



Smart Buildings, Smart Customers: Smart Office building in Madrid

FINESCE Final Event “Utility 4.0”

The Madrid trial building

FUTURE
INTERNET
SMART
UTILITY
SERVICES

FINESCE

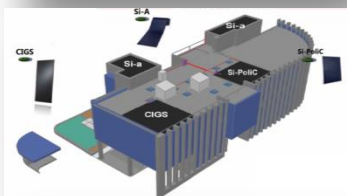


- Objective: experimentation of innovative energy services for office buildings based on FIWARE technology
- Building assets integrated in the trial:
 - BMS with remote operation (Building Control Centre)
 - Energy generation and storage
 - Wireless metering & monitoring network

Trial architecture

FUTURE
INTERNET
SMART
UTILITY
SERVICES

FINESCE



Orion

Cosmos

Context Awareness
Platform

Identity Management
– Keyrock

Generic Enablers

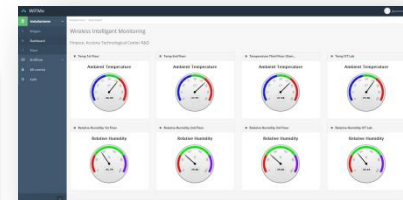


Temporal
Consistency

Scene Manager

Finesce API
Mediator

Specific Enablers



Scene	Process	Module	Created	Updated
WSN High temperature	Temp	WSN	03/12/14	17/04/15 16:13
WSN High temperature	Temp	WSN	03/12/14	17/04/15 16:13
Change of use	Image	WSN	03/12/14	17/04/15 16:13

Value	Value	Time	Module
203	203	2015-04-16 20:10:45	WSN
218	218	2015-04-16 20:10:45	WSN
0.12	0.12	2015-04-16 20:10:45	WSN
15.81	15.81	2015-04-16 20:10:45	WSN
3.22	3.22	2015-04-16 19:10:44	WSN
8.16	8.16	2015-04-16 19:10:44	WSN
16.26	16.26	2015-04-16 19:10:44	WSN
2.26	2.26	2015-04-16 19:10:43	WSN
2.26	2.26	2015-04-16 19:10:42	WSN
3.25	3.25	2015-04-16 19:10:42	WSN
8.15	8.15	2015-04-16 19:10:42	WSN
16.43	16.43	2015-04-16 19:10:42	WSN

3rd Party Apps

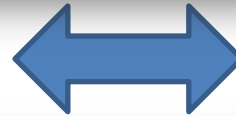
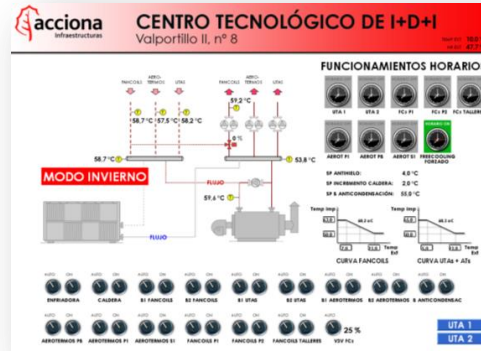
Trial systems

Trial results and business impact

FUTURE
INTERNET
SMART
UTILITY
SERVICES

FINESCE

- **Main result:** smart office building energy services enhanced through FIWARE foundations
 - Demand management and optimization
 - Integrated energy generation and storage management
 - Auditing, monitoring and verification services
- **Specific Enablers:** reusable modules for energy services development
- **Trial API:** office building data for experimentation



- Results addressing **evolving energy services market**
 - Increasing integrated energy generation and storage
 - Changing regulatory framework
 - End users as active stakeholders: enabling interaction
- Testing **FIWARE** as a technology enabler



Thank you for your attention!