

Prevention versus cure

Mauro Borioni reports from his home city of Bologna, Italy, where there is a sharp focus on security on the public transport network



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In addressing 'petty' or 'volume' crimes the SRM hopes to improve public safety and confidence around transport access points

In modern societies, and in the cities in particular, transport systems represent an essential and strategic factor. Millions of people move every day using their own vehicles or public transport commuting for study or work, going to shop or to use the services of the city, or just for leisure. As for urban areas the systems of surface transport play a major role in the life of the cities and communities that live there: motorway, bus, tram, rail and subway networks, linked and interconnected together, may be seen as the blood vessels that carry energy and feed the cities' organs.

Year by year, the surface transportation systems are more and more seen as attractive target for antisocial and criminal actions, due to their openness by design, the wide accessibility they are characterized, the number of people they serve every day, combined with their increasing complexity and interdependency. And this is true at different levels, starting with antisocial behaviors and volume crimes, such as harassing passengers at bus stops for example, up to criminal acts and terrorists attacks against critical infrastructures for transportation, as the bombing attacks against the railway system in Madrid in 2004, and against the London Underground in 2005.

SCRATCHING THE SURFACE

This all means that one of the greatest challenges to tackle today is the protection of surface transportation systems – in the city of Bologna the problem of crime prevention, and protection of infrastructures

for the transportation of people is a key issue. For this reason, SRM (the agency responsible for mobility and public transport in Bologna) is currently engaged at European level in order to seek solutions and effective procedures, and make them suitable to the reality of the city and to face the proliferation of criminal acts in the context of transport systems, whether they are characterized by high or low severity.

With regard to petty crimes, the commitment of SRM originates from the awareness of the impact that they may have on public transport and how public transport is perceived by the citizens.

The term petty crime can be actually be rather misleading. Usually referring to vandalism, graffiti, shoplifting or thefts, if compared to terrorist attacks they could be seen as having a low impact. But this assumption is substantially wrong. Indeed, their impact at social and even economic level increases significantly, and they assume a great importance, especially when they are frequent and amalgamated. Petty crimes may actually undermine the social fabric of the community as it is associated with high rate of fear and general alienation from participation in community life: in this sense, the term "volume" crime would be more appropriate.

ASK THE PEOPLE

Every year SRM conducts a survey interviewing about 2,000 people living in Bologna (users and potential users of public transport). Among

several other questions, the interviewees are asked about security perception whilst using public transport, especially with regards to pick-pocketing or harassment. Findings make evident that the need to improve security is a priority.

In the last survey, security factors seemed to be of high importance for the passengers, as they received a ranking of 9.32/10 (it was 9.25/10 in 2011), higher even more than punctuality and cleanliness, and it is stated to be part of the 'expected quality'. The results of the "perceived quality" survey show that the satisfaction about the current situation regarding security is evaluated at 6.90/10 in services performed by bus in the urban and suburban areas of Bologna.

Even if some improvement has been recently registered, the service should still be improved on the security aspects in order to be considered fine by the users. Furthermore, considering the service performed by train at local level (the Metropolitan Rail Service), the factor related to perceived security is evaluated at 7/10, indicating that there is room for improvement also in this area.

The P-REACT project, funded by the European Union under the Seventh Framework Programme and in which SRM is involved as the Italian partner, offers the possibility to test a solution to increase the security (and its perception) for public transport passengers. In short, the P-REACT project is aimed to design and develop a low-cost surveillance platform able to automatically detect petty crimes and supporting the prosecution of criminals.

The solution will encompass intelligent video and audio sensors to detect petty crime incidents, a cloud based monitoring, alert detection and storage platform. The system will be tested in Bologna at the beginning of 2016: low-cost intelligent sensors (image and audio) will be installed in transport-relevant locations, and

Alarm buttons allow codified communications to be made with an operation centre which can contact the police if necessary. A GPS device provides its exact position



these sensors will be connected to a cloud-based Video Content Management System to process the data. An incident detected by sensors will initiate a workflow including alerting relevant security personnel, or the police, with video and intelligence information, increasing their ability to respond quickly and appropriately. Video and audio data will be stored and kept as evidence for possible future conviction purposes, in compliance with the privacy and ethics regulations at European and Member States level. Further information is available at <http://p-react.eu/>

TAXI SECURITY

The solution proposed by P-REACT has met the keen interest of one of the main taxi associations in Bologna, opening up possibilities for

a concrete exploitation. As directly reported by the taxi drivers, most frequent crimes affecting taxi service are mainly related to driver safety (i.e., robberies and refusal to pay), and they happen frequently outside the vehicle.

As of today, an emergency button is positioned within each taxi: once the driver activates it, a line of communication is opened with the operation center, and a codified conversation can start. If necessary, the operation center contacts the police through a direct channel. A GPS device provides the operation center with the exact position of the taxi as soon as the driver activates the alarm button.

Some taxi drivers have independently installed a video camera on their vehicle, essentially as a preventative measure, but this system

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has proved to not be very reliable – particularly for criminal prosecution. Given the important role played by taxis in offering a public transport service in Bologna, particularly supporting the bus service, a test of the P-REACT platform is planned at a taxi station where vandalism will be simulated to verify the systems' effectiveness.

PROTECT AND SURVIVE

SRM is also involved as the Italian partner in the EUSTO (European Surface Transport Operators Forum) project, funded by the European Union under the "Prevention, Preparedness and Consequence Management of Terrorism and other Security-related risks Programme [CIPS 2013]" of DG Home Affairs.

The purpose of EUSTO is the coordination of national and EU-wide

programmes and policies in pursuit of the objectives of Directive 114/2208, related to the protection of critical infrastructures for surface transport. Due to the interdependencies, connections, and inter-linkages between the different surface transport infrastructures, their effective protection needs the promotion of a stronger cooperation between all the actors involved, such as, owners of infrastructures, operators of transport services, public authorities in charge for security of strategic infrastructures and researchers. EUSTO will create a network between them, as an ideal platform for discussion and exchange of ideas. This way, the mutual knowledge of the Member States' security capabilities specific to terrorist crises will be increased, in order to enhance preparedness and response capabilities in case of

terrorist attacks requiring mutual assistance at EU level. Further information is available at www.eusto.eu/

Despite all this, there is actually still a long way to go before the EU Directive is fully implemented. And this is true even more in Italy, where the national legislation should be completed, a complete strategy should be developed, critical infrastructures should be identified in the national territory, and appropriate initiatives for protection of critical infrastructures should be supported.

The city of Bologna is located in a strategic position in the middle of Italy, it is a primary junction for the road and rail network at national and even European level, and therefore a number of critical infrastructures are placed in Bologna. The effort put by SRM in the project EUSTO is mainly finalized to raise awareness and expertise of public and private subjects involved at local and national level in the protection of infrastructures for transport, giving advantage also by best practices implemented over the Europe, this way contributing to the improving of level of security of the whole city's transport systems. 🌐

Bologna Centrale railway station, the fifth busiest station in Italy in terms of passenger movements – about 58m per year



FYI

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