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## Greece: 22 fire-prevention monitoring sites

The climate crisis plays a key role in the increasing spread of forest fires. Nature and human lives are increasingly at risk, which is why targeted action aimed at automatic early detection of fires is indispensable, so that we can act quickly and reduce damage as much as possible.

In 2025, **47,753 hectares** of land and forests in Greece have been burnt to date. These disasters are not isolated events, but part of a cycle that has transformed the very fabric of everyday life. In a country where forests are intertwined with local identity and livelihoods, destroying landscapes seems to mean erasing memory itself.

In this context, CAE, in collaboration with Cardel, a partner for the Greek market, was asked to work for a major consortium of local companies to provide an automatic early fire detection system. The project is funded by the European Union - NextGeneration EU within the framework of the National Recovery and Resilience Plan "Greece 2.0", for the Ministry of Climate Crisis





and Civil Protection.

The contract involves supplying and installing an Integrated Information System for fire detection and fire-prevention at 22 sites: 1 in the Mount Athos area and 21 in the areas of the most important archaeological sites, historical monuments of Greek cultural heritage and areas of special natural beauty, including the Acropolis, Knossos and Olympia.

Fulfilling the contract will contribute to protecting the environment and increasing social and economic resilience. How? By supporting and enhancing the operational capabilities of fire-fighters at the source of a fire outbreak, specifically through early detection, warning, ignition probability indices, and flame front propagation modelling. This system will allow the authorities to be prepared and to respond immediately to natural disasters. The contract covers:

- supply and installation of automatic fire de-

tection stations based on thermal imaging cameras;

- supply and installation of stations to measure the main meteorological parameters needed to assess the probability of a fire occurring and, if it does occur, to predict the direction of the propagation front;
- high-capacity data transmission system from the detection stations to the control centre;
- Integrated Information System with special algorithms to detect fires and limit false alarms. In addition, the system can display and manage data and alarms;
- specialised modelling software to: generate fire risk maps based on the vegetation and environmental conditions; predict the flame front propagation;
- training services for personnel and those in charge of fire detection and fire-fighting systems;

- maintenance for three years with immediate technical support.

The system will be installed in the coordination centre of the Ministry for Climate Crisis and Civil Protection, and in the fire department headquarters, and will be of national relevance as it will form the basic infrastructure to support fire prevention.

Going into detail, the system will be able to:

