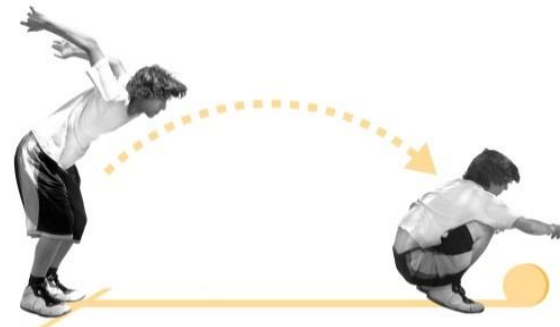




Odin Solutions

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



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



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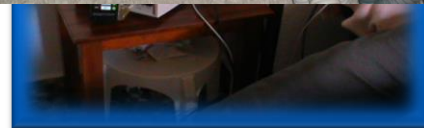
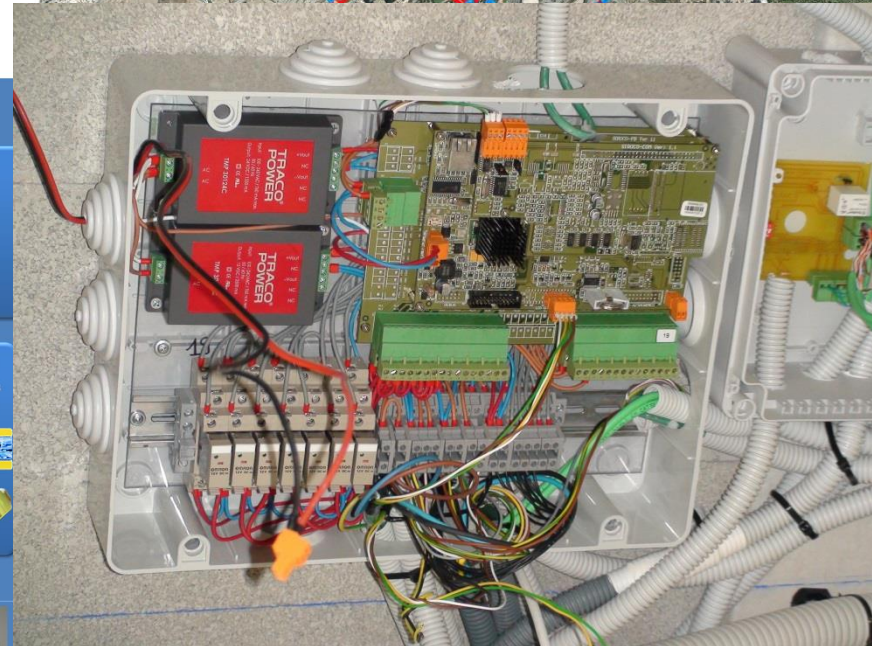
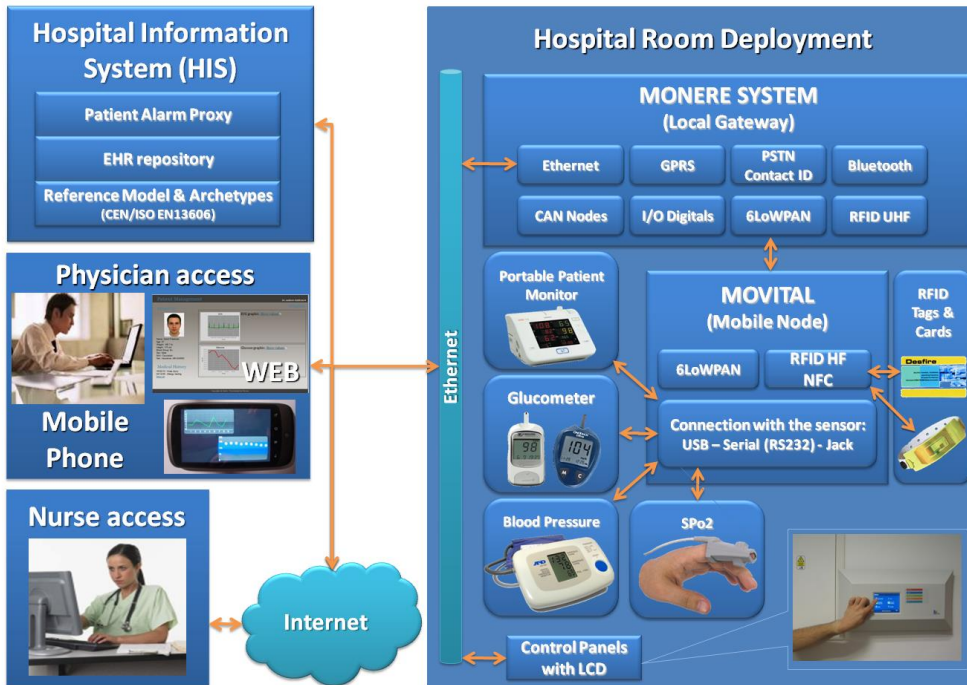
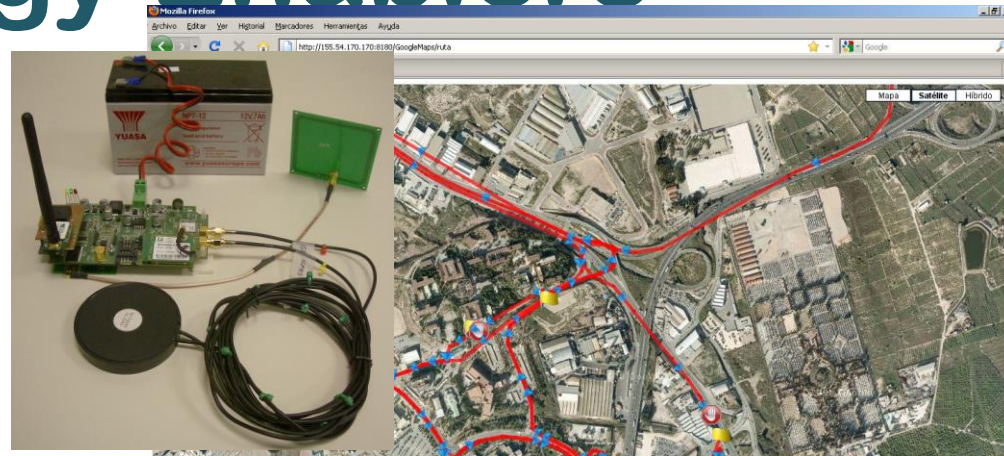
Spin-off leveraging on IoT technology and different enablers developed over several years:

