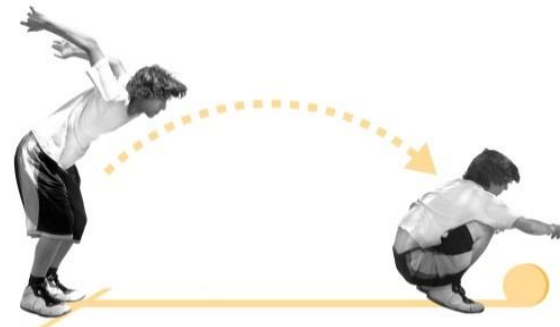Odin S

Let us invent *Smart Solutions*

Odin Solutions

Spin-off from the Universidad de Murcia (UMU) based on more than 7 years in the research and development on remote monitoring and sensor control systems

Let us invent Smart Solutions

Odin Solutions S.L.

Why we decide to have this step:

- Needs:
  - We have been looking for solution to retain the knowledge represented by the researchers working with us
  - Lack of ternure track within research institutions

- Opportunities:
  - Maturity of the technologies we have been developing with extensive testing based on collaboration with industries
  - The flexibility/modular design that allows several usage of the same baseline
  - The University Smart campus deployment that brings a 30 building and 60 vehicles showcase

- Challenges
  - Create a company with UMU participation (2 years of discussion on royalties, etc)
  - Define a business model for the IoT ecosystem

