

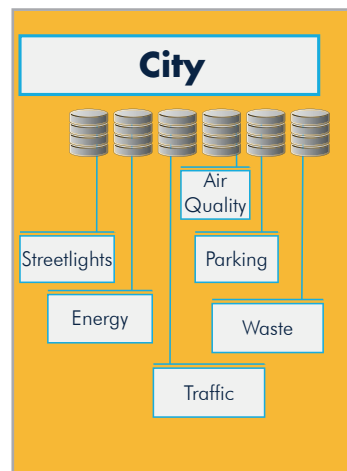


## Smart Light Control

The cities are facing problems due to the growing urbanization, and thus they need to accelerate the development of smart solutions to handle those problems of urbanization, climate goals and energy crisis. To provide an effective decision support tool to support decision makers, **CAPELON** provided a Connected Streetlights solution in combination with **Snap4City** horizontal smart city platform, thus providing the tools for efficiently overcoming the data silos problem.

**CONNECTED  
STREETLIGHTS  
SOLUTION  
EXPLOITING  
SNAP4CITY  
PLATFORM**

**SMART  
APPLICATION  
FOR  
MONITORING  
AND CONTROL  
STREETLIGHT  
NETWORK**



### Problem: Silos and Decision Making

- Technologies are **DISCONNECTED**
- Technologies are **MANAGED SEPARATELY**
- Separate budgets are assigned to smart city projects within municipalities and **HIGHER CAPEX**
- Separate municipality departments, decentralised decision-making, **OVERLAPPING OR CONFLICTING GOALS**
- **FRAGMENTED CITY DATA** from different technologies
- **NO INTEROPERABILITY** of technologies

In **Helsingborg**, the main application enabling connecting sensors is the city-wide connected streetlight network. It provides both the power and infrastructure to connect millions of sensors throughout the city. In order to make possible to exploit cross data information horizontally across city department the **Snap4City** solution provides an important role. In Helsingborg, several trials have been performed, and the results have confirmed their conclusion to use city wide mesh network provided by the streetlights to connect standard sensors via the streetlights or via gateways allowing standard sensors to be connected to the city mesh network. Standard BLE sensors for humidity, temperature, movement, magnetic and presence detection were connected and carried by the streetlight mesh and processed for different purposes in the **Snap4City** platform.

### Smart and Connected Streetlights and Snap4City Accelerate Smart City Development

#### TECHNOLOGY

- **IoT technology** allows to cope with increased number of streetlights connected
- **Any standard** promotes a wide use of connected streetlights
- Connected streetlights provides an **IoT Device infrastructure** for a smart city

