

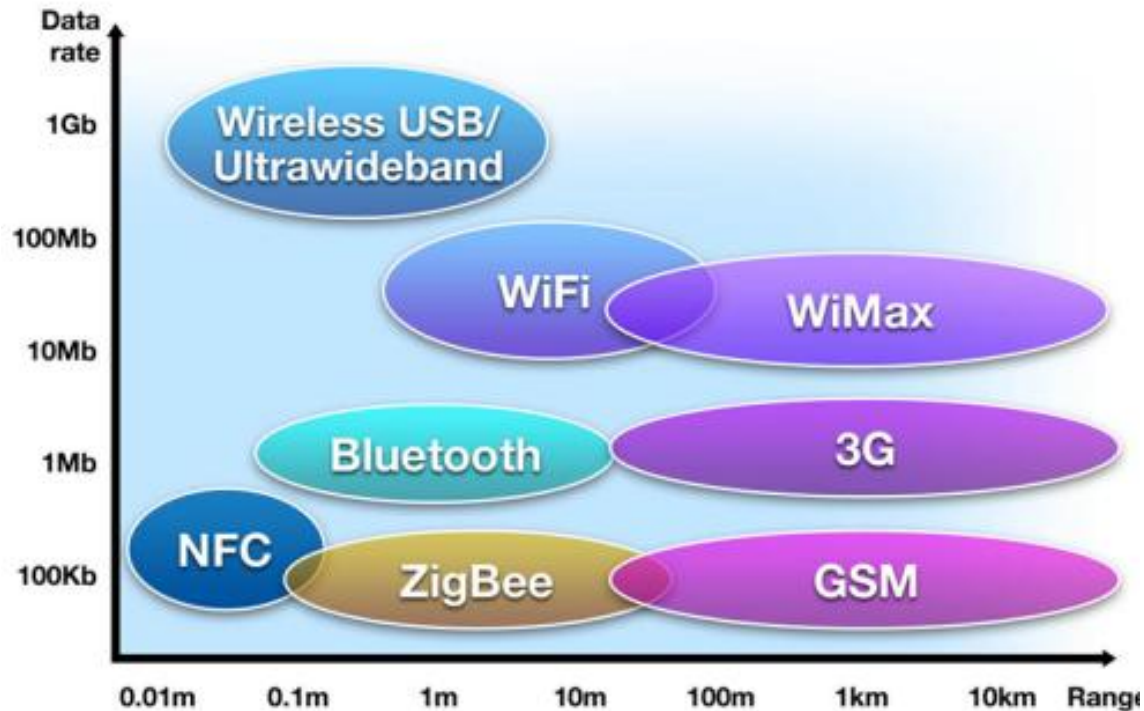


# CORPORATE PRESENTATION

SEPTEMBER 2011

HOPPING WIRELESSLY

# TST is a specialist in wireless technologies



**TST designs customized wireless solutions with the best fitting technology for each application**

# Milestones

## YEAR 2008

*Proximity Marketing project for the city of Santander*

*J2ME mobile apps*

*R&D: Sensor networks & heterogenous interfaces*

## YEAR 2010

*Lighting control at Santander's harbor*

*R&D: Cognitive radio, energy efficiency in cellular networks, M2M/LTE*

## YEAR 2009

*Quality certificates ISO9001 & ISO14001*

*R&D: Renewable energies (wind & marine), enviromental control*

## YEAR 2011

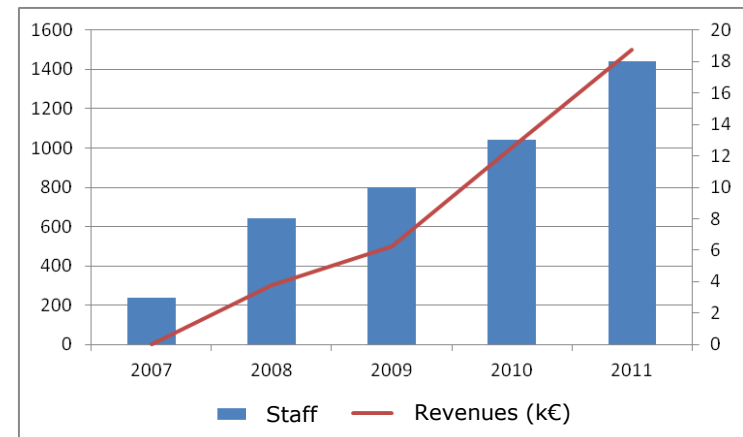
*TSmarT platform launch  
Headquarters at PCTCAN*

