

Deliverable Summary

DELIVERABLE KEY INFORMATION	
Document Code	D.8.2.3
Title of Document	Report on system deployment and testing
Reference Workpackage	WP8
Reference Measure	8.2
Contractual Date of Delivery	15.01.2010 (month 15)
Actual Date of Delivery	03/02/10
Dissemination Level	PU
Date of Preparation	01/2010
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The main purpose of the present deliverable consists of reporting the system testing and deployment of the measure 8.2, in order to show the benefits reached for public transport and traffic congestion and the results obtained against illegal parking. This evaluation is very important in order to define further applications of the system employed.

Context and Purpose

Before the beginning of Mimosa, the illegal on-street parking (i.e. in double row) was not efficiently controlled and this phenomenon strongly damaged public transport and the ordinary circulation. In a context made by narrow streets, this attitude needed to be modified in order to better regulate the normal parking offer and to let the road more available for circulation. ITS instruments can provide concrete and efficient solutions to traffic problems. The objective of this measure is to decrease the illegal on-street parking via electronic mobile enforcement and in consequence to facilitate road circulation (especially for bus) and to reduce traffic congestion.

The Municipality decided to deploy this measure inside the MIMOSA proposal in order to demonstrate the feasibility and the effectiveness of a regulatory action implemented via the ITS instruments, as the fixed enforcement gates already deployed have demonstrated. This regulatory measure, aiming to change the road users behaviour, will fit with the general public transport improvement strategy, promoted at local and EU level.

The improvement of the existing ITS enforcement systems with cameras consists of some innovative mobile cameras suitable to detect illegal parking and to support enforcement activity realised by Municipal Police officers.

The system has been already studied and the process consists of:

- Taking a photo of the car, illegally parked (on the sidewalk, in double row, on a bus line, on a bus stop, on the pedestrian crossing, on a "no parking" area, too far or not parallel to the street border, on an intersection area).
- Automatic Number Plate Recognising and fine process activation since the picture detection;
- A **GPS** satellite application on board will provide the exact position of the vehicle in order to avoid dispute when the fine have issued.

Photos of illegal on road parking detected by SCOUT



The technological instrument: "SCOUT"



SCOUT™
PC VEICOLARE MULTIFUNZIONE

Summary Contents

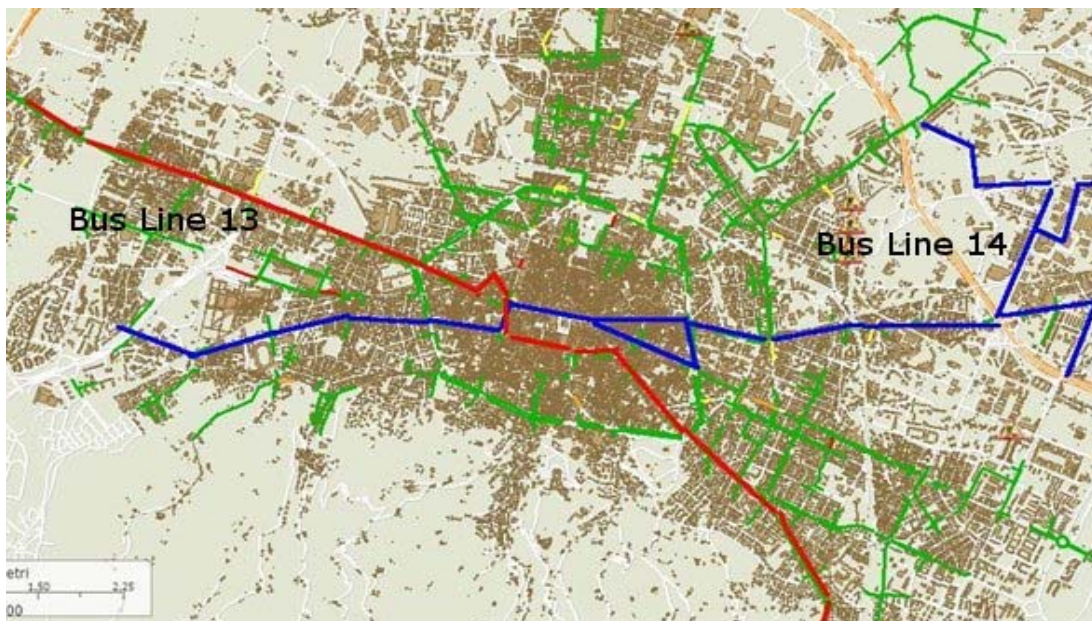
The Municipality of Bologna, thanks to a strong institutional support, was the first in Italy to adopt these innovative mobile cameras against illegal on road parking, since March 2008 when the first pilot system was used and starting from the end of 2008 with an extensive use in the operative phase.

