Taming traffic with eyes in the sky

Innovative transport telematics systems for traffic management and traveller support can make urban passenger transport faster, more reliable and more efficient and as such more passenger friendly.

In the field of transport telematics CIVITAS cities have worked on real-time road-user information; ITS-based enhancement of public transport; and ITS for traffic monitoring, management and enforcement. This highlight focuses on the last of these.

Intelligent transport systems (ITS) include traffic and congestion monitoring and management systems, with an integration of traffic control centres. Access control and route guidance systems offer a range of benefits for a city. Goods delivery companies often introduce ITS because they can optimise trips with the combination of global positioning system (GPS) technologies and existing logistics programmes.

Such traffic management and control systems have significant efficiency benefits for both public and private transport. Therefore they make an effective contribution to the sustainable city goals of CIVITAS.

For this reason, the CIVITAS Initiative has realised 29 ITS measures for traffic monitoring, management and enforcement in 18 cities since 2002. This highlight features some of the most successful and eye-catching among these to inspire other European cities.

Traffic control systems

Many CIVITAS cities have introduced traffic control systems to optimise traffic flows. Aalborg, Denmark for example, created congestion maps that make it possible to monitor congestion, analyse correlations between safety and congestion and add expected travel times and environmental indicators that could influence the choice of route. The city of Gdansk, Poland, took the first steps towards upgrading its intelligent transport system with a central control room to anticipate traffic jams.

Other inspiring cities are Bologna (Italy); Burgos (Spain); Funchal (Portugal); Genova (Italy); Graz (Austria); Monza (Italy); Preston (United Kingdom); Skopje (Macedonia); Stockholm (Sweden); Stuttgart (Germany); Tallinn (Estonia); and Utrecht (Netherlands).
Access control

Four CIVITAS cities installed ITS technologies to control access to their city centres and bus lanes and to automate traffic law enforcement. **Bologna**, Italy, for instance, tackled the problem of illegal on-street parking with an automatic enforcement system using mobile cameras. Data collected showed a 55 percent decrease in parking on bus lanes and a 38 percent decrease in illegal on-street parking in other areas.

Other inspiring cities are Funchal (Portugal); Genova (Italy); Krakow (Poland); and Venice (Italy).

Route guidance systems

GPS navigation for cars is widely used. Pedestrians and cyclists, however, could benefit from route guidance to find their way through the city, too. The cities of **Ghent**, Belgium, and **Funchal**, Portugal, implemented such GPS-based route guidance systems for mobile devices. In Ghent the application recommends the fastest as well as safest route for cyclists. The latter was assessed through a rigorous safety audit. The mobile guidance system of Funchal helps citizens and tourists plot their walking routes, guides them to attractions and provides multimedia information about each point of interest.

Route planning for freight

ITS is used for clean route planning for freight in order to improve air quality and counter noise pollution and damage to buildings. **Utrecht**, Netherlands, assessed the feasibility of guiding road freight traffic along routes that are most appropriate at a particular time according to real-time air quality and weather information. **Bath**, United Kingdom, and **Tallinn**, Estonia, improved freight flows in their city centres by installing automatic number plate recognition cameras, freight traffic corridors and variable traffic signs to guide freight vehicles.

Learn more at [www.civitas.eu/telematics/ITS](http://www.civitas.eu/telematics/ITS)