- Integration of heterogeneous sensors in a common IP-based gateways
 - KNX, HVAC, Deli, CAN, proprietary 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

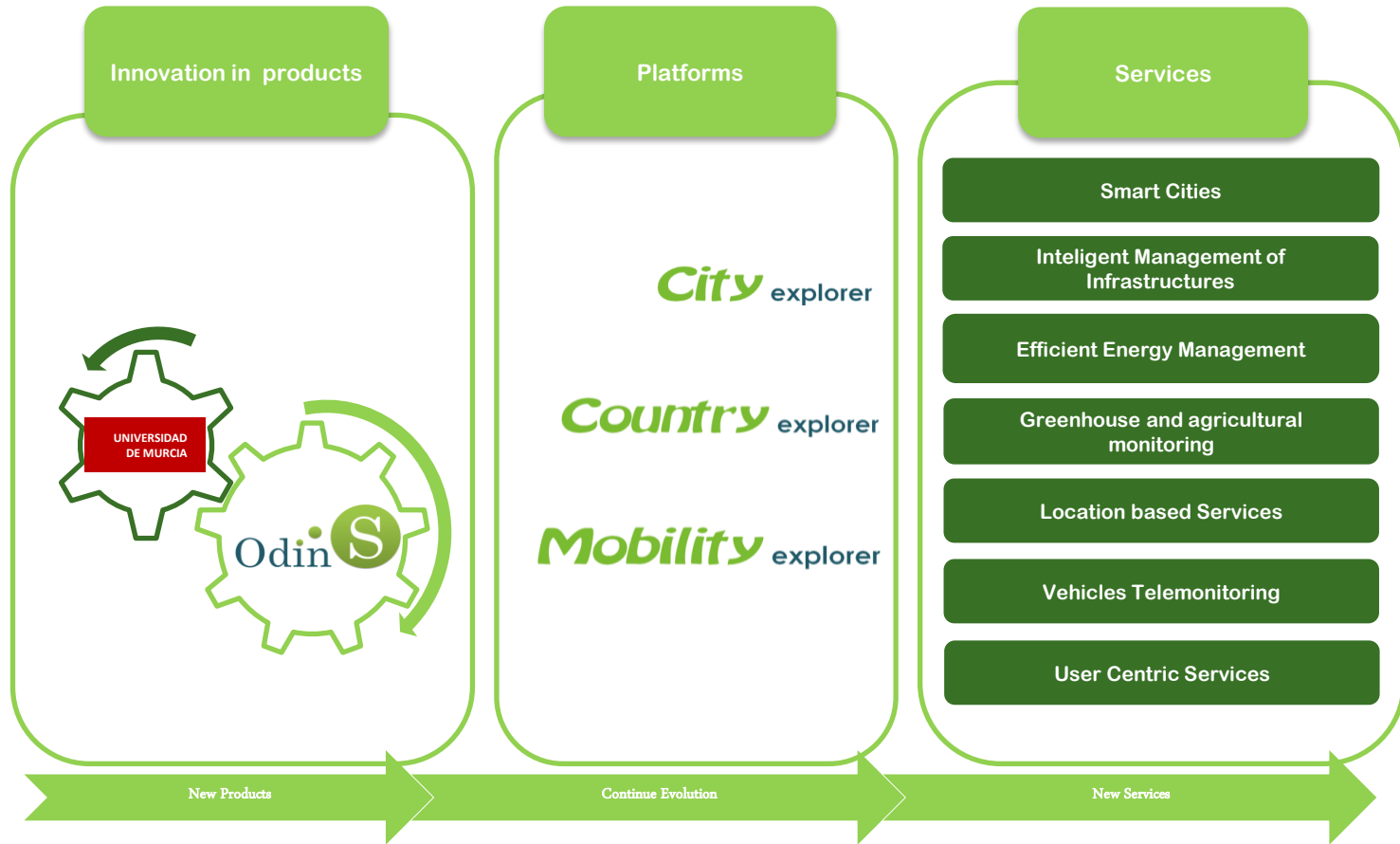
We have a solid baseline based on an innovation and technology transfer approach



