

The **server-side technology for spatio-temporal processing** of geographical data and management of sensor data through interoperable standards, developed in the context of the ICT-PSP project BRISEIDE, will be extended to support **interoperable definition of alert mechanisms based on SAS (Sensor Alert Service) standard**.

The CityGML compatible 3D client which is being developed in the context of the ICT-PSP project i-SCOPE. This will be extended to support the **CityGML Application Domain Extension (ADE)** for energy performances of buildings that will be delivered by SUNSHINE.

An **application for desktops and mobile devices (App)** for surveying of public illumination systems which has been commissioned by GL to GRAPHITECH within a project promoted by the Energy Agency of Autonomous Province of Trento, Italy. This will be extended to allow **remote control of remote power systems** via interoperable standards from Open Geospatial Consortium.

SUNSHINE

Smart Urban Services for Higher eEnergy Efficiency

SUNSHINE delivers innovative digital services, interoperable with existing geographic web-service infrastructures, supporting improved energy efficiency at the urban and building level. Specifically, SUNSHINE delivers a smart service platform accessible from both a web-based client and from an App for smartphones and tablets.

In particular, the SUNSHINE platform will allow:



Automatic **large-scale assessment of building energy behaviour** based on data available from public services (e.g. cadastre, planning data etc.).



The previous assessment will be then used, together with **localised weather forecasts** available through interoperable web-services, to ensure **optimisation of energy consumption of heating/cooling systems** through automatic alerts that will be sent to the SUNSHINE App installed on the smartphone of the final users.



Lastly SUNSHINE will ensure **interoperable control of public illumination systems** based on Automatic Meter Reading (AMR) facilities remotely accessible, via interoperable standards, from a web-based client as well as from an App for smartphones or tablets.



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SUNSHINE



Target users and their needs

The SUNSHINE technology will be eventually piloted in the context of **9 sites across 5 countries**, specifically:

- **Planners and Public Administration (PA)** officers will use SUNSHINE to extract analytical indicators necessary for the definition of energy saving policies for the existing public buildings asset and to define energy pre-certification mechanisms.
- **Building managers**, and **citizens** alike, will use SUNSHINE to reduce waste of energy caused by heating/cooling systems unnecessarily running in weather conditions that do not require it. Through alerts, customised for each specific building, delivered through the SUNSHINE app, that inform the users on how to improve performances of cooling/heating settings, for best consumption/comfort ratio. Finally, **building managers** will also use SUNSHINE to optimise energy use of large-scale optimisation of public illumination network.

Pilots

The SUNSHINE technology will be eventually piloted in the context of **9 sites across 5 countries**, specifically:



Italy: 20 public buildings in Ferrara; 60 technical buildings across the Trentino Province; 4 public illumination lines in the centre of Bassano del Grappa (Italy) (total of 200 illumination units); 5 public illumination lines in the city of Rovereto (Italy) (total of 80 illumination units); 3 building complexes in the area of Val di Non (Italy) and their outdoor public illumination systems.



Austria: 1 public multipurpose building in Schwechat and the public illumination systems in its surroundings.



Croatia: 10 buildings owned by HEP ESCO in Zagreb and Split and the illumination systems in the surroundings of one of HEP ESCO's power plant (50 illumination units).



Greece: five buildings in Lamia owned by Technological Educational Institute of Lamia.



Malta: 2 buildings owned by Malta College of Arts, Science and Technology in Paola.



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