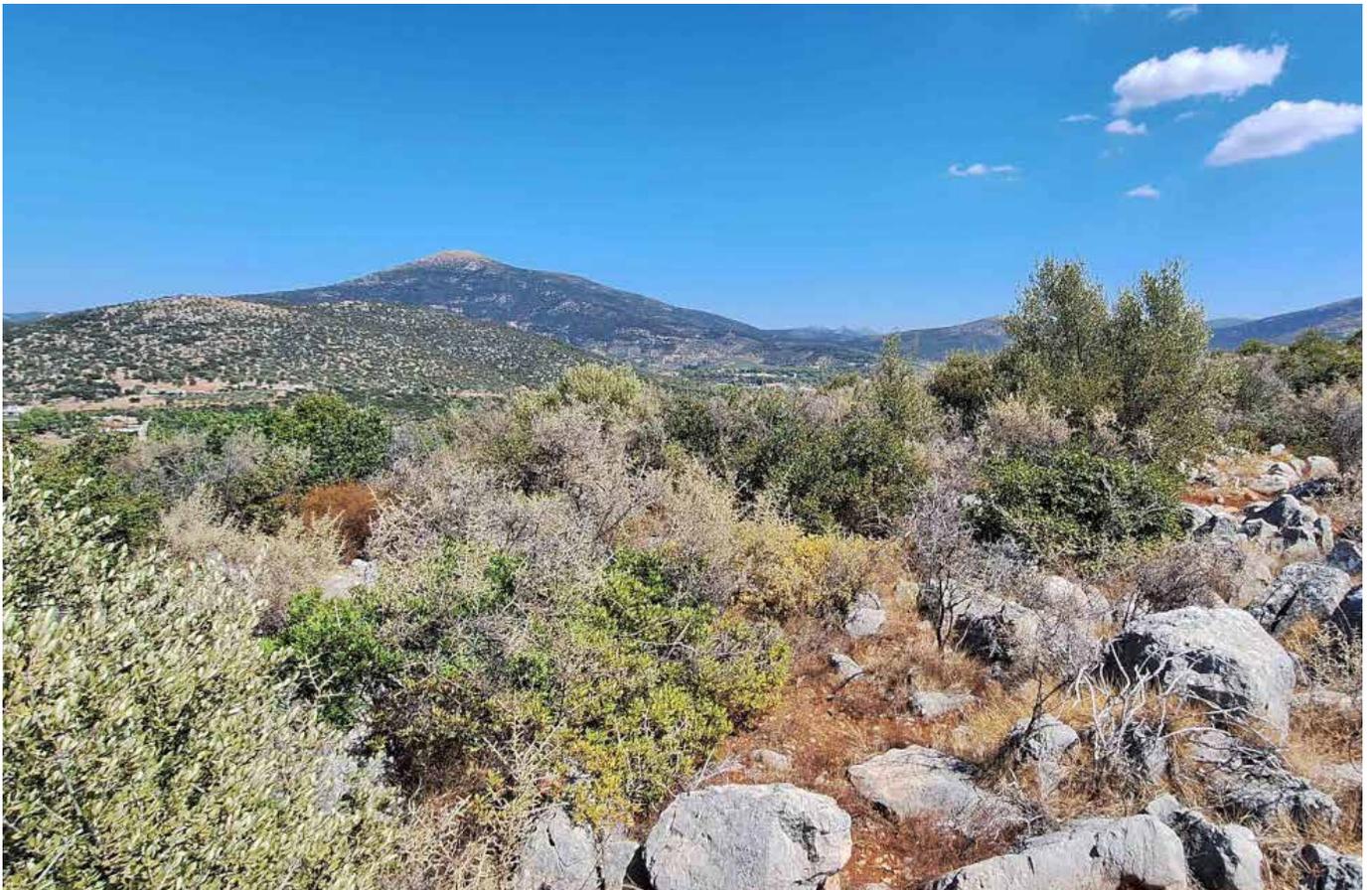
- **manage and control fire remotely up to great distances**, even at night, thanks to thermal imaging cameras;
- **detect** possible fire outbreaks **in real time**;
- **give early warnings** to those involved;
- **reduce intervention time** and the consequent damage associated with fire development;

- **provide support information** to fire-fighters so that they can assess the evolution of the fire and the surrounding areas potentially affected;

- issue **safety measures for the population**.

*"This project fills us with pride," says Guido Bernardi, Chairman of CAE, "not only because it gives us the opportunity to fully realise our corporate mission: improve the defence of important archaeological sites and unique natural scenery, but also because this international collaboration, the first one of such importance in a European country, is a recognition of the skills and technologies we have invested in over the last few years."*

To learn more about how the system typically works, watch the video of what has already been implemented in Apulia: [click here](#). ■



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## Our energy efficiency improvement project

Sustainability is not an ancillary goal for CAE, but a concrete responsibility to the environment, local areas and communities for which we work every day.

Our operational vision is also underpinned by a structured environmental management process, as evidenced by the **ISO 14001 certification**, which confirms our systematic approach to continuous improvement in environmental performance. This certification is not just a formal achievement, but a concrete guide to our strategic choices. It is also thanks to the principles of prevention, optimisation of resources and environmental impact reduction set out in the standard that we have directed and planned investments in the recent energy efficiency improvement project. This was a structural in-

tervention that also testifies to our commitment to contributing to the goals of Agenda 2030, especially Goal 7: Affordable and clean energy and 9: Industry, innovation and infrastructure.

The entire project was guided by a clear vision: to reduce energy consumption, optimize resources and adopt more sustainable, high-performance technologies.

Specifically, what has been done?

