# OdS: SUSTAINABILITY OBSERVATORY

*Online Discussion*: Awareness Raising and Behavioural Change for Energy Efficiency in Buildings
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VILA NOVA DE GAIA
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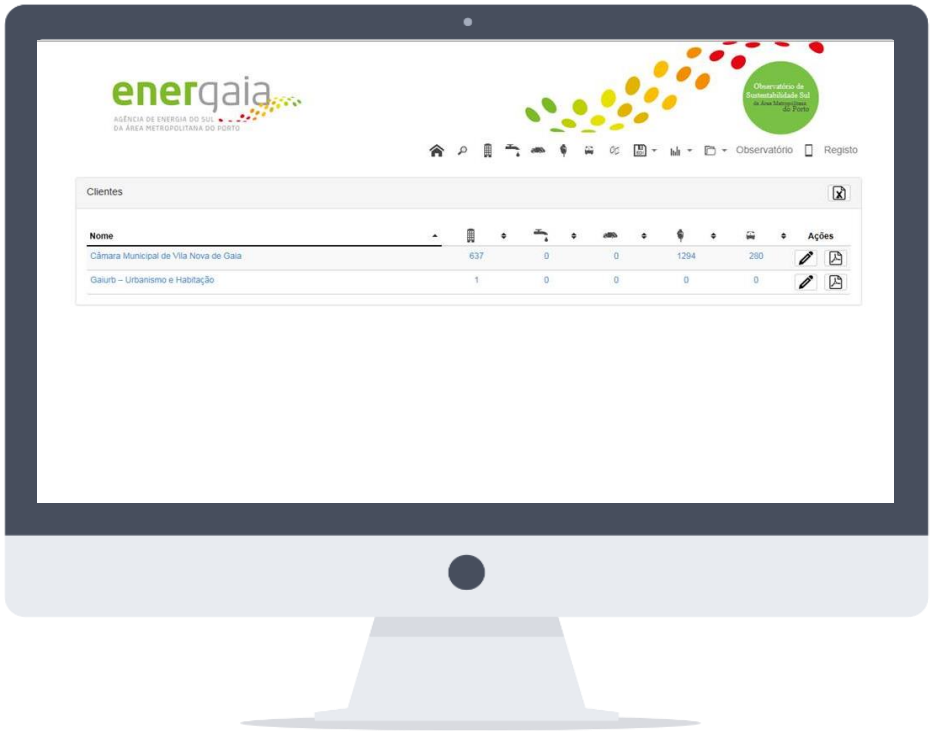
Interreg Europe
European Union | European Regional Development Fund

# **OdS:** SUSTAINABILITY OBSERVATORY

## What is the sustainability observatory?

- *Web-based* software platform
- Monitoring and energy management of municipal infrastructures
- Created for municipalities and based on their management needs
- Users: Technicians from municipalities and organizations from the municipal sphere




