Press Release

INDRA UPGRADES ITS FOREST FIRE DETECTION SYSTEM TO MAKE IT THE MOST PRECISE AND ADVANCED IN THE MARKET

- **Faedo is the first system capable of detecting fires located behind hills and other geographical features with a high degree of reliability and precision**
- **The solution monitors extensive areas of woodland, both night and day, allowing firefighters to quickly react to prevent emergency situations**
- **This type of technology reduces the number of fires by 40% and the average burned area by 30%**

Madrid, July 6, 2017. Indra has upgraded its Faedo forest fire detection system to make it the most precise and reliable system of its kind in the market and the only one capable of reliably and automatically detecting small fire sources without the need for a direct line of sight.

To achieve this, the company has integrated its visual smoke detection and thermal detection capabilities into a single solution that not only measures the temperature of fire sources, but also determines whether there may be any behind a hill or other geographical feature.

Faedo detects small sources of fire both during the day and at night with only a small percentage of false alarms. The system is composed of a series of cameras, each one with a range of some 12 miles, mounted on surveillance towers that relay real-time information to a control center.

The control center's operator has a comprehensive view of everything that happens in the forest. The system issues alarms and shows the exact location of the fire on a 3D model of the area. The operator is also provided with the information necessary to plan the firefighting operation, including the best access route, the ideal location for firefighters, the closest water access points and the nearest towns that may be affected. The firefighters deployed to the area can use the system as a mobile response solution by establishing a connection to it via an internet browser.

Faedo's simulation tools also help the operator to analyze how the situation will develop in accordance with weather conditions. Once the fire is under control, the system will help identify the place where it started and its possible causes.

Year-round monitoring

The company presented these technological improvements and advances at the latest Spanish Forest Congress (7CFE), held by the Spanish Society of Forestry Sciences (SECF) in Plasencia. This event, which takes place every four years, presented the results of the most significant research undertaken in forestry sciences and techniques and its participants discussed and analyzed their most innovative ideas and proposals to improve forest management.

Within this framework, Indra engineers Pablo Fernández and Fernando Aller highlighted the capacity of the company's technology to monitor forests 24 hours a day and detect fire early enough to extinguish it before it can spread and become an emergency situation.

These experts stressed that "forest monitoring should be done throughout the entire year," given that official data disclosed by the Spanish Ministry of Agriculture and Fisheries, Food and Environment (MAPAMA) show that, contrary to popular belief, over the last decade the second largest number of fires per month was registered in March, just behind August. Moreover, a high percentage of arsonists set their fires from 9 pm to 2 am, when there is less monitoring and airborne firefighting systems cannot be deployed.

Indra's engineers assured that "systems based on visual and thermal cameras constitute the most extensively used automatic fire detection system in the world" and cited the case of Germany, where 175

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monitoring stations of this type have been deployed, contributing to a 40% reduction in the number of fires in the territories they cover and a 30% reduction in the average area burned.

This fire detection technology reduces losses caused by fires and protects populated areas. It also reduces the costs of extinguishing operations and improves the working conditions of monitoring crews, allowing them to supervise much more extensive areas.

About Indra

Indra is one of the main global consulting and technology companies and the technology partner for core business operations of its clients businesses throughout the world. It offers a comprehensive range of proprietary solutions and cutting edge services with a high added value in technology, which adds to a unique culture that is reliable, flexible and adaptable to its client's needs. Indra is a world leader in the development of comprehensive technological solutions in fields such as Defense & Security, Transport & Traffic, Energy & Industry, Telecommunications & Media, Financial Services and Public Administrations & Healthcare. Through its Minsait unit, it provides a response to the challenges of digital transformation. In 2016 it reported revenues of €2,709m, had a workforce of 34,000 professionals, a local presence in 46 countries, and sales operations in more than 140 countries.

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