- **Investments in advanced technologies for heating and cooling management**, which alone contribute to an estimated annual saving of **99,600 kWh of electricity** and **5,900 Smc of natural gas**, with an expected emission reduction of 57 tonnes of CO<sub>2</sub>;
- **Installation of a new generation photovoltaic**



**system** with a capacity of 140 kW, capable of converting solar energy into a stable, clean and renewable resource. The installed system is designed to cover most of the company's energy needs;

- **Replacement of all lighting points with low energy LED systems**, accompanied by a strategic review of their layout. More efficient, targeted and comfortable lighting will reduce waste and improve the quality of operating areas from the end of January 2026.

These actions were implemented with a significant investment by CAE, and represent a fundamental part of our journey towards an increasingly responsible, innovative and sustainable business model. A commitment that is rooted in our mission: *to contribute to creating a world that is more prepared for the risks that communities face in relation to natural events, thanks to our unique mix of expertise, innovation and commitment.*

Being a leader in our sector not only means developing advanced and interoperable solutions, but



doing so with a constant eye on protecting the local area and the environment.

The recently completed energy efficiency improvement project is a further step towards a business that combines innovation, competitiveness and sustainability. We will continue to invest in this vision, because the future we envision is safer, more efficient and more environmentally friendly. ■

**Giorgio Bernardi**  
General Manager of CAE S.p.A.



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## Landslide at CATASCO: monitoring is enhanced



The **Comunità Montana Valli del Lario e del Cesio** has commissioned **CAE** to install a new **monitoring system at the Catasco landslide site in the municipality of Garzeno (CO)**, in accordance with Regional Council Resolution XII/2635 “Regional Plan for the execution of maintenance work on watercourses, the improvement of unstable slopes, and the implementation of monitoring systems in mountain community areas”.

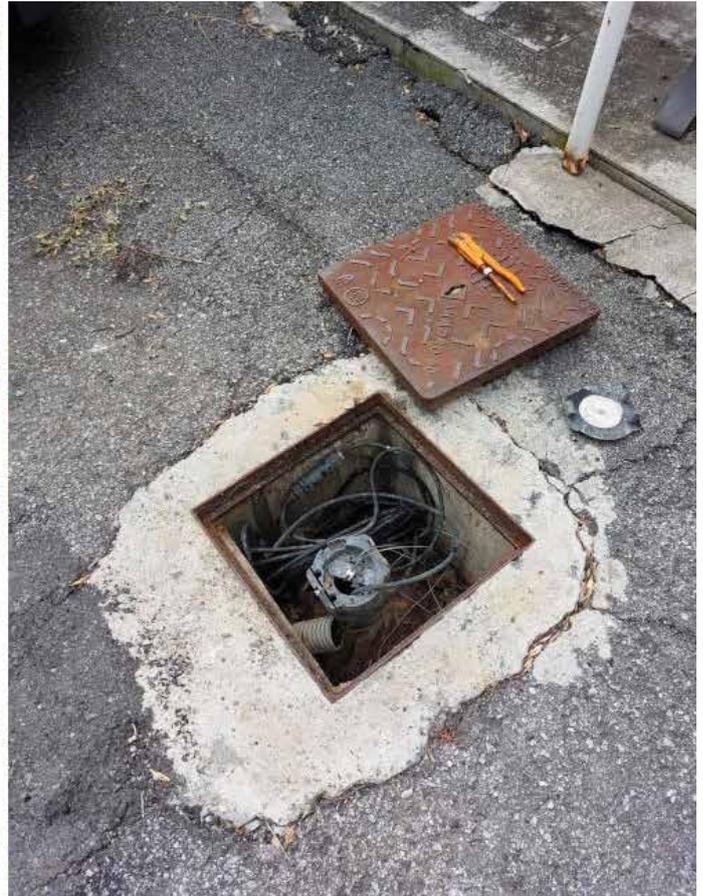
The area involved has been affected by **landslides** in the past, and a series of **deep instabilities** can still be observed, which has resulted in damage to buildings and especially to masonry and road works. It is **evolving slowly but continuously**, and geotechnical monitoring has identified sliding surfaces up to tens of metres below ground level.

**Garzeno and Catasco’s geotechnical monitoring**

system belongs to the instability subject to permanent monitoring active **24 hours** a day for civil protection purposes, under the management of the **Regional Centre for Landslide Monitoring and Instability (CRMFD) of ARPA Lombardy**.