The use of this ITS device had a good acceptance especially among public transport users and cyclists, that could see quite quickly the related benefits, such as an improvement of bus regularity and traffic congestion; in fact, one of the main purposes of this device employment is to provide concrete and efficient solutions to traffic problems.



The main activities that have been carried out within this measure are:

- The Municipality of Bologna has employed this ITS device to control one bus itinerary (Bus number 14: Massarenti, San Vitale, Rizzoli - Ugo Bassi – A. Costa) in order to detect illegal on street parking;
- The control of illegal on street parking is active every working day (by morning and afternoon) thanks to the operators of Municipal Police Department;
- Training courses for operators of the Mobility Company of Bologna (ATC) are in progress with the support of Municipal Police Department;
- From the 2nd of February 2010 a second bus line (number 13, that covers Toscana street, Murri, Santo Stefano, Farini, Lame and Saffi) will be controlled thanks to these innovative mobile cameras;
- The Police Department, thanks to this ITS device, has easily collected the data on the fines emitted for illegal parking and on the related legal arguments against the fines.

Map of the Bus Lines controlled by Scout



Legenda

-  Bus Line number 14 (Massarenti, San Vitale, Rizzoli - Ugo Bassi – A. Costa)
-  Bus line number 13 (Toscana, Murri, Santo Stefano and Farini)

From the collected data, we can sum up the following relevant aspects, after two years of mobile cameras use against illegal on road parking:

- For all the typologies of illegal on road parking, there is a reduction of fines comparing 2008 and 2009 in the areas interested by the Line of the bus 14, where SCOUT is active. In particular, the data collected from the Police Department show that *the reduction of parking on the bus line is 55%* and the *reduction of parking on excluded areas on vehicular transit is 38%*. The attached scheme shows fines trends in 2008 and 2009. The meaning of these data is that citizens presently know and accept this kind of enforcement and the number of infraction is strongly reduced.
- Consequent decrease of traffic congestion in correspondence of the controlled bus lines.
- Consequent improvement of bus regularity at the stop on the controlled lines (statistical data will be finalised after a sufficient observation period and will be reported in the evaluation reports foreseen).
- Low legal argument compared to the number of fines emitted thanks to this device (that can provide better proof of the illegal parking thanks to the photographs and to the GPS).

FINE TRENDS

TYPOLGY OF ILLEGAL ON ROAD PARKING	FINES MONTHLY AVERAGE FOR 2008	FINES MONTHLY AVERAGE FOR 2009	2009 percentage of reduction in comparison with 2008
SIDEWALK	120	90	-25
SECOND ROW	60	47	-22
ON THE BUS LINE	22	10	-55
BUS STOP	30	23	-23
PEDESTRIAN CROSSING	10	8	-20
TOO FAR FROM THE BORDER OR NOT PARALLEL TO THE BORDER	5	5	0
AREAS EXCLUDED TO VEHICULAR TRANSIT	13	8	-38
INTERSECTION AREA	10	8	-20
NO PARKING AREA (WITH ROAD SIGNAL)	220	190	-14
CLOSE TO THE GARBAGE BIN	43	35	-19
TOTAL	533	424	-20

* data provided from the Police department of the Municipality of Bologna

Functional Use

The importance of the present deliverable consists of keeping monitored the level of the system deployment and its benefits for urban mobility improvement. Thanks to the analysis of the collected data, related to the emitted fines, to the regularity of the bus at the stop and to the reduction of illegal parking, it is presently possible to identify the specific reasons of success of this new ITS device:

- the system acts as a strong deterrent against illegal on road parking reduction;
- the use of an ITS device that supports the agent during the control is very innovative and gives a more scientific value to the fines (the GPS satellite application on board provides the exact position of the vehicle, the Number Plate Recognising is automatic and the picture detection is the first step to activate the fine process);
- the system allows to collect easily different categories of data, that can be very useful to plan future actions and interventions on urban mobility;
- the system provides concrete and efficient solutions to traffic problems.

Attachment

Brochure of the instrument.

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