RTD Fact Sheet Template

SYSTEM DEPLOYMENT AND TESTING RTD FACT SHEET	
Reference Measure	BOL 8.2 Illegal on Street Parking Reduction
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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 measure 8.2 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. The RTD activity consisted in 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 was very important in order to define further applications of the system employed.

Description of RTD Activity

The activity is focused on the reporting and evaluation of the system, the main features, the controlled bus lines the first results reached. The importance of the activity consisted on keeping monitored the level of the system deployment and its benefits for urban mobility improvement.
The results are reported as follows.
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. With particular reference to the privacy aspects the measure has been implemented under the rules of the Italian Street Code. Pictures taken are not reported to the driver that can go through them directly at the Police Department. Faces and plates of people/cars that are not involved in the infraction are backed out. 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 system scout

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 main activities that have been carried out 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;

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.

Outputs and Results

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 (Scout is an innovative way to detect an infraction respecting privacy law and the Italian street code rules. The level of knowledge /acceptance is deduced by the decreasing of the fines and it has been noticed by the Policed considering the reduction of the legal arguments for illegal on road parking).

- 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).

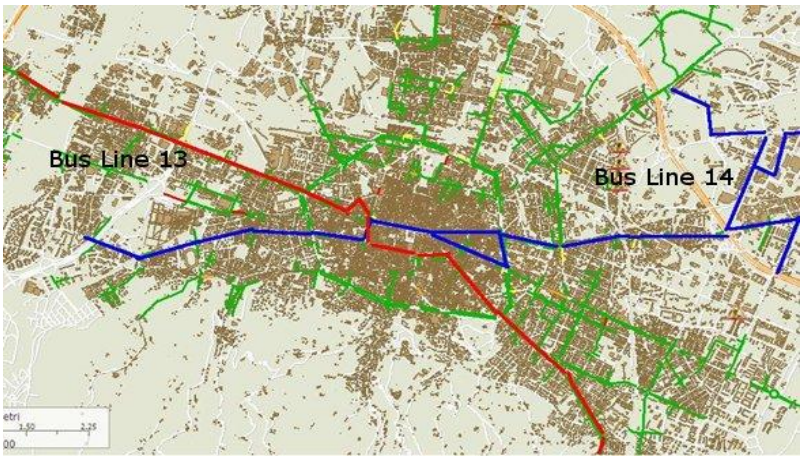
TYPOLOGY OF ILLEGAL ON ROAD PARKING	FINES MONTHLY AVERAGE FOR 2008	FINES MONTHLY AVERAGE FOR 2009	2009 percentage of reduction in comparison with 2008
SIDEWALK	**120**	**90**	**-25**
SECOND ROW	**60**	**47**	**-22**
ON THE BUS LINE	**22**	**10**	**-55**
BUS STOP	**30**	**23**	**-23**
PEDESTRIAN CROSSING	**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

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.

Resulting Decision-making

The analysis was very important in order to individuate and validate the possibility of new applications of the system employed: from the 2nd of February 2010 a second bus line (number 13, that covers Toscana street, Murri, Santo Stefano, Farini, Lame and Saffi) is controlled thanks to these innovative mobile cameras. In addition, during 2010 areas controlled by the system have been extended (Irnerio Street). The actual map of the Bus Lines controlled by Scout is reported as follows.



Legenda

Bus Line number 14 (Massarenti, San Vitale, Rizzoli - Ugo Bassi – A. Costa)

Bus line number 13 (Toscana, Murri, Santo Stefano and Farini)

Lessons Learnt

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.

Cost-effectiveness

The results are in line with expectations and supported informed decisions.

Dissemination and Exploitation

This RTD was specifically made in order to give a first evaluation of the measure. The Scout starting up has been communicated to citizens before the implementation of the measure via press office of the Municipality.

A Communication activity about first results achieved has been made in April 2009 in occasion of a workshop involving politicians, municipal police of other cities of Emilia Romagna Region and technical partners. During the workshop and the related press conference, the results of the first year of implementation have been presented to representatives of major television and newspaper journalists.