



ZAAANSTAD

Image: City of Zaanstad



SANT CUGAT

Image: City of Sant Cugat



COMUNE DI SAVONA

Image: City of Savona

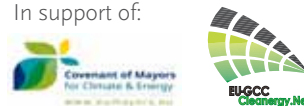
YOUR BUILDING  
YOUR CITY  
YOUR COMPANY

## PARTNERS



**OPTIMUS** was an FP7 project funded by the European Union between 2013 and 2016. It has developed a package of advanced ICT tools through the pilot cities Savona, Italy, Sant Cugat del Vallès, Spain, and Zaanstad, The Netherlands, to assess smart energy cities and improve the energy performance of buildings and building clusters.

In support of:



Endorsed by partners from:



[www.optimus-smartcity.eu](http://www.optimus-smartcity.eu)  
[info@optimus-smartcity.eu](mailto:info@optimus-smartcity.eu)



This project has received funding from the European Union's Seventh Programme for Research, Technological Development and Demonstration under Grant Agreement No. 608703.

Cover image: City of Zaanstad



# OPTIMUS

OPTIMISING ENERGY USE  
IN CITIES THROUGH SMART  
DECISION SUPPORT SYSTEMS

## OPTIMISING ENERGY USE BEYOND BUILDING ENERGY MANAGEMENT SCHEMES

**OPTIMUS** provides a set of advanced web-based consulting tools (Decision Support System – **DSS**, Smart City Energy Assessment Framework – **SCEAF** and **TRACKER**) for any building manager, city or company wanting to monitor and optimise energy use in buildings and implement effective Sustainable Energy Action Plans (SEAPs) in support of the Covenant of Mayors.

The key benefits of the **OPTIMUS** package are:

- Monitoring and optimizing the energy efficiency and renewable energy performance of buildings / districts / the city.
- Support of short-term decision-making on energy planning to reduce energy consumption, CO<sub>2</sub> emissions and energy cost beyond BEMS **up to 15-20%**.
- Implementation of state-of-the-art ICT technologies and analytics for an integrated and systemic energy optimization.

## INTEGRATING ENERGY RELATED DATA TO SUPPORT DECISION-MAKING IN BUILDING OPERATION

**OPTIMUS** works simultaneously with existing energy management systems, integrating five data sources (weather conditions, buildings' energy profiles, behavior/occupants' feedback, energy prices and energy production) in order to propose short-term action plans for energy managers.



## PREDICTION MODELS TO OPTIMIZE THE PERFORMANCE OF PUBLIC AND PRIVATE BUILDINGS

Optimise the energy use in cities' buildings through their interaction with the energy systems. The **OPTIMUS DSS** offers the following **measures**.



**Scheduling and management of the occupancy**



**Scheduling the set-point temperature**



**Scheduling the ON/OFF of the heating system**



**Scheduling the photovoltaic (PV) maintenance**



**Scheduling the sale/consumption of the electricity produced through the PV system**



**Scheduling the operation of heating and electricity systems towards energy cost optimization**



**Management of the air side Economizer**

RATE YOUR THERMAL SENSATION AND SAVE ENERGY

## OPTIMUS IS AN OPEN SOURCE DECISION SUPPORT SYSTEM AND ACCESSIBLE FREE OF CHARGE FOR CITIES AND COMPANIES

The **OPTIMUS** solution package was funded by the European Union and is available for free.

Besides having access to the technological solutions, you can get more additional benefits from the **OPTIMUS** expert team services:

- Consultancy and support services to adapt **OPTIMUS** to your specific case;
- Install of the **OPTIMUS** (DSS) infrastructure on your premises (additional third party license fees might apply).

In both cases, **OPTIMUS** experts can perform the installation, customization and maintenance of the **OPTIMUS** (DSS). In the client owned option, hardware (if any) and DSS software maintenance will remain a responsibility of the client.

Additionally, **OPTIMUS** provides an upgrade and maintenance option on a year to year basis.

These services are charged in accordance to their need for engagement. Please see the website for further information or contact us: [info@optimus-smartcity.eu](mailto:info@optimus-smartcity.eu)

PLUG-IN OPTIMUS IN SEVERAL BUILDINGS AND SCALE BENEFITS ON A DISTRICT OR CITY LEVEL