

Deliverable Summary

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Context and Purpose

In accordance with the Italian National Road Safety Plan and to the EU White Paper on Road Safety, in 2003 the Municipality of Bologna has carried out its Urban Traffic Safety Plan. Within the Plan several actions were planned to halve the number of killed and seriously wounded road users in 2010.

A first part of them has been realised and statistical data on casualties obtained until 2005 resulted to be in line with the provisional outline, but the road to achieve the planned goal was still long and hard at the beginning of MIMOSA. Further efforts have then been shared by all parties involved, including citizens and stakeholders to fulfil the objectives.

The Urban Traffic Safety Plan, as part of the PGTU (the Urban Traffic Plan of the city), focuses its attention on urban street accidents, where the Administration, owner of the streets, has got an exclusive competence of intervention.

The Safety Plan fields of action concern 4 main areas:

- a) Traffic Engineering
- b) Protection of weak users
- c) Control
- d) Education – Making aware

Purpose of the present Deliverable is to give a complete overview of the mitigation actions undertaken by the Municipality of Bologna with the support of the CIVITAS MIMOSA project (measure “5.1 BOL - Urban Traffic Safety Plan”) in order to

enhance road safety, whichever from an infrastructural or a non-infrastructural point of view.

Summary Contents

In the frame of road safety challenges, the Municipality of Bologna endorsed EU and national efforts for halving the number of road casualties (killed and seriously injured) by 2010. To reach this goal the Municipality carried out several measures both innovative and traditional.

Ordinary methods, designing a simple set of infrastructural actions localised in specific areas, are inadequate to reach such an ambitious goal. The high relevance of this issue, in fact, requires an innovative approach, addressing efforts toward extensive and long term measures. The Road Safety Master plan, already deployed, responds to these requirements with scientific and detailed focus.

Within MIMOSA project and in particular with the measure 5.1 BOL, the Municipality of Bologna has considered all the above mentioned 4 areas of intervention in a combined way in order to improve road safety. A strong connection with measure “5.2 BOL - Safer road to school”, completes the range of interventions undertaken by the Municipality on road safety with a specific focus on creating awareness on students as main target.

Description of the 4 typologies of intervention:

a) Traffic Engineering

Interventions on detected “black spots” (spots where a higher number of accidents have been measured) aimed to improve the quality of both infrastructure and road safety. Actions have considered both road infrastructure civil works and traffic scheme regulations and modifications.

b) Protection of weak users

In order to reduce the number of injuries and deaths, implemented actions aimed at standardizing the infrastructural interventions in favour of the weak users safety, which are as follows:

- presence of traffic lights at the intersections
- building of roundabouts
- traffic islands
- 30 km/h zones

In this context, the civil works to make safer the area around the primary school Felice Battaglia have been completed and a series of measures boosted both the use of walking and bicycles, and the realization of specific cycle paths and sideboards protected from street traffic and safe pedestrian crossing points.

Beside this, a specific project to make safer the areas around 9 selected elementary schools (outside MIMOSA) has been completed. The project consists of the realization of different interventions, such as: realisation of pedestrian crossings, cycle lanes, roundabouts, traffic lights and intermediate traffic islands.

c) Control

Actions undertaken under this topic have had the purpose to control the vehicles speed in the most dangerous black point (detected by statistical data on accidents and their causes) and to challenge the alcohol abuse when driving.

d) Education – Making aware

This action foresees a constant activity of training and education in schools in order to promote a sustainable mobility consciousness towards new generations (linked to measure 5.2 “safer road to school”).

This set of actions is undertaken in strict collaboration with Bologna Municipal Police Department, who organized many training courses (both in schools and on the road) addressed to different school levels (kindergartens, primary and high schools) in order to spread education and better knowledge about road safety.

In particular, during the European Mobility Week (EMW) editions, there has been a high involvement of schools during some special sessions dedicated to the theme of “Cycling in safety”. The event “Cycling in safety” comprised a safe cycling course for schools and children, organized by the Bologna Municipal Police Department. Children on bicycles were guided by Municipal Police officers through a cycle path designed in the middle of Piazza Maggiore (the central square of Bologna). Officers explained the meaning of road signs, the basic traffic rules and principles of safe riding. At the end of the short course, children were rewarded with a symbolic driving license and gadgets to make them aware about road safety. During the 2011 edition of the EMW the course involved 777 children (over two days).

