



## SportE<sup>2</sup>@finish line

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- Energy savings: the facts
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SportE<sup>2</sup> has just crossed the finish line and this is the final issue of the project newsletter. If this is the first time you read about SportE<sup>2</sup>, it is a pleasure to remind that we developed an innovative modular Building Management System for sports facilities. Four Modules (How, When, Why and Where) provide smart metering, integrated control, optimization and multi-facility management. The solution offered by SportE<sup>2</sup> project is scalable and reliable to satisfy the different needs and complexities of sports facilities.

The SportE<sup>2</sup> system has been installed in three real buildings and in this issue you will discover how it works, the savings achievable and the future of our product. The initial objective of our project was to design an ICT-based solution to obtain the 30% of energy saving in sports facilities. Now we are very proud to say that we scored the point! Look inside this issue to know the final results from the field and contact us to pave the way of SportE<sup>2</sup> toward a successful market placement.

## SportE<sup>2</sup> speaks to the world

### Workshop - Sport facilities: a challenge for energy efficiency



**Bilbao 21th Nov 2013** – SportE<sup>2</sup> organized a one day event dedicated to the energy efficiency in sports facilities. The support of local authorities and **emteSPORT** gave the possibility to put around the table the most important actors of the facility management. At the end of the day a lot of fruitful discussions took the way to find an answer to questions like "how can I improve the energy management of the facility or group of facilities?", "am I aware of what is happening in my facility?"

### Event - EXPO: An opportunity for a Smart Olympic Sport

**Milan 25th Jun 2014** – SportE<sup>2</sup> and the C.O.N.I. Lombardia discussed about the energy efficiency for sports facilities in the perspective of the event EXPO2015. The conference was held in the beautiful location of Palazzo Cusani and hosted the most important authorities, sports associations and consular representatives.



### Workshop - The energy efficiency in Commercial and Public Buildings

**Cardiff 3rd Jul 2014** – SportE<sup>2</sup> organized the workshop **Advanced Energy Management Solutions for Commercial/Public Buildings**. The event, hosted by Cardiff University, has seen a very stimulating meeting between public administrations (Cardiff and Derry City Councils) and EU projects (SportE2, n0e-sport and KnohoLEM) to discuss about the future of the energy efficiency in commercial and public buildings. Where we are now and what will be the next step to achieve the energy target for the city of the future!



**Do you want to know more?**

**Look at the documentary on Euronews: Burn fat, not energy**  
<http://www.euronews.com/2013/04/08/burn-fat-not-energy/>

## Highlights:

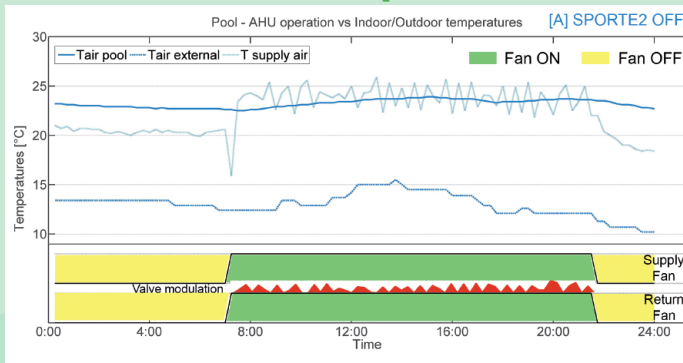
- HVAC
- Comfort
- Pool water
- Air and water quality
- Optimization

# Optimal HVAC management

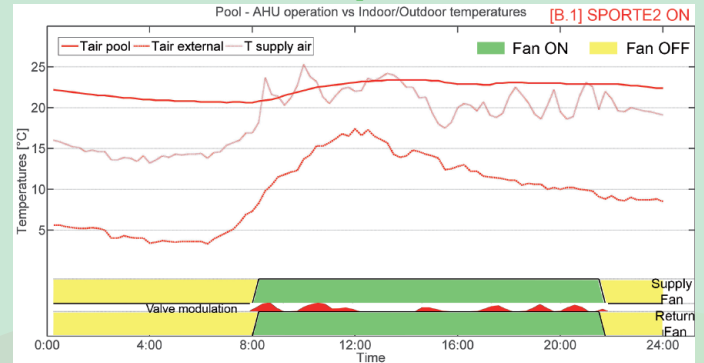


The **heating, ventilation and air conditioning** system represents one of the most energy consuming equipment of sports facilities. Especially considering the swimming pools and large spaces or considering the high air quality requirements. The SportE<sup>2</sup> system faces this issue and provides a **tailored solution** based on monitoring, control and optimization that overcomes the typical thermostatic control. The application in a real case study showed how the near real-time optimization is able to reduce the operation of the heating circuit maintaining the comfort conditions. **Why heating the air if not needed!**