*Logistic management at Sabadell's Hospital*

*R&D: Smart Cities, vineyard monitoring*

## YEAR 2007

*TST founded*



# Markets



## Smart Cities

- Lighting control
- Pipeline monitoring
- Parking
- Access control



## Environment

- Vineyard control
- Water Control
- Fire detection



## Harbors

- Lighting control
- Traffic lights control
- Meter reading
- Level supervision



## Energy

- AMI/AMR
- Energy Efficiency
- Supervision of network analyzers
- Lighting control



## Logistics

- GPS tracking
- Cold chain monitoring
- RFID / NFC identification

# Communication platform for wireless monitoring and remote control applications



**TSmart**

# TSmarT, the wireless Swiss knife

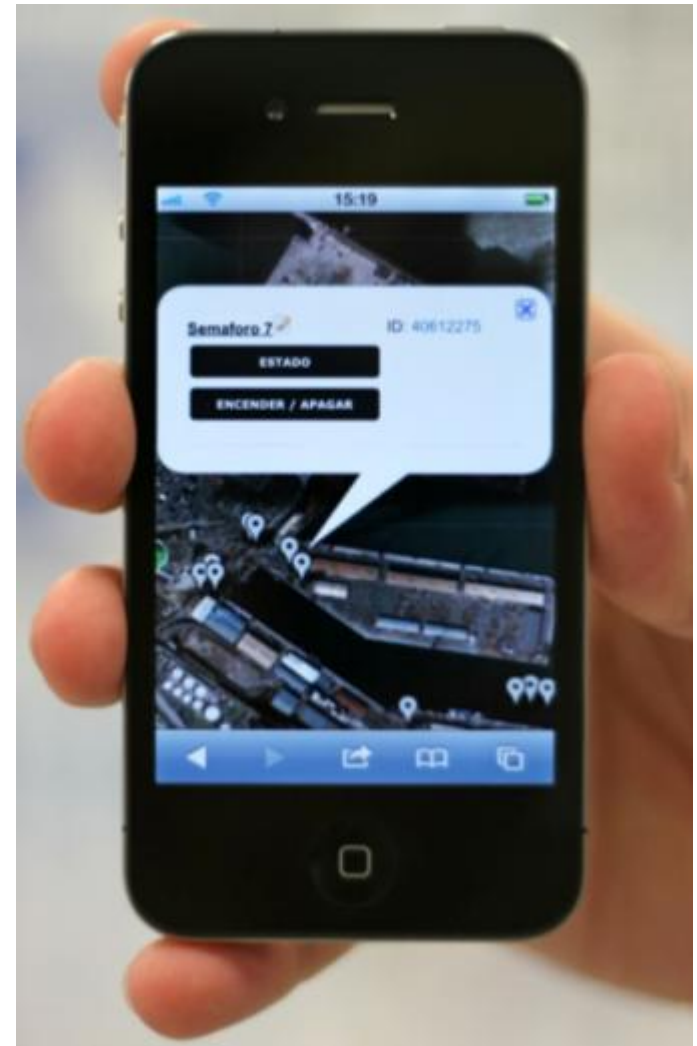


# TSmarT control software based on a user-friendly web interface



# Apps for smartphones

- **App development for mobile devices**
  - iPhone / iPad
  - Android
  - J2ME
- **Use of emerging technologies like NFC & smartcard**



# References



Design and development of a lighting control system.

Case of use: Lighting control system to turn on/off each single electric tower within the harbor.

Technology: Web, ZigBee, Ethernet.

25 devices installed at Santander's harbor.



Design and development of a remote control system to manage traffic lights.

Case of use: Remote control system to manage the traffic lights within the harbor area.

Technology: Web, ZigBee, Ethernet.

15 traffic lights working at Bilbao's harbor.



Design and development of a product to manage the supply chain at hospitals.

Case of use: NFC tag reading of the products consumed in the hospital and generation of a replacement order to the warehouse's ERP system.

Technology: NFC, Wi-Fi, Ethernet, GPRS/UMTS.

70 devices installed at Sabadell's Hospital.

## What our customers say

“TST has developed the perfect product to meet our needs.”

Rosa García, R&D Manager at HLL

“The only radio system that has worked fine at the harbor was TST’s.”

Iñigo Ímaz, Facility Manager at Bilbao Port Authority

“With TST’s lighting control system we have reduced our energy consumption by 40%.”

Félix Carpintero, Facility Manager at Santander Port Authority

# R&D projects with leading telecom companies

## Partners



## Programs



# TST, a team at your service



**+34 942 760 540**  
**[www.tst-sistemas.es](http://www.tst-sistemas.es)**  
** [@tstsisistemas](https://twitter.com/tstsisistemas)**