OdinS

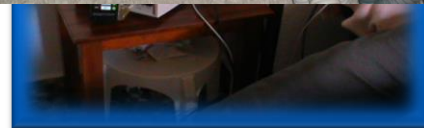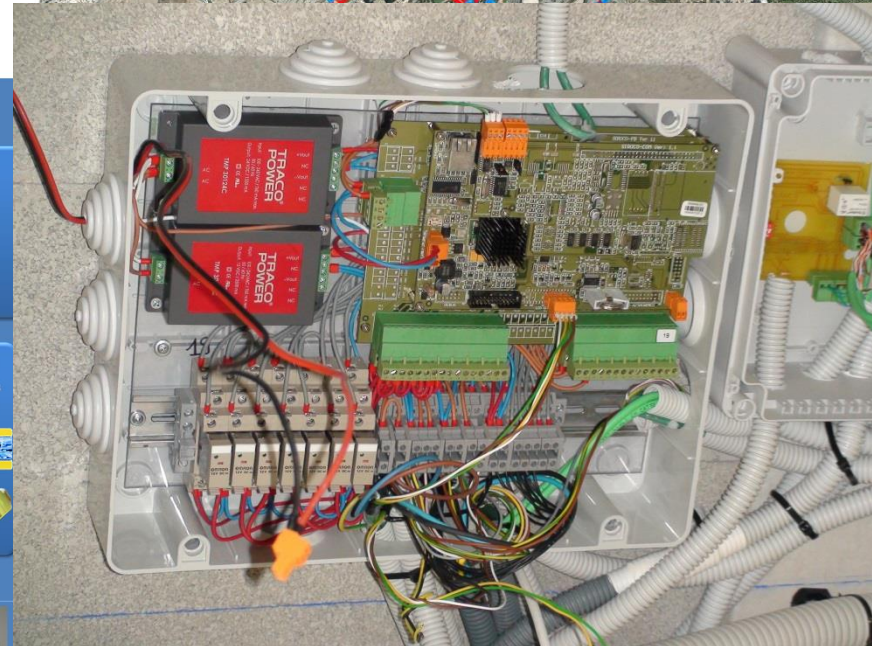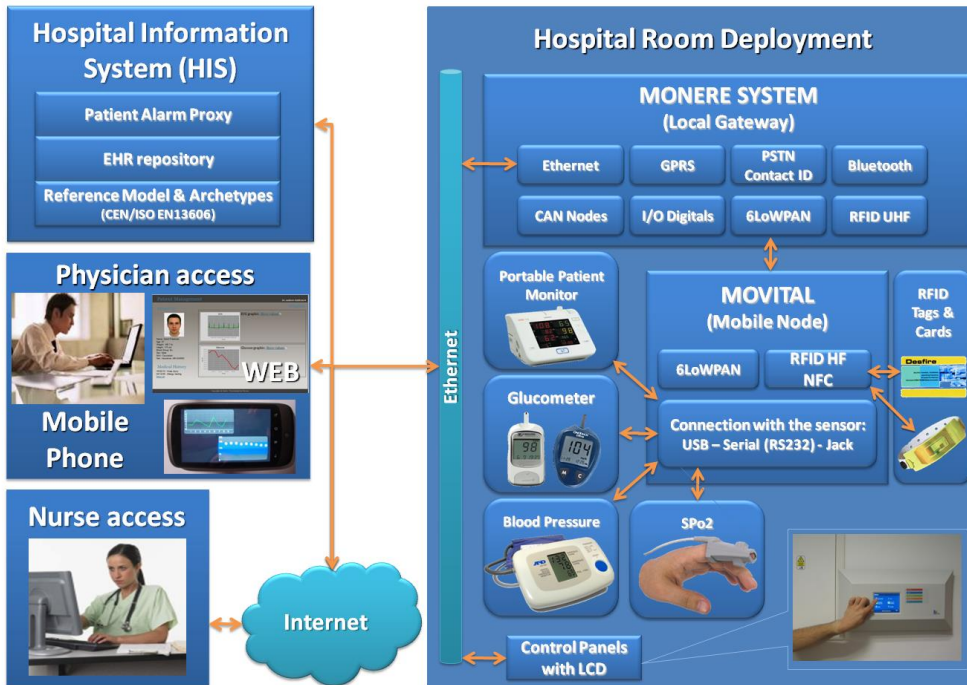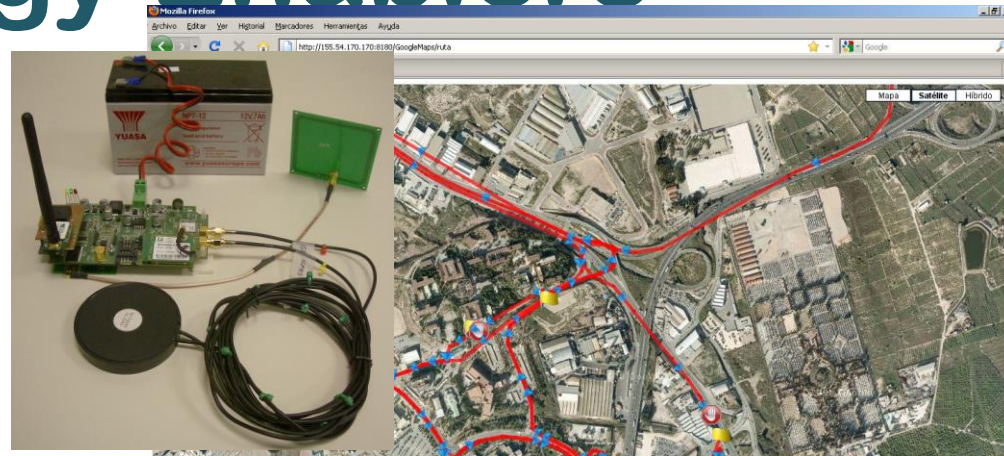Let us invent Smart Solutions

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Spin-off leveraging on IoT technology and different enablers developed over several years:

