

Hanwha Techwin provides solution to ensure smooth traffic on Italy's Pedemontana Veneta highway



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– Gerando Capezzuto, SIS scpa

◆ Challenge

A major commercial region of Italy needed to ensure smooth movement of traffic between the cities of Vicenza and Treviso after widespread growth and urbanization in the 1970s, followed by the opening of the European Union in the 1990s, spurred ever larger transit volumes in the area.

Authorities wanted to prevent any disruption to movement, while tracking the movement and speed of cars. To address these traffic challenges, work started in 2011 on what is now the Pedemontana Veneta, or “SPV,” toll highway.

Geography presented some complications to this, as the region features mountains, valleys and rivers. The highway therefore required several bridges, including one that stretches 430 meters in length, as well as two natural tunnels and 33 artificial tunnels, the longest of which runs to six kilometers.

The area therefore needed effective video technology that would keep traffic flowing while providing operators with the information they need to effectively manage the SPV.

◆ Solution

Operators turned to AI-powered video technology from **Hanwha Techwin** and Sprinx.

Italian distributor SIRIUS - COMPASS and systems integrators SIS scpa and Pagano Spa worked together to install 600 cameras along the route of the SPV, calling on **Hanwha Techwin**'s high-resolution Wisenet cameras with day and night ICR technology and a wide dynamic range to deliver high-quality images regardless of light levels. The installation also features **Hanwha Techwin** 32x zoom PTZ dome cameras, all managed through a Wisenet WAVE video management system.

It is also vital for operators to have access to data on traffic volumes and average speeds. The cameras are integrated with analytics expert Sprinx's 'traffix.ai' solution, which uses deep learning and image processing to deliver a wide range of server-based analytic functions that increase safety for road users and provide detailed insight into how the highway is being used.

These functions include automatically detecting traffic incidents in real-time and immediately alerting the highway's operators to initiate an emergency response. Whether it is a stalled vehicle in one of the highway's lanes, or a car traveling the wrong way down the highway, the system can reliably detect events that could cause traffic congestion or accidents. The solution can also detect smoke in any of the highway's many tunnels and alert operators to the possibility of a traffic incident or a fire.

The system allows operators to undertake vehicle counting, measure traffic density and ascertain the average speed of vehicles along the route. Fully integrated with the Wisent Wave video management system, all this information is delivered via an intuitive web user interface.

◆ Result

The AI-powered video technology has helped to deliver greater mobility for the area's 4.9 million inhabitants and the 500,000 businesses that call the region home. The surveillance solutions have led to greater safety and ease of use for motorists while providing operators with insight into the most effective uses of the SPV.

"Together, **Hanwha Techwin** and Sprinx make the Pedemontana Veneta highway safer for road users and help keep traffic flowing," says Gerando Capezzuto of SIS scpa.

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