http://www.observatorio.energaia.pt/

# **OdS:** SUSTAINABILITY OBSERVATORY

## General description

### Promoter

Energaia
Regional Energy Agency

### Supporting Entities

Six associated municipalities and Irradiare, an energy efficiency consultant

### Scale

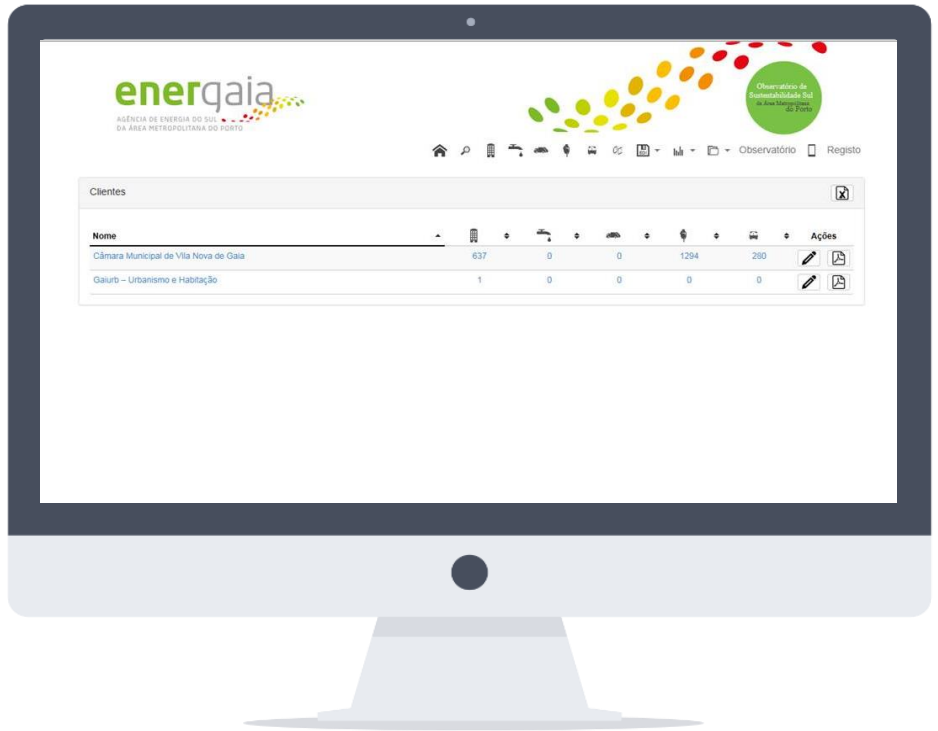
Inter-municipal/regional
5500 buildings
4000 street lighting networks
1000 municipal fleet vehicles

### Financial Supporting

ON2 – North Portugal Regional Operation Programme 2007-2013

### Implementation

2012 – Continuous improvement



# **OdS:** SUSTAINABILITY OBSERVATORY

## Functionalities

# **OdS:** SUSTAINABILITY OBSERVATORY

## Objectives

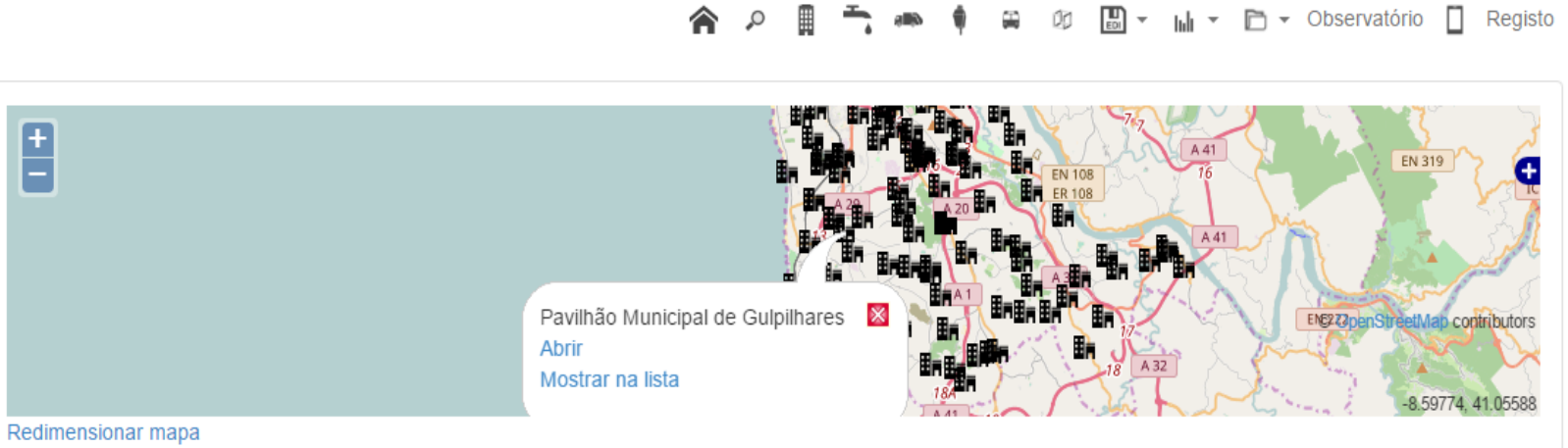
- Contribute to the sustainability of the territory
- Providing monitoring tools
- Facilitate energy management in municipal infrastructures
- Simplify technical and administrative processes
- Reduce energy consumption, costs and $CO_2$ emissions