- – Integration of heterogeneous sensors in a common IP-based gateways
  - KNX, HVAC, Deli, CAN, propietary alarms system, etc
  - 6LoWPAN support for new sensors
- – SCADA web system for monitoring and actuation over sensors with an editor for defining interactions
- – Results in the domotic, sensor fusion and the remote monitoring and operation on agricultural deployment
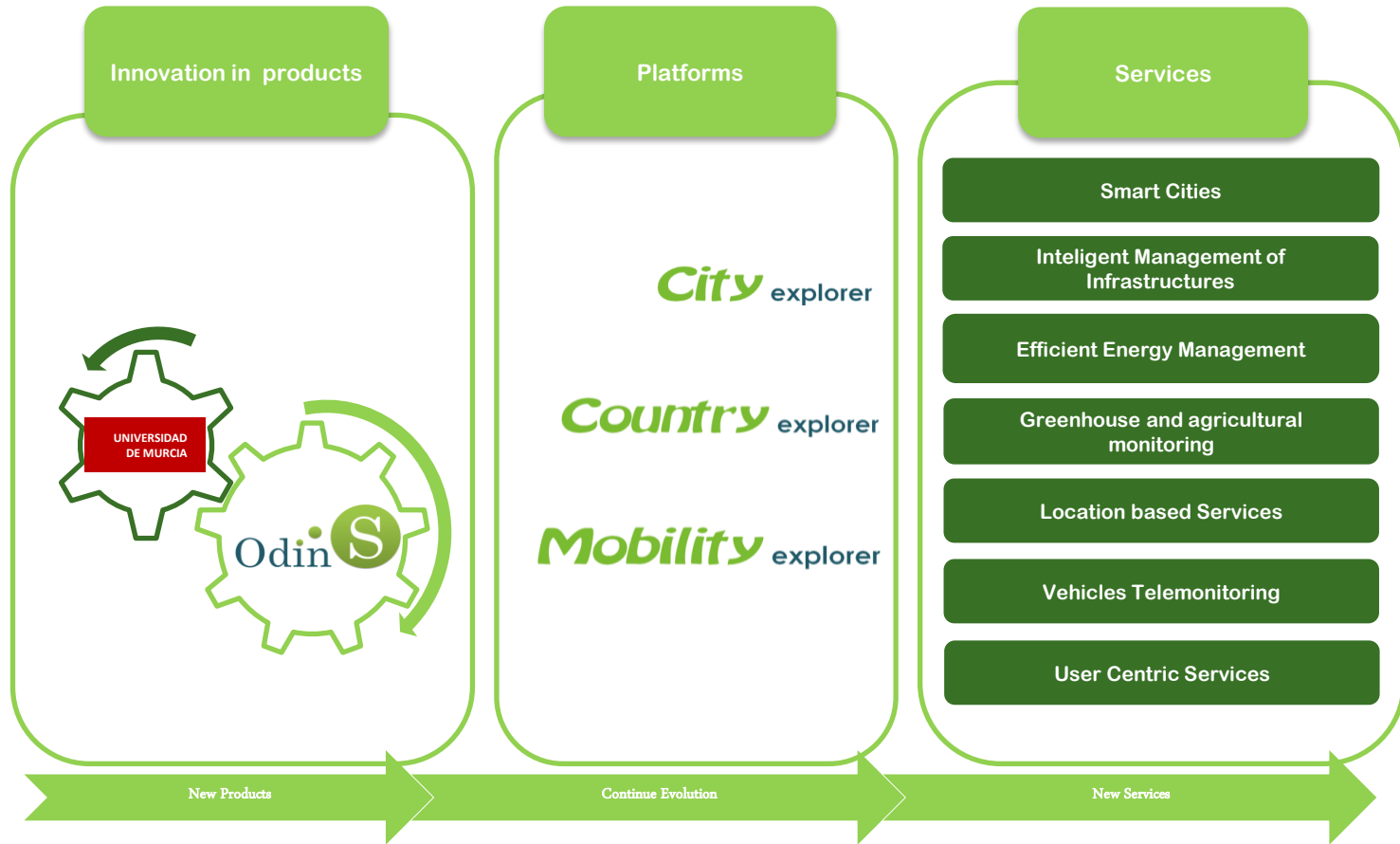
We have a solid baseline based on an innovation and technology transfer approach

