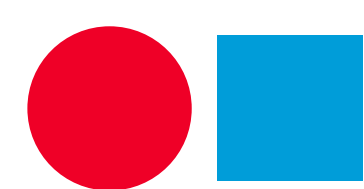


# DRIVE

[www.h2020-drive.eu](http://www.h2020-drive.eu)

## DEMO SITES

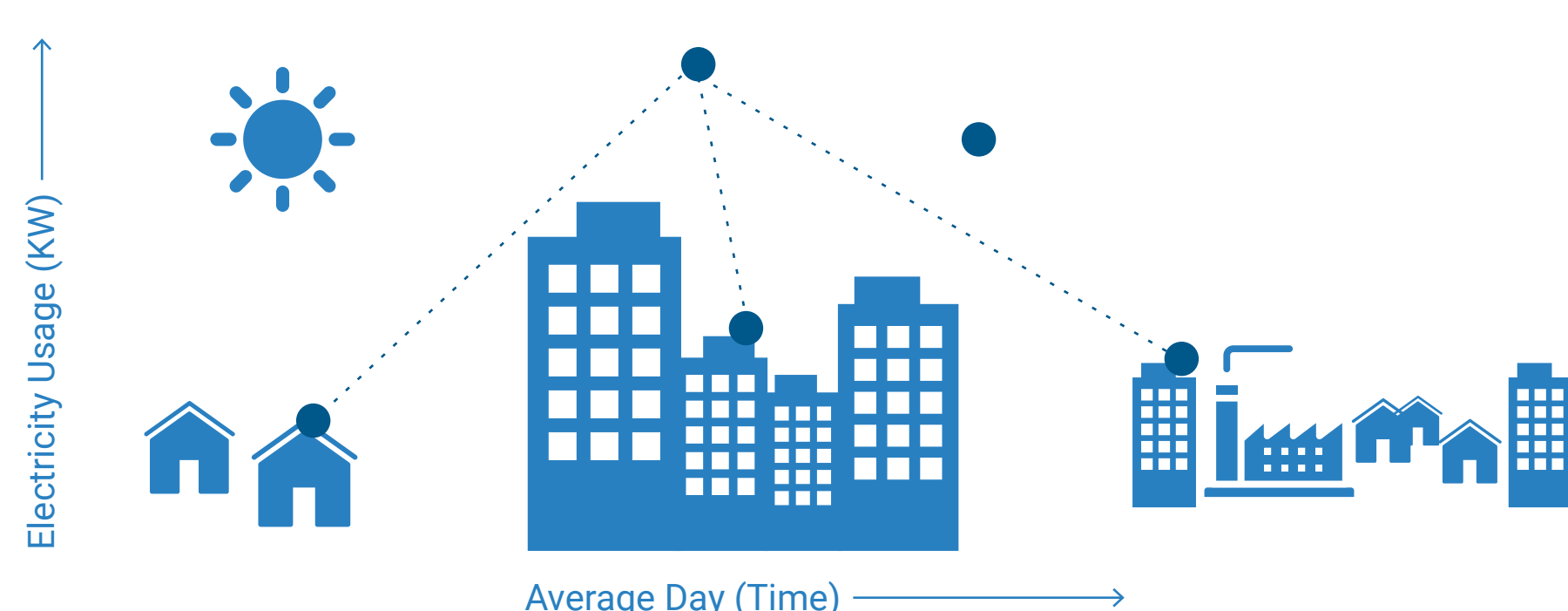
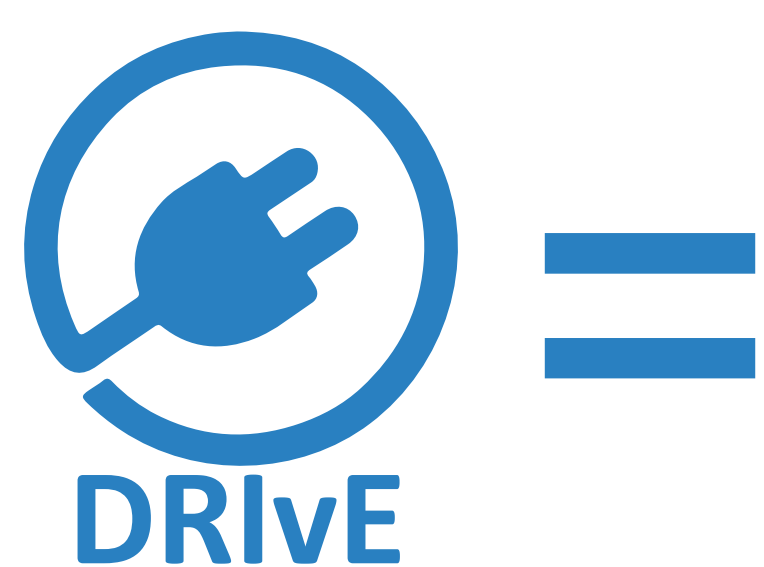
COMSA Head  
office, in Spain



**COMSA**  
CORPORACIÓN

**CARDIFF**  
UNIVERSITY

**PRIFYSGOL**  
**CAERDYDD**



Total Energy Costs for Air Conditioning	
Without DRiVE	2.422,56
With DRiVE	1.264,12
Total Saving	48% during the testing period

It is foreseen to use COMSA data communications infrastructure installed throughout the DRiVE project for using it in other research projects as well as to be interfaced with an aggregator agent to test further about offering flexibility to the grid as soon as markets will be eventually ready in Spain.

**Promoter:** Building Owner

- Office Building

The COMSA Headquarter is a building located in the center of Barcelona, composed of 6 floors where 250 employees have their offices. It is considered as a smart building since there are different monitoring systems (smart-meters, weather station, humidity and temperature sensors) and controllable loads.

**Focus was on:** The different air conditioning systems and their interaction for the users comfort. The collection and use of a big amount of data was fundamental to develop the best possible use configuration (data-drive forecasting models . Model Predictive Control)

**Objectives:** Improving the efficient use of the air conditioning system, reducing the energy consumption and the electricity bill.

**Assets:** 77 individual air conditioning internal units (for a total of 180kW installed); one 14kWh battery

**Method:** Hybrid, cyber-physical emulation

**Results:** The DRiVE solution helped to i) Reduce energy peaks ii) Reduce maximum power iii) Improve thermal comfort by maintaining temperatures. In economic terms, the use of the DRiVE solution allowed COMSA to almost halve the cost of the electricity needed to run the air conditioning systems inside the offices.

