

Case Study

Smart City

Sabinov

Smart City Dashboard
Lighting Control
EV charger
Meteo Sensors



Pilot project - Case study

Smart lighting with EVs charging and air quality sensors in Sabinov, Slovakia

Before: The city does not have a smart city platform

The public lighting is centrally controlled at the level of switchboards that allow to remotely turn on/off whole lines of street lamps. There is not a single charging station for electric cars in Sabinov. This does not allow locals without their own garage to buy and use an electric car. No monitoring of environmental data is established.

Today: Sabinov is starting to implement smart technologies

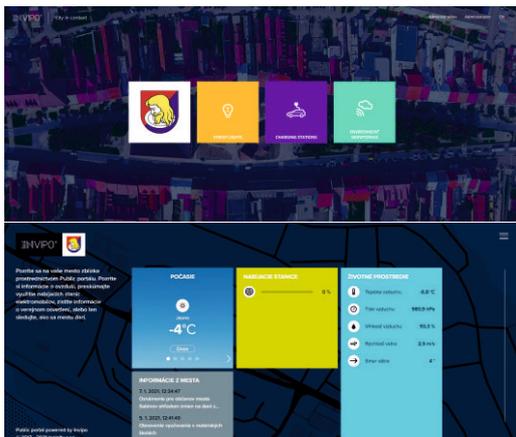
Pilot project is installed in the public parking lot on 17th November Street near the residential zone and the wall of the medieval fortifications of the city. This car park is used by locals as well as visitors to the center (as parking options in the historical center are limited).

New luminaires with SEAK smart lighting control and integrated EV chargers are installed on the public parking lot. Thanks to this pilot project, the citizens and visitors can charge their electric cars. The city gets accurate data about energy savings achieved by controlling the light intensity. New lamps are equipped with VAISALA sensors to monitor the environmental data including air pollution.

All smart city technologies installed in this pilot project are managed centrally thanks to INVIPO smart city platform. This platform links data from different technologies and systems into a holistic view and offers efficient management of city technologies to the town hall. The INVIPO platform offers Sabinov citizens access to public data from sensors and information about the current occupancy of charging stations.



Main components of project Smart City Dashboard



Invipo Smart City Dashboard smart.sabinov.sk offers citizens always up-to-date information about news from city life, weather and environment monitoring, occupancy of charging stations and data about street lighting.

City can publish information from other smart technologies about parking lots, traffic situation, public transport or waste management to this dashboard.

Seak Smart Lighting Control

SEAK SMART is a reliable street lighting control system that uses existing power lines for communication. Besides lighting, SEAK controls provide connectivity also for electric vehicle chargers and other IoT devices.



The control unit SEAK LUMiMASTER SLC-NOM and the powerline communication unit LUMiBOX SLM-160 were installed in the electric feeder pillar. This allows communication of all devices over electric lines. Inside of the luminaires there are dimming modules LUMiNODE SDM-DIG-IP.

EV charger integrated to lamp pole

We have installed 2 pcs of LUMiCHARGER LP6 - AC charger, 22 kW and Mennekes (Type 2) connector with load balancing function. Lighting always has priority, the rest of the power capacity is automatically evenly distributed among charging cars according to their charging needs.

Drivers just sign in and start charging using an app at charge.sk.



Vaisala environment sensors

The WXT530 is a series of weather instruments that provides 6 of the most important weather parameters: air pressure, temperature, humidity, rainfall, wind speed and direction through various combinations.

The AQT420 provides data about air quality: concentrations of CO₂, NO and dust particles. This provides the town hall as well as citizens with data that they can act upon.