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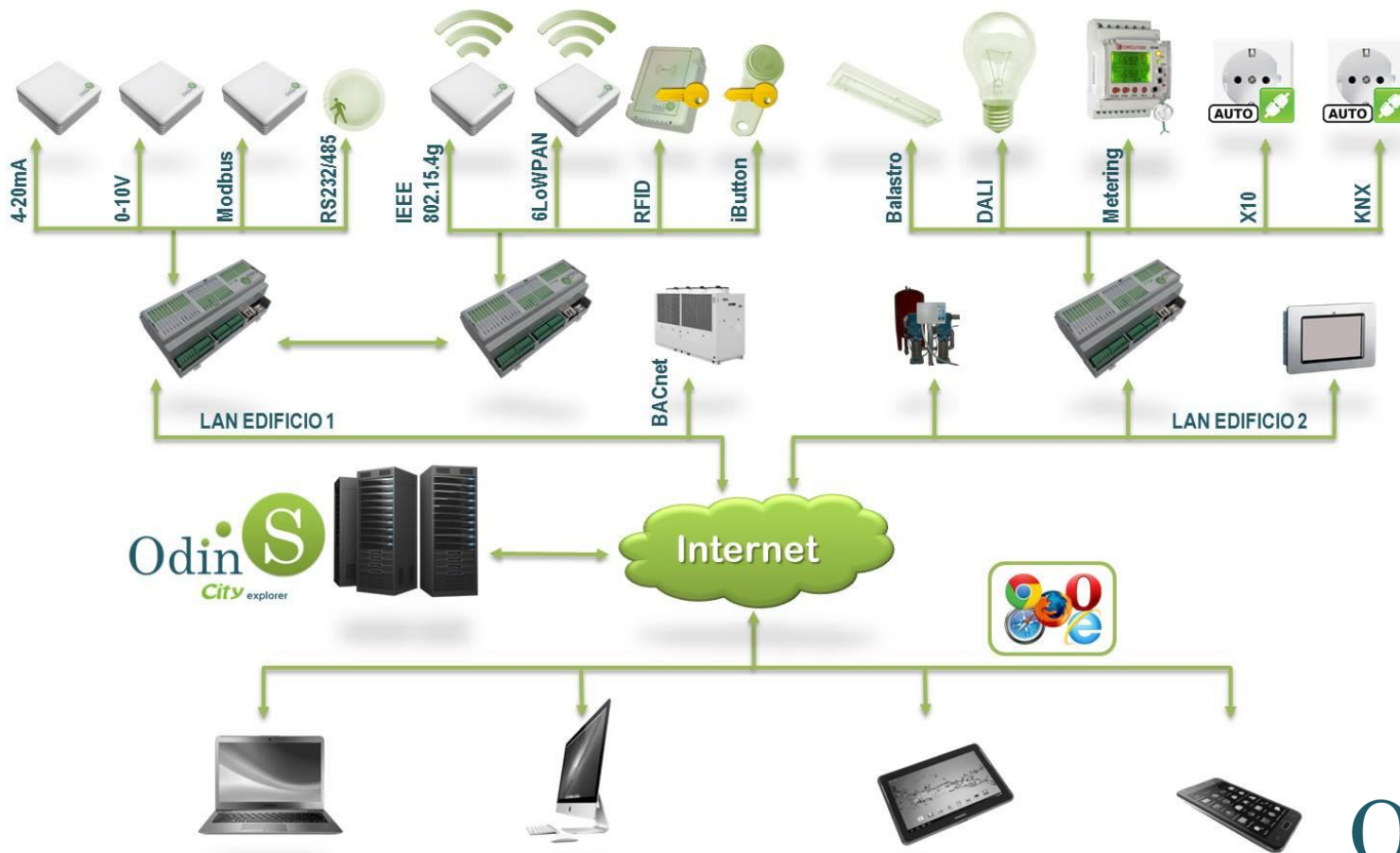Let us invent Smart Solutions

Technology Enablers

Hospital Information System (HIS)
- Patient Alarm Proxy
- EHR repository
- Reference Model & Archetypes (CEN/ISO EN13606)

Physician access
WEB

Mobile Phone

Nurse access

Internet

Hospital Room Deployment

MONERE SYSTEM (Local Gateway)
- Ethernet
- GPRS
- PSTN Contact ID
- Bluetooth
- CAN Nodes
- I/O Digitals
- 6LoWPAN
- RFID UHF

Portable Patient Monitor

MOVITAL (Mobile Node)
- 6LoWPAN
- RFID HF NFC

RFID Tags & Cards

Glucometer

Connection with the sensor: USB – Serial (RS232) - Jack

Blood Pressure

SPo2

Ethernet

Control Panels with LCD

OdinS: ¿What is offering?

