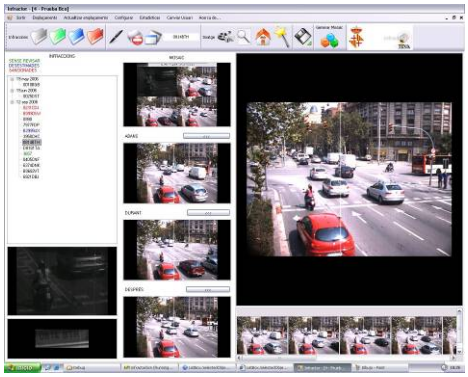
BP3: Targeted Enforcement

Reference: BP3 010	Title of Project:	**Red Light Jumper Cameras, Barcelona**
Version: 1	**Website:**	(Website not available)
Brief Description of Project:	 Barcelona Municipality has trialled different camera systems with a view to enforcing red-light jumping. Accidents resulting from this violation often have fatal consequences when a PTW is involved in the collision. The system that has been most extensively trialled has artificial intelligence to track objects – hence avoiding the need for loop detectors (avoiding costly installation & maintenance). During 4 months, at the two sites of Roger de Lluiria and Diagonal, the new system was also found to work better at night than the previous system – facilitating 24-hour surveillance. The software algorithms can also be configured to detecting and register illegal turning movements; these tests were successfully realized at junctions on Marina and Gran Via streets. 10 cameras were installed at 30 conflictive signal-controlled crossings of the city. The sites were selected via a Risk Zones Application that links accident data with a geographic database that is used by a team of police involved in preventative and remedial actions (see proposal for Best Practice in BP4).	

	Each of the 10 cameras automatically detects the infraction, registers the video sequence and identifies the vehicle's registration number; the data is sent to the control centre (via 3G or via Wi-Fi & TCP/IP) where it is analysed by the police agent who validates the data and, if appropriate, issues the penalty notice and sanction; this is communicated to the vehicle owner and a web application deals with appeals. 
Monitoring Data:	The performance of the cameras in reducing PTW casualties will be monitored using the RiZA system.  The results recorded so far are shown below.
Results:	Overall a reduction of 22% in collisions has been registered at junctions with cameras. The cameras have recorded 2.200 red light violations, from which 66% were cars, 12% PTW and 9% commercial and taxi vehicles. Additional cameras will be installed to extend this successful trial as part of the eSUM demonstration (WP4). The aim is to collect more comprehensive data from the Risk Zones Application, and to include estimates of what would have happened without the system operating.
Key Effective Conclusions:	Although at present still in the trial stage, this system appears to address the most common urban PTW collision type identified by detailed studies such as MAIDS. A measurable reduction in collisions at the camera sites has already been recorded. The sites for the cameras are identified and monitored using casualty data and the RiZA system, providing effective feedback on performance.

Projects for Comparison:	Paris Bus Lane cameras.
Justification:	This system appears to address a key urban PTW collision type. Further monitoring of performance is planned but even at this early stage casualty reduction appears to have been demonstrated. There are currently problems with PTW detection at some sites and specific monitoring is required.