Technology Enablers

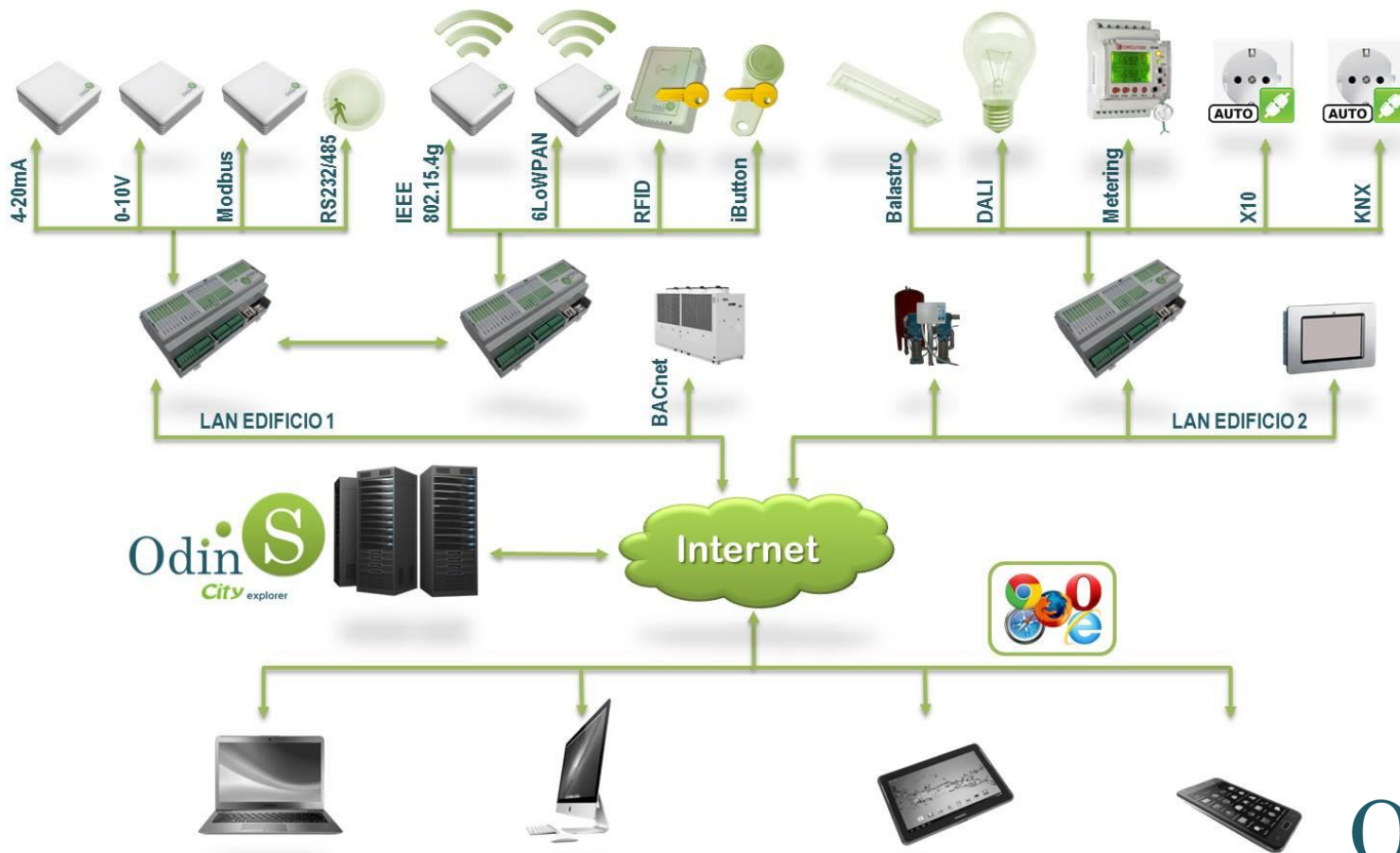


OdinS: ¿What is offering?



Platform of Monitoring and Control

Cityexplorer



Smart Buildings

- ✓ Integral Management
- ✓ Energy reduction

The screenshot displays a web-based management interface for smart buildings. At the top, a browser window shows 'Odin City Explorer / Clima'. The interface includes several key components:

- SMART-DRIVER**: A button above an image of a desk lamp and a circuit board.
- IPSO Alliance**: Logo for the IPSO Application Framework Advanced Smart Lighting Profile.
- COMMUNICATING**: A green status indicator.
- Navigation and Tools**: A top toolbar with icons for back, home, warning, keys, documents, users, a key, and tools.
- Temperature Controls**: Panels showing 'Conectado como: admin' and temperature settings (e.g., 28.3 °C, 25.2 °C, 21.9 °C) with 'Habilitado' (Enabled) and 'Deshabilitado' (Disabled) buttons.
- 3D Room Model**: A central 3D rendering of a room with a desk, shelves, and a plant. A 'Deshabilitado' clock icon and 'Acciones' (Actions) button are overlaid on the model.
- Alerts**: A red banner at the top left indicates 'Proyector Epson EB-410W'.
- Bottom Bar**: A red bar with 'Alertas Totale' on the left.



Monitoring of Energy Production



Graphic Editor of City explorer