By going more into details, the **set of infrastructural and non-infrastructural interventions** undertaken by Bologna Administration in the detected black spots, in the framework of the Traffic Safety Plan, have been the following:

- crossroads redrawing realised with modifications and adjustments (e.g. fitting of dimension and geometrical design);
- changes in circulation pattern within some areas (e.g. revoking priority of some roads and giving to someone else);
- traffic light renewing (e.g. review of traffic light phases and measures directed to increase the visibility of elements – equipment with led provided lamps).
- a set of non-infrastructural auxiliary actions such as:
 - supervision and surveillance measures carried out by Municipal Police, aimed to increase enforcement and reduce the number of road accidents (putting to work both electronic systems like Variable Message System – VMS panels alerting for speed limits and human resources like traffic cops enforcing circulation rules);
 - information, education and awareness projects, involving younger people (see measure 5.2 also);
 - involvement of older people (who are most exposed to danger);
- internet used to inform citizens about troubles that could be faced when going around the city (e.g. construction sites, roads currently not available) and to make citizens more aware of black spots and bad drivers behaviour;
- enhancing of electronic enforcement provided by ITS systems: more crossroads

will be monitored by Stars system (see measure 8.5).

Particular attention has been paid on demonstration of an innovative pilot for a 30 km/h speed limit area foreseen by this measure. The works designated for the 30 Km/h area were presented to citizens by the Mayor of Bologna in a public ceremony. This public event saw the participation of many people who had also the opportunity to exchange ideas and suggestions with technicians. The event was covered by local media (newspapers and news broadcasts).

The main phase of the works for the 30 Km/h area (located in via Garavaglia) has been completed. They mainly consisted in changes in circulation rules, re-design and infrastructure works for cross roads and pedestrian crossings. A central part of this area has been re-qualified (thanks to the presence of a new public garden) and has been pedestrianized.

During 2011 the changes in circulation rules in this area have been consolidated and made permanent. Thanks to the experience gained from the implementation of this first 30 km/h area located in via Garavaglia, the executive plan for the realization of another 30 km/h area (located in via Sacco and Vanzetti) has been started in cooperation with RER (outside MIMOSA).

Effectiveness of the set of intervention deployed has been evaluated comparing the initial existing situation with current one, by considering Municipal Police reports about accident and fine trends. This activity resulted to be fundamental to periodically update information on accident statistics (deaths and injuries) and consequently identify and intervene, if necessary, at the “black spots” listed and consequently set the priority for interventions.

First results obtained:

The followed approach permitted to evaluate the efforts made by the Municipality in order to improve safety, by firstly concentrating the analysis on the crossroads where effective interventions were planned and realized.

Monitoring on black spots is continuously on-going to monitor the efficacy of the implemented actions. From the first results, obtained thanks to the Evaluation analysis carried out by the Evaluation Team within Mimosa Project, we can observe:

- a significant decrease in accidents in crossings where interventions were realized;
- a general reduction of bad events from an average data of 64 units to 34 (more than 46%) and related casualties (-41%) in black spots involved in the CIVITAS MIMOSA measure.

Functional Use

The purpose of the present Deliverable is to give a complete overview of the mitigation actions undertaken by the Municipality of Bologna within the framework of the “Urban Traffic safety Plan” in order to enhance “road safety” in the city by combining infrastructural and non-infrastructural interventions.

Lessons learned

The combination of a continue action of black spots monitoring on behalf of Bologna Administration, together with a set of specific interventions – either infrastructural or non- infrastructural – within the framework of the Urban Traffic Safety Plan and in perfect accordance to its objectives, can be considered the best strategy to enhance road safety in the city. Furthermore, the strong connection with the “Safer Road to School” project (refer to measure 5.2), not only contributes to increase students moves’ safety but also to give to future generations a bigger knowledge of the criticality connected to the traffic and to make them aware of the alternative possibilities to cars and the motorcycles.

Attachment

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