each equipped with CCTV (closed-circuit television) cameras designed to record vehicles entering and exiting the zone. Cameras can record licence plate numbers and pollution class with a 90% accuracy rate through automatic number plate recognition (ANPR) technology.

Each vehicle has its registration book for the European Directive and with the information inside this document it is possible to identify the Euro Category corresponding to the registered level of PM10 emissions for his vehicle. After having recognised the pollution class of the vehicle, the user will pay the charge (from €2 to €10 for daily entrance) corresponding to a certain level of PM10 emissions his vehicle is characterised by. The ecopass ticket is required for private and commercial vehicles.



## How was the Milan scheme implemented?

After almost a year of Ecopass implementation, people are now asking the Municipality whether or not it will make the measure permanent. Some associations have supported a survey about a possible extension of Ecopass. The first results (not definitive) showed that 38% of respondents were in favour of an expansion of LTZ, 31% were satisfied with the actual road user charging scheme but would like to extend charging to the most polluting motorcycles and mopeds, 18% would also like to charge also Euro 3 gasoline and Euro 4 Diesel cars which are currently exempt from Ecopass charge, and 7% would like to increase the tariff in force.

## Impacts of the Milan scheme

Since Ecopass scheme started, Milan Central area has encountered a daily traffic flow reduction of 14.4% and a decrease in accidents, registered when the scheme is operating, equal to 14.4%. Daily surveys by the Urban Transport Agency of Milan (A.T.M.) within the Ecopass area, show shorter journey times and better performance of bus and trams. Furthermore, a first estimation of modal shift towards the metro lines shows that the number of outbound passengers at metro stations located inside the Ecopass Area has increased by 6.2%. Comparing circulating classes of vehicles before and after the scheme implementation, the average number of vehicles included within Ecopass chargeable classes has



diminished by 56.7%. A first evaluation of traffic emissions before and after the implementation of the Ecopass scheme reveals that there has been a reduction from traffic exhaust emissions of 14% for PM10, 11% for NO<sub>x</sub> and 37% for NH<sub>3</sub> (ammonia).

## Conclusion

The Ecopass initiative will be accompanied by other important interventions. Some of these are already being implemented, including an improvement of the public transport system, which connects the 32 municipalities of the urban area to the city centre. Bus frequency has risen 13% to 20% depending on the line.