The image displays two overlapping windows from the City Explorer SCADA software. The top window, titled "Alertas / Estado / Configuración / Eventos", shows a status panel with several green checkmarks indicating no active alarms or faults. The bottom window, titled "Scada Web / Sala 1", shows a graphical control interface with a central workspace containing a "Termostato" (thermostat) and a "Controlador iluminación" (lighting controller) block. A "Horario" (schedule) block is also present. A left sidebar lists various modules like "IP-eS6", "Programador horario", and "Módulo inteligente digital". The interface includes a toolbar with navigation icons and a status bar at the bottom showing "Alertas Totales: 0 / Alertas Sin Atender: 0".

Central contraincendio
Notifier ID: 3000

Última Actualización
18/03/2013 01:26:11

Acceso a históricos

Alertas Totales: 0 / Alertas Sin Atender: 0

Scada Web / Central contraincendio (Facultad de Psicología)

Alertas / Estado / Configuración / Eventos

Maestra | Esclava 1 | Esclava 2 | Esclava 3 | Esclava 4 | Esclava 5 | Esclava 6 | Configuración | Históricos de eventos

Alertas Estado

- ✓ No hay alarma
- ✓ No hay prealarma
- ✓ No hay fallo
- ✓ No hay fallo de comunicaciones en red
- ✓ No hay evento de módulo desconocido

Información del módulo desconocido:
Direccionamiento:

Rearmar

Volver

Scada Web / Sala 1

Odin S
City Explorer

Conectado como: 1

Los + usados

- IP-eS6
- Termostato
- Programador horario
- Módulo inteligente digital
- Módulo inteligente analógico
- Ficha
- Ficha
- Tejido

