

Press release

IQ FireWatch – 20 years of protecting people, nature, and property

In 2003, the first automated early wildfire detection system was put into service in Brandenburg, Germany. Since then, IQ FireWatch has become the backbone of early wildfire detection on four continents across the globe – Innovation Made in Germany.

Berlin, March 2nd, 2023

Against the backdrop of climate change, wildfires are a global threat whose severity continues to grow year by year. Longer dry and hot spells alongside reduced forest biodiversity are among the factors that make it impossible to completely prevent wildfires. Faced with this, speed and precision are of the essence in tackling them. With the wildfire season having just started in Germany, the country is bracing itself for just such an eventuality.

Thankfully, human spotters perched on watchtowers and enduring the toughest of conditions in order to detect fires through binoculars are a thing of the past. For more than 20 years now, this task has been entrusted to IQ FireWatch's highly specialized automated early wildfire detection system. It is the only system that has been rolled out for long-term use in Germany, where its technology is crucial to protecting against forest fires. Having initially been implemented in the high-risk area of Brandenburg, the system is now also in use in many other parts of Germany where it safeguards people, property, and nature. Its relevance will undoubtedly grow as the severity of climate change makes wildfire prevention measures a necessity in other parts of the world.

The multi-patented IQ FireWatch system detects smoke and smoke-like events by using a multispectral sensor unit that rotates 360 degrees every 4-6 minutes and captures images from preset positions. These images are processed in real time by sophisticated software that combines feature-based algorithms and artificial intelligence. If smoke is detected, the wildfire control center is rapidly sent an alert that is verified by an operator, following which the relevant fire control centers are notified. The synergy of hardware and software allows for a surveillance radius of 20 km under almost all weather conditions, and this figure increases to 50 km or more under optimal conditions. In other words, a single sensor can protect an area equivalent to around 175,000 football fields.

Pinpointing the source of a fire as early and as accurately as possible allows fire brigades to respond more effectively and significantly increases the chances of putting out the fire before it spreads out of control. This is precisely the task that IQ FireWatch has been performing for the past 20 years.

"We will continue to put our best effort and know-how into further developing this very important high-tech system to ensure that it will continue to serve as the technological backbone of automated early forest fire detection and protect the spaces we live and work in," says CEO Dr. Kurt Winter.



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IQ Technologies for Earth and Space GmbH

[IQ Technologies for Earth and Space GmbH](#) (formerly IQ wireless GmbH), headquartered in Berlin, was established over 20 years ago and currently consists of three innovative business divisions: [IQ FireWatch](#), [IQ spacecom](#), and [IQ wireless](#). IQ FireWatch is an early terrestrial fire detection system for forests, industrial plants, and populated areas near forests. IQ spacecom is a provider of high-performance radio communication solutions that enable flexible and highly efficient broadband data transmission via small satellites such as CubeSats. IQ wireless employs expertise accumulated over many years to effectively plan and install radio transmission technology. With currently more than 45 employees, all three divisions work tirelessly on the development and optimization of these products in order to meet the needs of customers and offer solutions for the complex challenges of the future. The technological innovations of IQ Technologies for Earth and Space GmbH are researched, developed, manufactured, and tested at its headquarters in Berlin, Germany.