CONGESTION CHARGING — SWEDEN



Q-Free supplied the Automatic License Plate Recognition (ALPR) systems which allow the cities of Stockholm and Gothenburg to operate congestion tax schemes.

Stockholm's population is growing by more than 20,000 new inhabitants every year. The city's location on a series of islands, as well as the need to protect heritage and quality of life, meant that increasing road capacity was not an option. The city therefore decided to deploy a congestion tax charging system.

The high accuracy of local vehicle registers meant that a solution based on Automatic License Plate Recognition (ALPR) could be used for both charging and enforcement. Q-Free supplied the ALPR systems for the Stockholm solution, which went live at the beginning of 2006.

The results achieved in Stockholm include traffic reductions of 15-20 percent and travel times reduced by 50 per cent. Atmospheric pollution has also been reduced and the overall accuracy of the system has made a major contribution to increasing public support for congestion charging in the Swedish capital.

Like many other cities around the world, Gothenburg was faced with the need to address the environmental and quality of life issues caused by increasing congestion. Q-Free supplied the city with a world first – a single-gantry Road User Charging (RUC) solution which carries out all the tasks of a more traditional multiple-gantry solution to a high degree of accuracy but with a much smaller footprint.

The Q-Free single gantry can mount a variety of different technologies according to customers' needs. Its Q-Free Intrada software-based ALPR system is capable of reading both front and rear license plates to a high level of accuracy in all operating conditions. Other technologies, such as Dedicated Short-Range Communication (DSRC)-based tag readers and laser-based vehicle classification, can also be integrated.

The Q-Free single-gantry solution for RUC in Gothenburg uses ALPR as the basis for both charging and enforcement – a pragmatic, cost-efficient solution which was able to take advantage of the accuracy of Sweden's local and national vehicle registers.

