

About TSB

TSB tecnologías para la salud y el bienestar S.A. establishes and develops **new technologies for customized healthcare and wellbeing solutions**, improving people's quality of life and using its technological and research abilities to create new business opportunities.

TSB was founded in February 2008 as a spin-off company of the ITACA Institute of **Polytechnic University of Valencia**. Drawing on more than ten years' research experience in the socio-sanitary sector, it has the capacity to efficiently evaluate and maximise business potential of R&D results as well as to bring new **solutions and products** to the market that meet the needs of our clients.



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Develop your own solutions
based on SPHERAone



What is SPHERAone?

A technology that enables creating localization, identification and tracking applications that can be used to monitor people or objects, both indoors and in pre-defined outdoor spaces, in a secure, precise and efficient manner.

Use cases and scenarios?

SPHERAone presents numerous possibilities and can be tailored for use by businesses, entities and centres where the management, control and monitoring of people is a fundamental aspect of day-to-day operations. Some examples of its use include the application of SPHERAone at clinics and hospitals, leisure centres, schools, residencies and other working environments.

How does it work?

The system works automatically through the installation of location system beacons in any given area. Meanwhile, each person to be monitored wears a wristband which serves to identify, locate and trace them at all times and incorporates a configurable button for use by the user. The entire system is centralised in one server, where the information can be managed simply and easily in real-time.



Benefits

SPHERAone will help you to resolve important problems through the effective identification, traceability and localization of people and objects.

Our technology is easily integrated with other systems and is scalable, thus ensuring its compatibility with potential new versions, other systems as well as future needs.

Along with the network of location system beacons, our advanced location algorithm enables you scanning for people across all areas, thus ensuring the optimum performance of the system.

TSB tecnologías could also adapt and configure SPHERAone individually for each client, which means you receive a solution that is custom-built to meet your needs.

Main functions

- **Localization:** within an enclosure, area or building, so that you can know the exact whereabouts of the users within the pre-defined area in real time.
- **Identification:** both directly, by reading the wristband and automatically, upon entry into a room; know first-hand the identity and background information of the person wearing the wristband.
- **Tracking:** through the central server, resources can be managed and people monitored so that their movements and actions are reported in real-time.
- **Security:** applying these three functions, the system enables total control of comings and goings and can signal anomalies, helping to avoid errors and critical situations.



Technical specifications:

- Works on ISM bandwidth (Industrial, Scientific and Medical) (2.4 GHz)
- ZigBee Standard 2006
- Coexistence with WiFi, Bluetooth and other wireless communication systems
- Control application in JAVA central server
- Easy integration with other systems
- Scalability and compatibility with new versions
- Mesh network platform and scalable coverage
- Data rate: 250 kbps
- CE certification

Device	Locations Beacon	Wristband
Supply	220 V.-	CR2032 button battery (3 V)
Comms	Zigbee, ETHERNET	Zigbee
Minimum battery life	N/A	12 months
Size (mm)	80x80x65	40x30x8