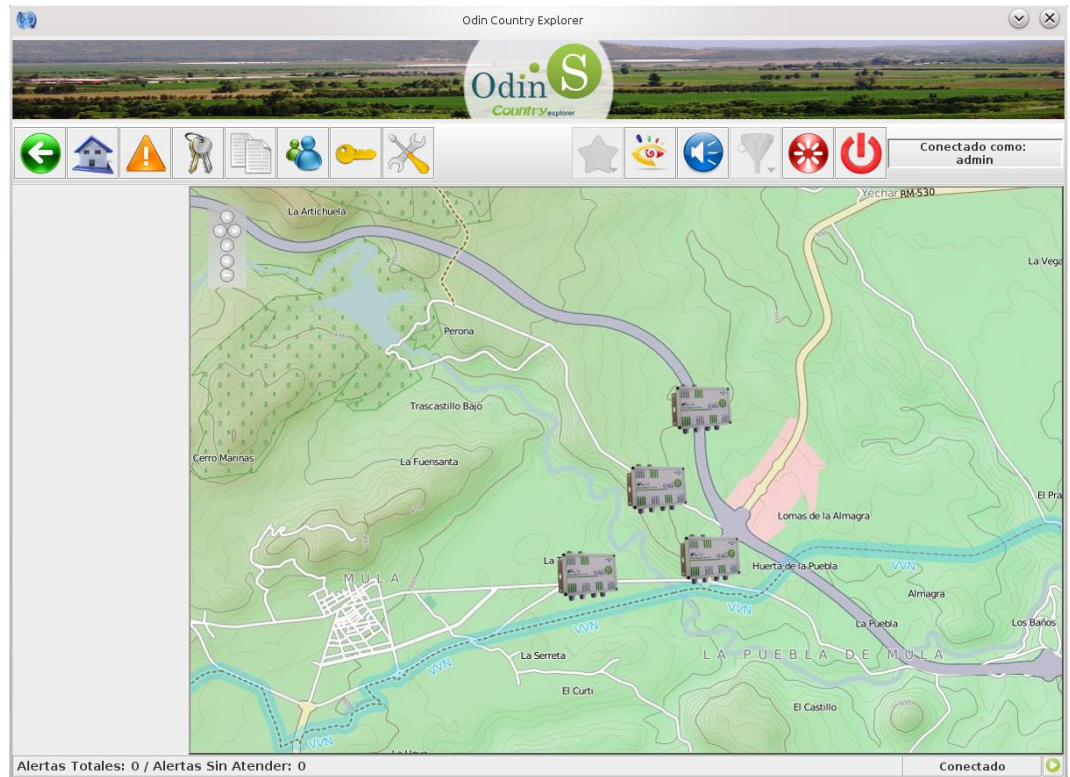
Entradas/Salidas
Módulos inteligentes
Zonas
ScadaWeb

Alertas Totales: 0 / Alertas Sin Atender: 0

Conectado

Country explorer

- ✓ Monitoring of crops
- ✓ Irrigation



Mobility explorer

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



Control de Flota - UMU

Archivo Edición Informes Herramientas Ayuda

Flota
(Desconocido)
Unidad Técnica
0001 AAA
0002 AAA
0003 AAA
0004 AAA
0005 AAA
0006 AAA
0007 AAA
0008 AAA
0009 AAA
0010 AAA

Scale: 5.0m/pixel

Informes

Geolimites	Kilometraje	Paradas	Trayectos						
Vehículo	Fecha	Origen	Salida	Destino	Llegada	Duración			
0008 AAA	15/12/2009	Nave industrial	11:35	Servicio de animales de laborat...	11:46	11 min			
0008 AAA	15/12/2009	Servicio de animales de laborat...	12:17	Servicio de animales de laborat...	12:17	0 min			
0008 AAA	15/12/2009	Servicio de animales de laborat...	14:04		14:13	9 min			
0008 AAA	15/12/2009		15:11		18:54	1:55 h 42 min			
0008 AAA	01/02/2010		19:48		19:48	0 min			
0008 AAA	02/02/2010		08:50		08:50	0 min			
0008 AAA	02/02/2010		11:54		11:54	0 min			
0008 AAA	02/02/2010		11:57	Dependencias SPJM	12:06	8 min			
0008 AAA	02/02/2010	Dependencias SPJM	12:24		12:28	3 min			
0008 AAA	02/02/2010		12:29		12:32	3 min			
0008 AAA	02/02/2010		12:33		12:37	4 min			
0008 AAA	02/02/2010		12:56		13:07	11 min			
0008 AAA	02/02/2010		13:09		13:10	1 min			
0008 AAA	02/02/2010		13:12		13:15	3 min			
0008 AAA	02/02/2010		13:37		13:51	13 min			

Mostrar:
 gráfica
 tabla
 Ver en mapa
Modificar criterios
Actualizar



Odin Solutions S.L.

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!!



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

Thank you!