## **Smart thinking**

FROM ITS HUMBLE BEGINNINGS AS A ROLLOVER MONITORING DEVICE, SMART-SENTINEL NOW OFFERS ADVANCED INTEGRATED TECHNOLOGY THAT ENABLES A VAST ARRAY OF GEOREFERENTIAL DATA TO BE ACCESSED FROM ANY LOCATION

The automotive industry has always been in the vanguard and has often demonstrated that any new technology is likely to be welcomed by the market if it meets two requirements: it must improve conditions for all; and it needs to be easy to use.

Adopting this as a basic principle, Cobo S.p.A, a multinational company with headquarters in Leno (BS), Italy, and a worldwide supplier of devices and systems to major OEMs involved in agriculture, construction and the automotive industry (sports cars and superbikes), has been consistently investing in the 'Smart-Sentinel' project.

The company's know-how supports its successful combination of research and development in terms of mechatronics, wireless sensors, plug-and-play systems, connectivity and HMI devices. Integrating all these leads to new systems and services that can satisfy the requirements of the latest generations of vehicles.

In the beginning, the system was born as a safety and prevention device to monitor overturning risk (risk level control) in a continuous and automatic manner, and has greatly helped operators control tractors or public works vehicles under demanding conditions or in difficult environments.

As a result of the constant evolution of Multisensor and its in-built reception and communication devices (GPS, GSM, RF, BT, CAN, ISObus), Smart-Sentinel soon became a small operating control unit that can provide georeferential data for farm-management services for farmers, fleet-management services for contractors and renters, online and remote telemetry, e-services and maintenance for manufacturers of vehicles and tools, as well as for workshops and support centers.

Smart-Sentinel 'gives voice' to vehicles, related tools, operators, work areas, and also to all the resources that are involved in the services and management of a modern business, whether that be an agricultural, industrial, municipal company, or a service provider.

Touching the 'Fleet' key once enables the user to see the vehicles actually being used at any time, where they are on a map, their main clusters, as well as the operator and tool attached for each of them.

Queries can be asked by means of the 'Stat' function, enabling a breakdown of each resource (vehicles, tools, operators, work areas) compared with



the rest, at any time (in real time, in the past few minutes, days or months) to be obtained. It takes just a few seconds to make an overall assessment of both resources and out-of-the-pocket expenses such as which vehicles and tools are being used, by which operators, for how long, and how much fuel is used, per work area.

Another feature worth highlighting is the ability to budget costs and times of works to be executed in a more efficient manner.

## **Data distribution**

Multisensor can send data via GPRS using an ordinary SIM card, or via a device with Bluetooth (tablets or smartphones) which serves a 'bridge' making use of its connection. An app facilitates the use of the user's mobile or tablet like a display.

Data is then sent via the internet to the user's own dedicated domain; from where he can easily consult all data in this domain from any location.

Smart-Sentinel, besides efficiently managing a company's operations, offers a great safety advantage as it automatically saves all the risk situations that occur while driving a vehicle and the signals of alarm 'sensed' by the CAN network – with just a simple

ABOVE: Examples of Smart Sentinel technology applications, both on Cobo's Can View display and on one of the most common modern tablets. (More images and screenshots can be seen at www. ivinternational.com)

click, each of these can be associated to a moment, position, and operating conditions of the vehicle where it occurred.

All of Cobo's subsequent endeavors have been aimed at making information and services easily available because operators want systems and devices that, besides being inexpensive, provide little invasion into a vehicle's interior space and can be used anywhere, easily and quickly.

Finally, with Smart-Sentinel, the company is hoping to attract and engage young farmers and managers, to support them in their search for improvement and change by using the devices and networks they love. Cobo wants to share with these farmers and managers the spirit that drives its business and product development, which is expressed in the motto: 'There is nothing permanent except change.' iVT

Head of Innovation and Advanced Engineering, Gino Mainardi has worked at Cobo Group since 2002



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