An initial system was installed from October 2016, then reinforced in 2017 as part of the ARMOGEO Project, and consisted of the following instrumentation:

- 23 topographic datum points and 1 automatic total station;
- 2 inclinometer tubes equipped with TDR cable (IN1 and IN2);
- 8 automatic biaxial probes distributed in the inclinometer tubes;
- 1 automatic piezometer;
- 2 data collection and transmission stations with



GPRS and satellite technology;

- 1 swivelling camera installed on the shelter of the automatic total station;
- 2 manual inclinometer tubes.

The observation network is supplemented by a **meteorological station** that is part of the network managed by ARPA Lombardia, and is located at an altitude of 581m along the road from Garzeno to Catasco. The station is equipped with a rain gauge,

thermometer and air humidity gauge.

The site concerned is affected by **slow-moving instabilities** of the order of a few centimetres per year, which are constantly and progressively changing. Over time, excessive deformation of the ground, and consequently of the tubes, no longer allowed the instrumentation to be positioned correctly after each maintenance, and measurements were stopped. ■

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## Campania Region: CAE confirmed for maintenance service



CAE was awarded the contract to provide the services needed for routine and extraordinary upkeep on the trust network for real-time hydrometric-meteorological-rainwater monitoring used for civil protection purposes, and the related data transmission, acquisition and processing system in operation at the Multi-hazard Functional Centre for Civil Protection (UOD 02) of the General Directorate for Public Works and Civil Protection of the Campania Regional Government (D.G. 50.18).

The service includes a set of services and actions aimed at maintaining an optimal efficiency level, both in terms of the data collected and their transmission and management, and in any case such as to ensure that all the components (peripheral stations, sensors, transmission systems, control centre, terminal stations, network infrastructures, hw/sw equipment, etc.) of the real-time hydrometric-meteorological-rainwater monitoring network are in

optimal working condition, with data transmission through the existing tropospheric radio links of the Campania Region Civil Protection's Decentralised Functional Centre.

The system as a whole consists of **over 250** separate pieces of equipment, including automatic stations, radio repeaters and control centre equipment. The main purpose of the service is to ensure maximum real-time database availability in the control centre, where they are used to manage the operational phases established in the current regional warning system for hydrogeological and hydraulic risk for civil protection purposes.

**Maintenance** and technological upgrades, **the last one carried out in record time in 2022**, ensure that this trust network is equipped with state-of-the-art technology such as the CAEtech **Compact Plus** datalogger and the **RÆVO UHF radio modem**.

CAE is committed to continuing to ensure **maxi-**



**imum reliability and operational continuity of the network.** Thanks to its experience and **innovation-oriented** approach, the company has proposed the introduction of **advanced tools for intelligent network management** for targeted actions to maintain high system performance.

Aware also of the importance of data and commu-

nication security, CAE will adopt **advanced cybersecurity solutions** to protect its customers.

As always, the aim is to provide a service that responds in a concrete and timely manner to the needs of administrations, in order to improve performance, optimize processes and ensure sustainable and future-oriented management. ■

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## Campania agro-meteorological network: maintenance at CAE



CAE was awarded the tender for **maintenance**, operation and maintenance service on the equipment at the **agro-meteorological centre** and its measurement **network**.

The network is made up of **37 stations** distributed throughout the region and the data collected is used to support the decisions of **farms** relating to phytosanitary defence of agricultural crops, orienting them towards environmentally sustainable production methods with low environmental impact, while also increasing their resilience to climate change.

The existing network consists entirely of “non-CAE” technology, but the company’s excellent capabilities as a **system integrator** and service provider allowed it to win the tender, while the software

part will continue to enable the data acquisition system to be integrated with the regional portal, the Campania Region’s central hub that collects and interprets geospatial data. *“The investments the company has made in recent years to learn how to handle third-party technologies are proving decisive,”* says Chairman Guido Bernardi.

The required services are divided under the following two macro headings:

1. routine maintenance on the stations that make up the agro-meteorological network, and carrying out analysis work;
2. monitoring the agro-meteorological network to ensure it is operating correctly, with a view to correcting any technical or IT faults.

For more information on the network [click here](#). ■



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