

## Traffic Analysis and Video Sensor Deployment Project

The Municipality of Trento is implementing an advanced traffic analysis project to enhance road management and safety. This initiative involves deploying video sensors on municipal roads and updating existing systems, expanding the data transmission network, and a modern centralized data and video management system (VMS). The collected data will be shared with regional partners to foster collaborative traffic solutions.

### Key Achievements

To meet these objectives, Trento has made significant progress in several areas:

#### 1. Centralized Platform Acquisition

- Extensive analysis identified the most suitable VMS platform for Trento.
- The procurement process for the VMS platform is in progress.
- Acquired and installed new client PCs for users to ensure compatibility with the new VMS.
- Installed a new storage system and network switches to support data and video storage needs.



A new client PC installed on site

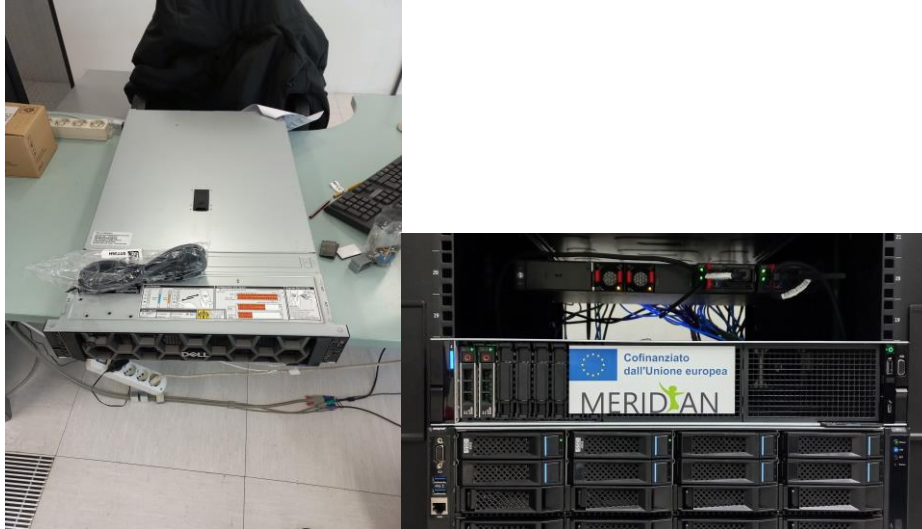


The new storage system

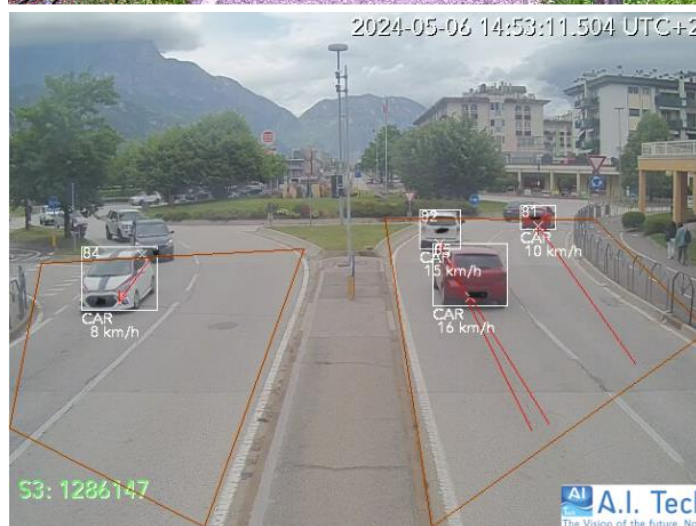
The new switches

## 2. Video analysis software and hardware Installation

- New software and hardware have been installed to analyze video data.
- The software will work with new video cameras to count and classify vehicles, detect congestion, and count pedestrians and cyclists.



The new server hosting the video analysis software



Example of result of vehicle classifications performed by the video analysis software

### 3. Deployment of 98 Video Cameras

- Acquisition of 98 video cameras: 88 for motorized traffic and 10 for pedestrian and cycle traffic.
- These cameras will replace old analog ones and cover new areas needing traffic data.
- The acquisition process for the cameras is ongoing.

### 4. Upgrade of Legacy Traffic Monitoring Stations

- Revamped hardware and software of existing loop traffic monitoring stations.
- This upgrade will improve data collection, distribution, and sharing for nearly 300 lanes.



Interior of a legacy traffic data collection station cabinet



Vehicle counting and classification loops on the road



A legacy traffic data collection station cabinet

### Upcoming Activities

In the coming weeks, we plan to:

- Complete tests and launch the new storage system.
- Begin deploying the new VMS.
- Install new video sensors upon the completion of the procurement process.
- Initiate civil works to extend the municipal fiber optic network to the new monitoring sites.

The project aims to complete the VMS deployment by the end of 2024 with the installation of video sensors and fiber optic network expansion targeted for completion in 2025.