

“The Sii AT cameras with fire detection analytics pick up hotspots and alert the fire department immediately, allowing us to prevent fires from spreading.”

*Geir Brean, Assisting Fire Brigade Officer Røros*

## Røros, a UNESCO World Heritage Site in Norway, was looking for an effective fire detection system, to protect over 80 historic houses that are at immediate risk of fire.

Founded in 1644, the city covers over 3.3 square-kilometers and is home to over 3,700 inhabitants. The entire town center still retains the authentic historic wooden houses, protected under the UNESCO World Heritage list since 1980. As one of the oldest towns of wooden buildings in Europe, its leaders are always searching for better fire detection solutions.

### SCENARIO

Røros and many other historic cities in Europe, have a high concentration of wooden structures. A fire in the center of the city would be catastrophic, as all the wooden buildings are connected to each other, creating the perfect conditions for any fire to spread quickly.

In 2009, our security and surveillance partner Elotec delivered and installed a complete wireless smoke detector system, linked directly to the Røros fire department. While this complex system has saved the town from the potential devastation of several fires, there was a need for a 24/7 surveillance system that could cover a wide area, provide early fire detection and operate under extreme weather conditions (as cold as -40°C). Besides precise detection and assessment, they were looking for a cost-effective system, with a very low rate of false alarms. They had been experiencing long-term problems with reflective surfaces triggering false alarms, that ultimately cost the fire department a significant amount of time, money, and other resources.



*“We are successfully monitoring the whole town of Røros with a fire detection system that includes 7 Sii AT cameras.”*

*Geir Brean, Assisting Fire Brigade Officer, Røros*



*Sii AT 24/7 outdoor thermal imaging cameras are configurable with several options. These include unique signal processing algorithms that provide enhanced contrast for Video Analytics and Fire Detection. The camera provides crisp, clear thermal images in extreme weather and impaired visual conditions. It features a wide range of thermal engine and lens options using state-of-the-art uncooled thermal camera technology.*



## Thermal cameras with fire analytics help detect and prevent fires

**Vumii®**, unlike other producers of high-end fire detection systems, has a long history of working closely with customers to find workable customized solutions.

### SOLUTION

To answer this request Elotec partnered with Vumii®, who suggested using the Sii AT to deliver a thermal camera based fire detection system that would allow early prevention and trigger alerts to the fire department. “As a security and surveillance solution provider, we are always looking to supply the best products and systems for fire detection and perimeter security. We wanted a long-term partner who could provide the best product for fire detection in the market” said Kristian Kleven, Product Manager and co-owner of Elotec.

The Sii AT is ideal for monitoring sensitive sites in a variety of situations with impaired visual conditions. Unlike other fire detection thermal cameras, the Sii AT offers true flame detection providing a higher level of protection. The ruggedized and compact design allows it to withstand the harsh environmental conditions in Røros, while the fire detection and risk assessment software can detect and clearly visualize hotspots which could turn into devastating fires if left to develop. The project initially included only two thermal cameras, but after positive initial results, it was decided to increase the number to a total of seven Sii AT thermal fire detection cameras.

Vumii®, in cooperation with our integration partner, ensured a successful installation and implementation of all seven cameras overlooking the town. To confirm the effectiveness of the system, a test was conducted with the fire department where controlled fires were set, at a distance of 360 meters, and the Sii AT cameras’ functionality was observed.

### SUCCESS

The Sii AT fire detection analytics were able to detect all of the fires. Alarms were triggered and delivered via the Sii AT to the software and integrated into the Elotec EN54 approved fire panel, alerting the operators in the control room within moments of the fires being set. The Røros fire department was very impressed with the results, and has adopted the system as an integral part of their fire management program.

Several months after installation, the integrated Sii AT thermal fire detection system in Røros has continued to provide a fast and effective solution for detecting and assessing potential and real fire hazards, helping to ensure the continued safety of the historic town and its inhabitants.