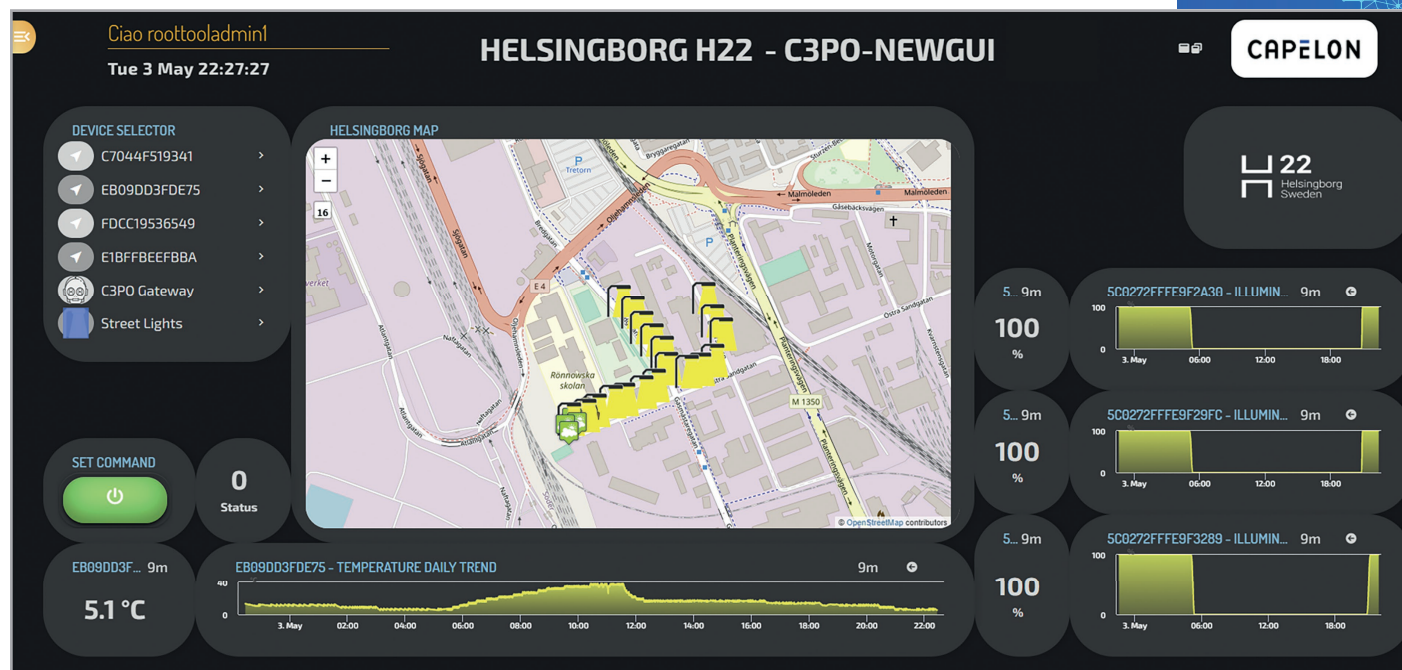
#### MUNICIPALITIES

- **Urbanization** and the smart city IoT platform solution promote **smart street lighting**
- **Savings** through higher city operational efficiency and lower energy costs
- **LED luminaries** and standard for **smart luminaries** exploits massively connected streetlight

#### EFFICIENT CITY

- **Efficiency** in the city benefits to the **economy**
- Copes with **growing & aging** city population
- Increases **quality of life**
- Enables **direct government** with citizens
- Copes with **environmental** concerns

The Connected streetlights is not only for providing light, but also an important pillar for smart cities and IoT. If the right connectivity is used for the streetlights, then it allows connecting millions of sensors throughout the city. However, to make effective use of sensor data, the vertical streetlight management system is often not enough, and there is where Snap4City is stepping in and providing a very important role to provide a horizontal smart city operational system and as well, very important, a collaboration platform. That in combination with standards like FIWARE and TALQ, CAPELON and Snap4City can provide a real solution to help cities to accelerate their smart city development and thus have a chance to meet the Sustainable Development Goals, SDG, challenges arising with the quickly growing urbanization.



<https://www.snap4city.org/dashboardSmartCity/view/Baloon-Dark.php?iddashboard=MzQxMw==>

During the energy crisis this year a lot of cities are forced to switch off their lights. The cities that have invested in connected streetlight can instead dim down the lights, hence saving energy and maintaining traffic safety and allowing citizen to feel safe. Furthermore, with sensors and IoT Apps of Snap4City the balance between energy saving and maintaining safety can be even further optimized by providing light according to the real demand based on location and situation.

The CAPELON solution provides all the benefits with a connected streetlights as well as providing the possibility to connect millions of sensors and the Snap4City providing the solution to really use these data for monitoring and control. Of course, Snap4City also providing the possibility to integrate other systems like AXIS cameras that can be used to further dynamically control the streetlights in CAPELON's solution, and any legacy solution the city has in place.

**Extended version accessible from:** <https://www.snap4city.org/816>

**Contact:** <https://www.snap4city.org>

**Partners:** CAPELON (<https://www.capelon.se/>)

# CAPELON