## Without SportE2



## With SportE2

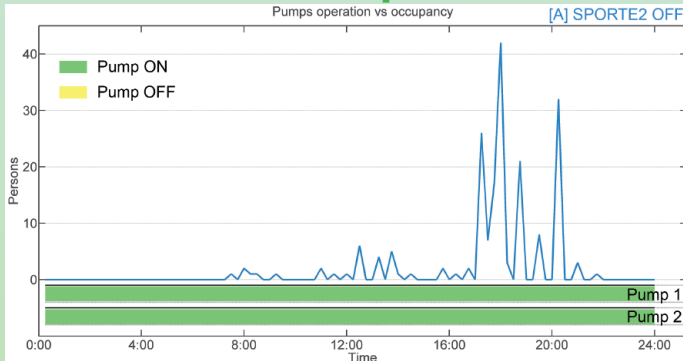


# Pool water treatment

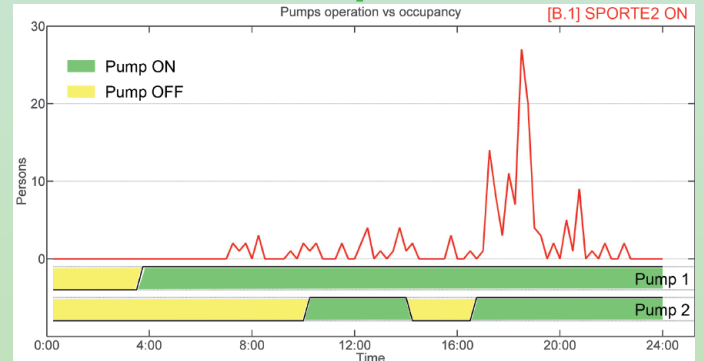


The pool water treatment is a **heavy task** for swimming pools. The amount of water to be heated, filtered and disinfected is usually high and requires a continuous load for the pumping system. SportE<sup>2</sup> controls automatically the pumping in function of the actual occupancy, scheduling and water quality. The control optimizes the usage of the pumping system with an **energy saving of about the 30%** and guaranteeing the required **water quality**.

## Without SportE2



## With SportE2



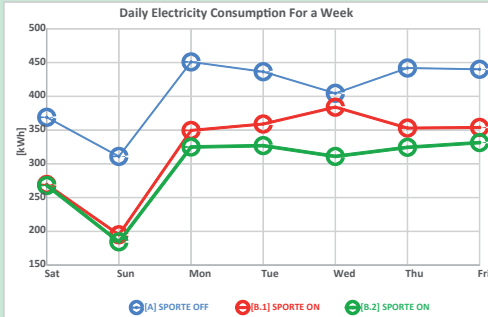


# Energy savings: the facts

Highlights:

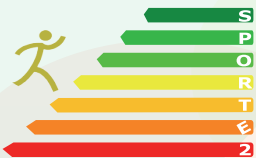
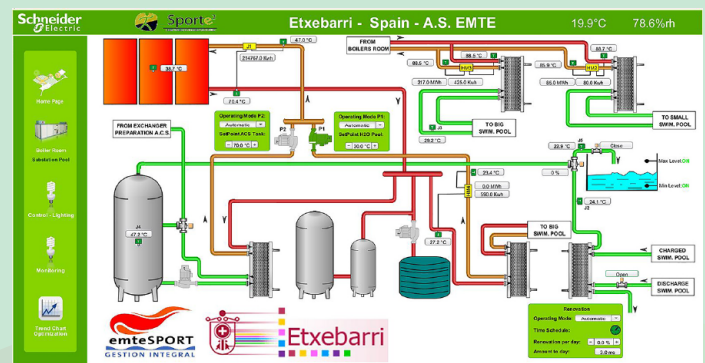
- Energy saving
- Thermal solar
- Customizable
- Market
- 5 years ROI

SportE<sup>2</sup> achieved an **overall energy reduction in the three pilot cases**, registered an improvement of the indoor conditions and showed how to optimize the use of renewables.



The energy profile at Fidia sports facility was reduced of about 21% for the electricity and 30% for the thermal energy

The improved control of the solar tank revealed an increase of solar energy share from 32% to 56% with a saving of gas consumption of about the 45%!



## A look to the future: what will be the SportE<sup>2</sup> system?

The facts say that the SportE<sup>2</sup> system put a brick to achieve the objective of Energy Efficient Buildings. This brick is an ICT solution for sports facilities.

The BMS is customizable to fit the needs for each building and, at the end of the project, some specific applications have been developed and validated:

- HVAC control**
- Pool water treatment**
- Thermal solar management**
- Boilers control**
- Lighting control**
- Smart Metering**
- Comfort metering**
- Facility benchmarking**

After a preliminary audit, the best size of the SportE<sup>2</sup> system for the facility is designed to obtain a **return of investment of 5 years**. The system will be dimensioned on the real chance of savings achievable in facility and, if a new application is required, it will be designed to enlarge the technical solutions dedicated to sports facilities.

## Highlights:

■ ICT for Energy Efficiency

■ [www.sporte2.eu](http://www.sporte2.eu)

■ Subscribe for Update

# Project Info



**SportE<sup>2</sup>** is a EU-Cofounded FP7 project, involving a group of 9 partners from Europe to develop energy efficient products and services dedicated to needs and unique characteristics of sport facilities. In short, we will excite the sport facility community about energy efficiency and develop ICT related energy consultancy services, hardware, and software to reduce energy consumption and emissions production by 30% in these facilities with a 5 year return on investment. To do this, the project will develop an integrated, modular, and scalable ICT system to manage energy consumption, generation, and exchange locally and within the larger context of the smart grid/neighbourhood. The core of the system and approach are four scalable modules that can be purchased and employed separately or integrated depending on client needs.

More info: [www.sporte2.eu](http://www.sporte2.eu)



### The Consortium

CARDIFF  
UNIVERSITY  
PRIFYSGOL  
CAERDYDD

D'APPOLONIA  
consulting, design, operation & maintenance engineering

STARING  
Studio di Architettura ed Ingegneria

A.S. FIDIA dal 1983

Schneider  
Electric



emteSPORT  
GESTION INTEGRAL

tecnalia  
Inspiring Business

selfenergy  
innovation

ISA  
Intelligent Sensing Anywhere

Starting

01 September 2010

Ending

31 August 2014

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European Commission



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