

## Traffic visualisation system in Burgos/Spain

Qualitative improvements in traffic management have been achieved through the installation and operation of information systems operated from an upgraded traffic control centre and the communication of that information in real time to the general public. The new system covers a much larger area than the existing one.



### Objectives / Innovative Aspects

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- Improve and upgrade traffic information systems.
- Provide information to the public on the current state of the traffic.

#### Innovative Aspects

- Optimum visualization of traffic flows and traffic control systems integrated into real-time information systems.

### The Measure

Traffic control is performed using a synoptic panel system composed of various screens in a control room and various video cameras in the most strategic streets for monitoring traffic. Traffic lights have been regulated from the control room for over ten years, but the system is unable to respond to current needs due to rapid expansion of the city towards new peripheral zones. As a consequence, traffic monitoring and control is limited to the urban centre and can not monitor current traffic flows, new avenues and vehicles travelling on the principal access roads. Upgraded traffic monitoring and control facilities are also required because of the new ring-roads (see measure 6.2) which will also impact on the traffic-management in the city.

#### The CIVITAS-CARAVEL project

The principal action will be to optimise video-surveillance of traffic flows. Therefore a new system will be introduced.

The activities to be developed are linked to demonstration area number 2 "The city along the Arlanzón river and residential neighbourhoods" in the City of Burgos.

A customized traffic-control system will be developed and implemented using image processing display systems that will allow the traffic control centre to help in the management, supervision and control of traffic. The traffic control centre will visualise traffic flows using high-resolution graphic images obtained via local access networks using projection technology and graphic-controllers.

New cameras will be added to the visualisation systems in the control room which will provide clear images of street parking and will support the activities defined under measure 6.5 . Furthermore, the traffic information system will include the integration of cleaner and more sustainable urban transport defined in measure 12.2, ensuring that the public is kept informed of all transport options as they arise.

#### Innovation and Dissemination Activities

The effectiveness of the technological options contained in this measure and the evaluation of their impact will be disseminated through local, national and European forums.

#### Training activities

- Training workshops for police officers and others.
- Operational training for system operators.

#### Evaluation

Evaluation will consist of monitoring throughout the life of the project.

#### Implementation Status

Finalisation of the administrative procedures and start of construction of the traffic control centre.

The following steps are underway:

#### Innovation activities

Areas under video-surveillance will feed traffic information to the control centre where a plasma technology screen will simultaneously display the state of the traffic. The technical study will examine ways of integrating information captured on camera and supplying it in real time to the control centre and then on to the electronic displays located around the city.

#### Demonstration activities

Upgrading and modernisation of the traffic control centre, display panels, and monitoring and traffic control systems. The aim is to develop a synoptic panel that will transmit real-time traffic information in order to monitor new areas and manage new road transport initiatives in the city.

- Purchase of equipment and material for the traffic control room.
- Execution of the works needed to reform the present installations.

#### Results

The main results obtained are:

- Less congestion (less than 10% at the end of the project) thanks to the advises given.
- Awareness of more than 87% of the citizens of the existence of the traffic control centre thanks to the good work: available data for citizens and good control of the bollards system (access control zone).

Lots of visits in 2006: 196, 2007: 590 and 2008 to date: 714, mainly students, children and neighborhood associations.  
Good transference of results from Stuttgart and other cities.

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