# **OdS:** SUSTAINABILITY OBSERVATORY

## energy benchmarking for municipalities

# **OdS:** SUSTAINABILITY OBSERVATORY

## real time monitoring | real time analytics




| Designação do edifício | Município | Rua | Coordenadas GPS | Ativo | Ações |
|---|---|---|---|---|---|
| AECS (Rua Bairro Pinto Silva, 113 - Pedroso) | Vila Nova De Gaia (Continente) | Rua Bairro Pinto Silva | 41.07444 , -8.58054 | Sim | |
| AL CEDRO | Vila Nova De Gaia (Continente) | Alameda Cedros | 41.10916 , -8.61079 | Sim | |
| AL MOSTEIRO | Vila Nova De Gaia (Continente) | AL MOSTEIRO | 41.07444 , -8.58054 | Sim | |

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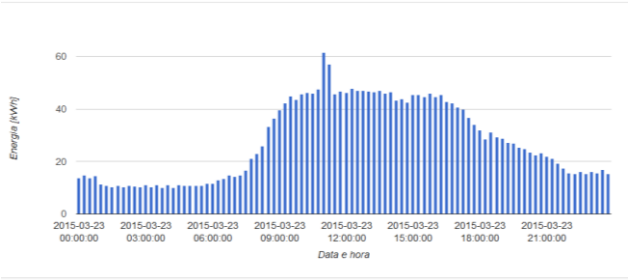
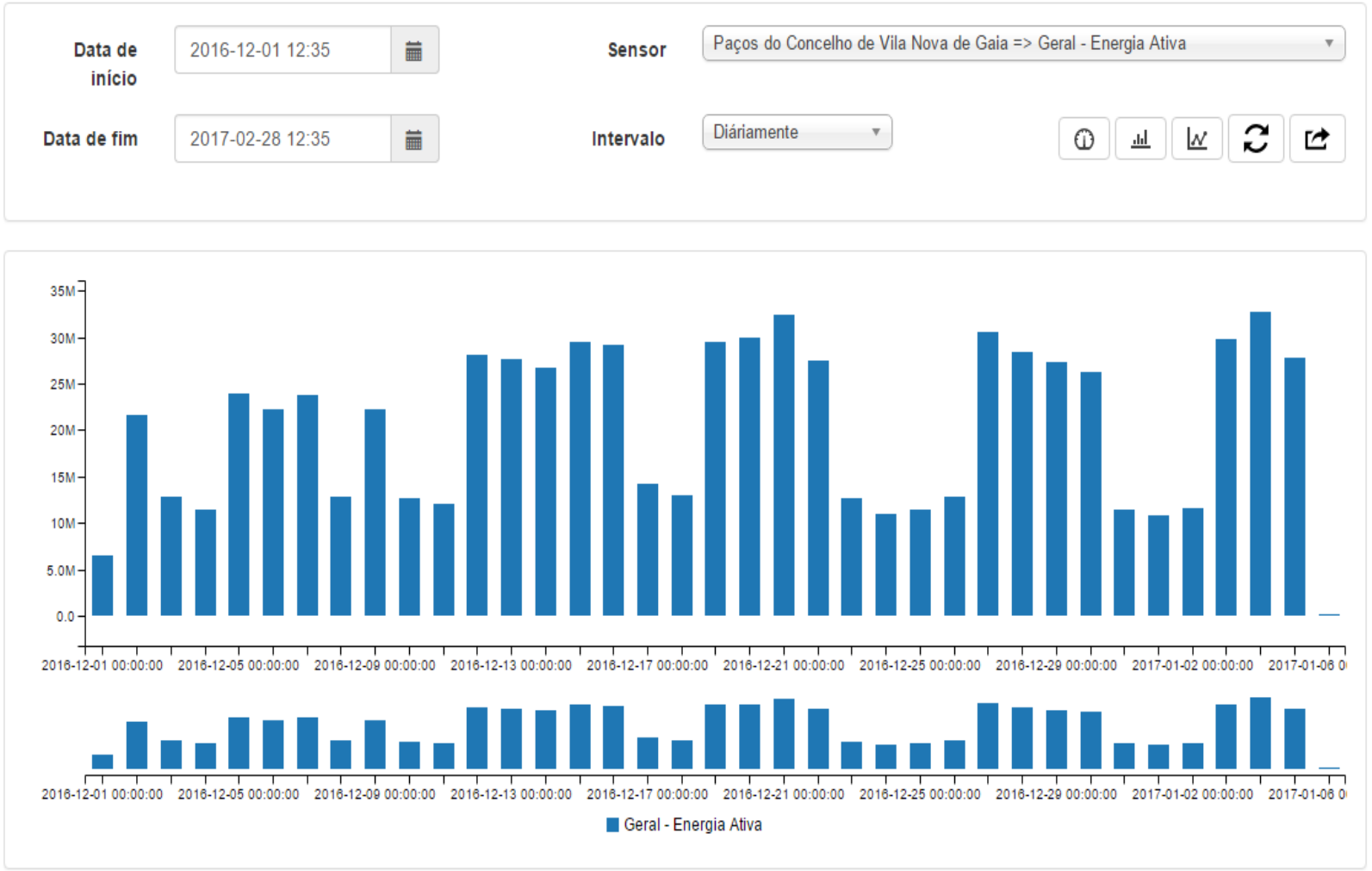
## real time monitoring | real time analytics