Innovation in products

Platforms

City explorer

Country explorer

Mobility explorer

Services

Smart Cities

Inteligent Management of Infrastructures

Efficient Energy Management

Greenhouse and agricultural monitoring

Location based Services

Vehicles Telemonitoring

User Centric Services

New Products → Continue Evolution → New Services

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Platform of Monitoring and Control

Smart Buildings

- ✓ Integral Management
- ✓ Energy reduction

Monitoring of Energy Production

Graphic Editor of City explorer

Country explorer

- ✓ **Monitoring of crops**
- ✓ **Irrigation**
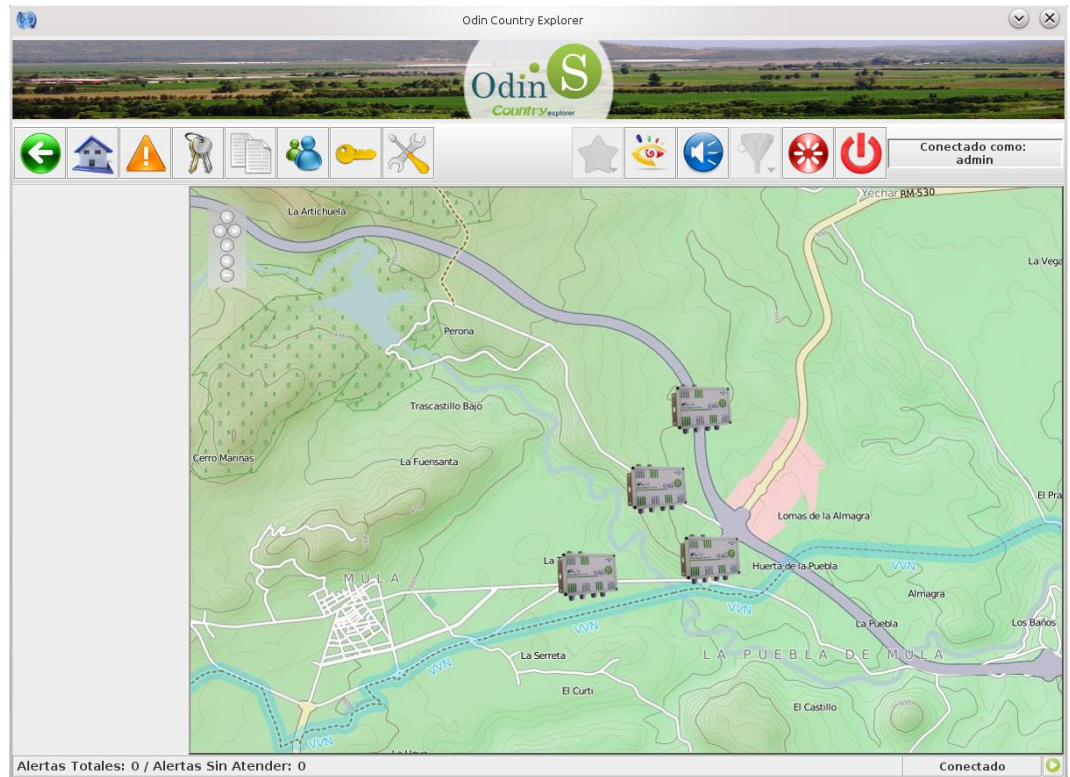
Mobility explorer

- ✓ Vehicle management
- ✓ Tele-monitoring
- ✓ RFID control of driver

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Lesson learnt:

1. Either maturity of products was tested, still in real life complex situations. Unexpected happens!!

2. Many times it is better to sell concrete products/services and not an integrated system as clients do not understand complexity. Always better simple!!

3. Open interfaces, standarization and flexibility in the integration is key to be competitive. Apple/Microsoft business model are the exception!!

4. Good start is using distributions channels and collaborating companies. It is difficult to conquer the world in short time!!

5. IoT is a novel market, still many misunderstanding, Legacy exists!!

Lesson still to be learnt ☺

1. How to maintain innovation while the everyday consumes your time. Is there life out there?

2. User involvements mechanism for better acceptance of apps. Clients are always right!!

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Let us invent Smart Solutions

Smart ...
Smart city
Smart roads
Smart lighting
Smart buildings
Smart agriculture
Smart environment
Smart Solutions…

Thank you!