

# ICETAG Platform

## Enhance control and know more.

Wireless technologies are more and more used as a technological basis of many civil and industrial applications. The GSM, GPRS, UMTS networks for telephone, the data transmission on the territory and the local Wi-Fi networks are the most common examples to be considering in view of their daily use from all of us.

Also the wireless sensing technologies (and active RFID) are following this growing trend. This applies to those characteristics that make it more interesting, competitive and feasible, some applications which are not with conventional wired sensors technologies.

Recent evolutions in data transmission standards, the abatement of consumptions and energy harvesting techniques (i.e. reuse of the energy available in the environment), have considerably risen the performances of the wireless sensing.

There are battery-controlled devices, where the wireless sensor life lasts years, as well as supercondenser solutions and photovoltaic cell (or also RFID), virtually linked to the MTBF of the electronics.

IceTags devices from TERTIUM Technology, are (active RFID tags) mini dataloggers wireless able to monitor one or more parameters read by the sensors, locally memorize them, transmit them via radio (real time or delay) to the system that must interpret and use them.

The IceTag systems is arranged for monitoring up to 250 different parameters, some typologies of sensors have already been connected/integrated in the IceTags devices, such as:

- movement / vibration
- temperature
- humidity
- oxygen
- door opening (electronic seal)

Other sensors can be added, according to specific requirements and applications. Moreover, the IceTag system also makes it possible to adapt the form and the dimension so that it can better be integrated with the environment where it must operate (wireless sensing devices, to dismantle any wiring, tend to be an integrated solution rather than a systemic one).

There are many applications of IceTags systems. In general they can replace solutions with wired sensors to minimize the costs of installation (for instance machines with rotating parts such as the tanning drums). There are also many applications where the "wireless sensor" makes possible a solution otherwise tricky or too expensive (for example disposable sensors installed in the walls or in surfacing).

The advantages of IceTags systems also relate to the high-level of integration and the contemporary measurement of several parameters (also accessories). This increases the system control which is part of it. In certain cases, we reach higher levels of (empirical) knowledge of the apparatus under control.