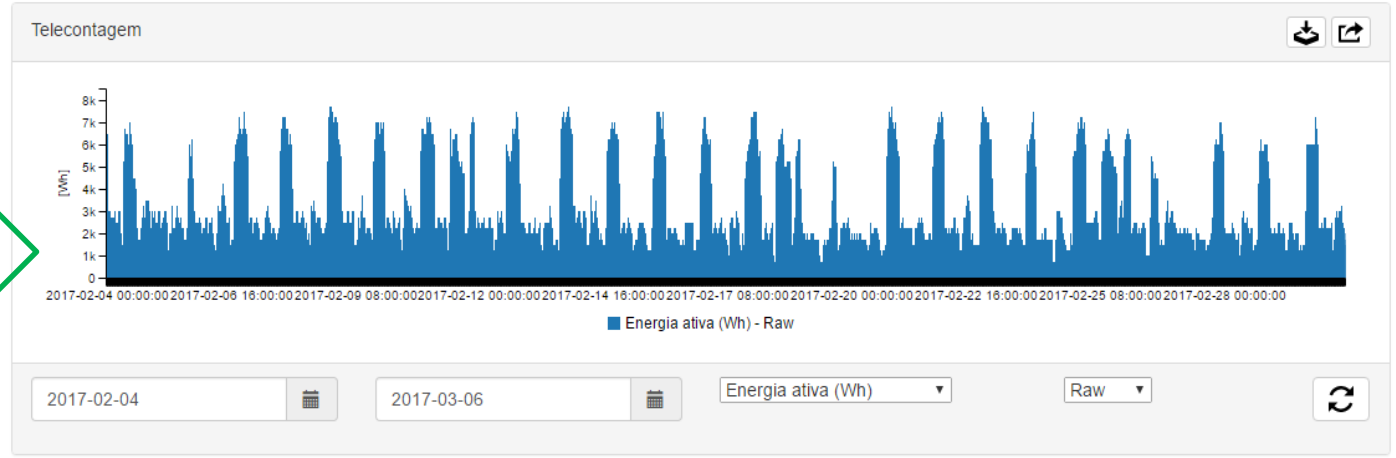


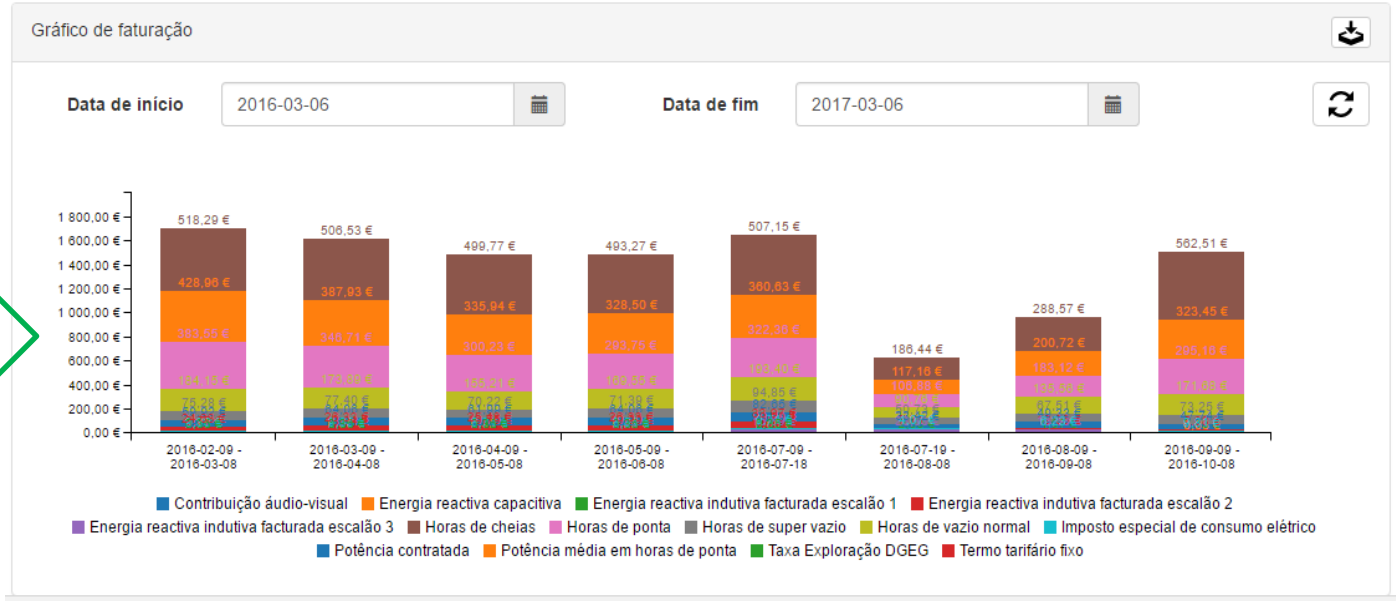
# **OdS:** SUSTAINABILITY OBSERVATORY

## information on billing and electricity consumption

Utility meter (invoice)



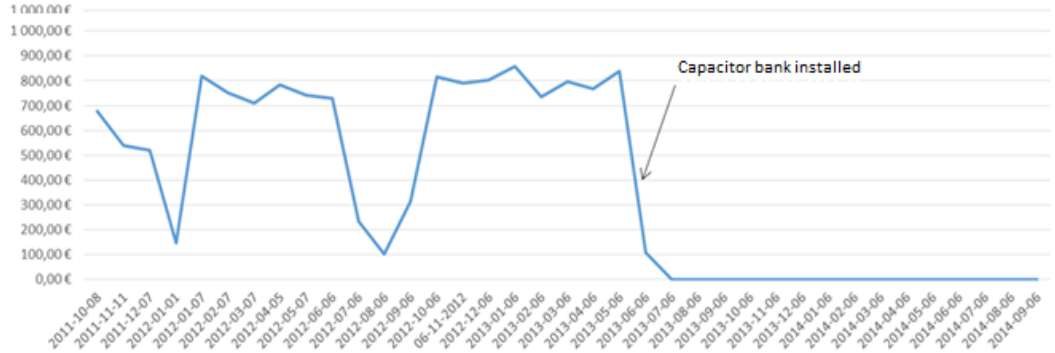

Costs of the last invoices



# **OdS:** SUSTAINABILITY OBSERVATORY results

example: use the information obtained in the file to validate the implementation of efficiency measures

## Installation of capacitor banks in municipal buildings for power factor compensation




Reactive power cost in a building with a capacitor bank installed

And

## Reduction of the number of electricity contracts

Annual savings: € 30,000 in municipal energy invoice

## Identification of energy conservation measures

Annual savings: 790 MWh | 265 t $_{CO2}$ | € 180,000

# Thank you!

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