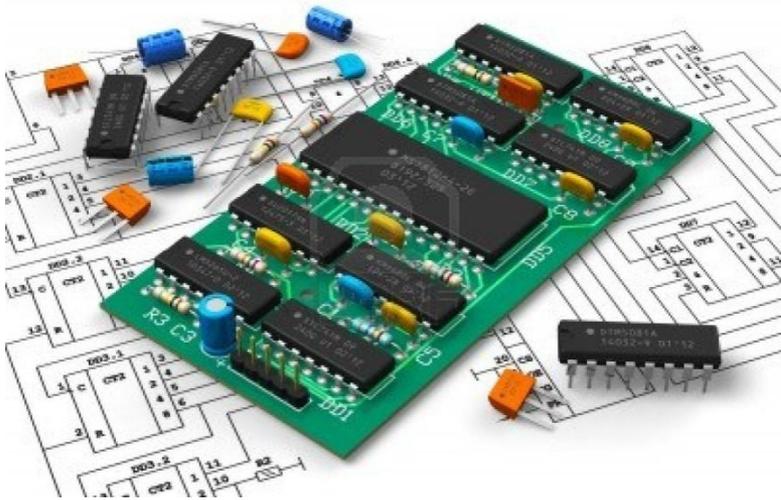


# Developing Applications



## GREENLIGHT NETWORK

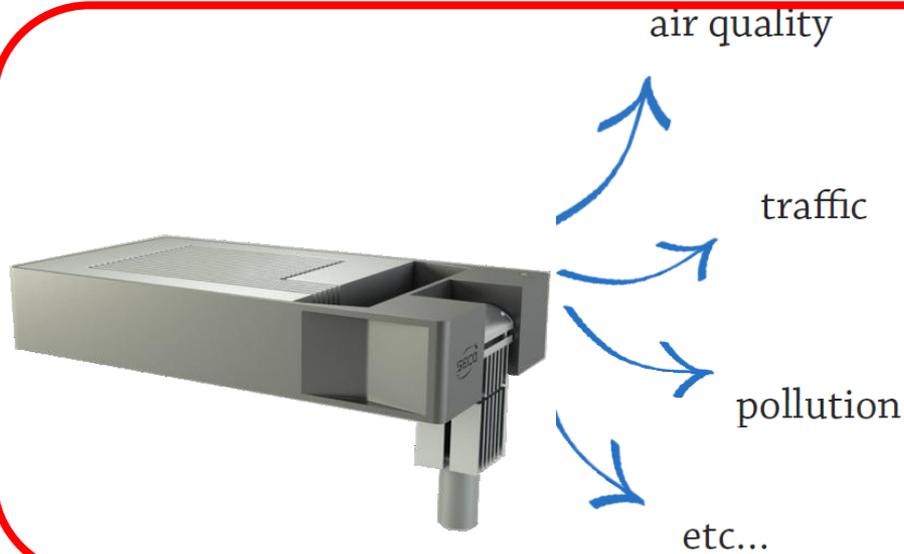


Consists in the **development of a network of street illumination devices**, based on LED technology and **wireless integrated modules** for network configuration, monitoring, providing multimedia and connectivity services.



Green Light Network does not require **any invasive and expensive installation** since only the head of the street lamp **can be installed onto already existing electricity poles** in urban and extra-urban areas.

# Green Light Network



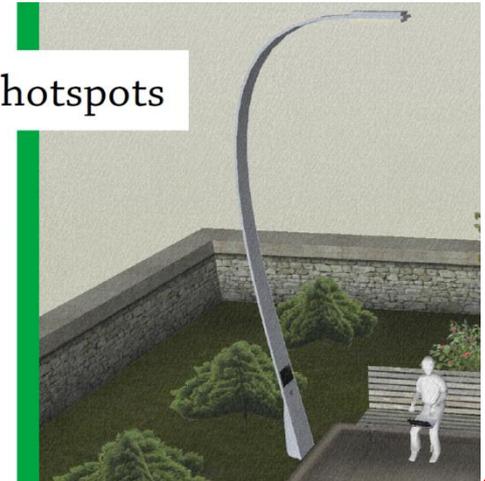
Thanks to embedded **sensors**, Greenlight Network street lamps can continuously gather **environmental data** (quality of the air, traffic condition, pollution, etc) **and send them to the related research and analysis centers.**

With no need for further installations, Greenlight Network **can be used as an SOS point** (e.g.: in case of car accident or other emergencies), directly contacting the main public security forces.



WiFi hotspots

Each single lamp post is provided with **wireless connection**, enabling a nomadic type of connection to the **urban internet network**, (WiFi Area).



# Developing Applications

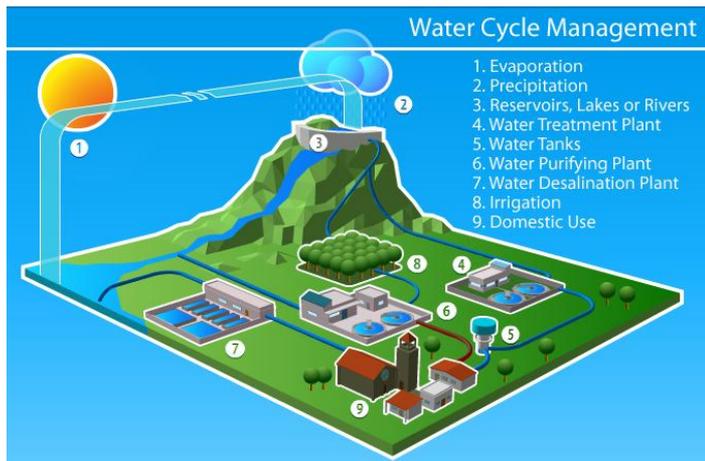
The history of human beings is closely tied to water.

Fresh water has been a **key factor in the emergence of civilizations**, not only for direct human consumption but also for **agriculture** and **animal** husbandry.

The great civilization of the ancient world sprung up around **abundant water supply**.

Rivers were vital to **irrigation** and the growth of commerce.

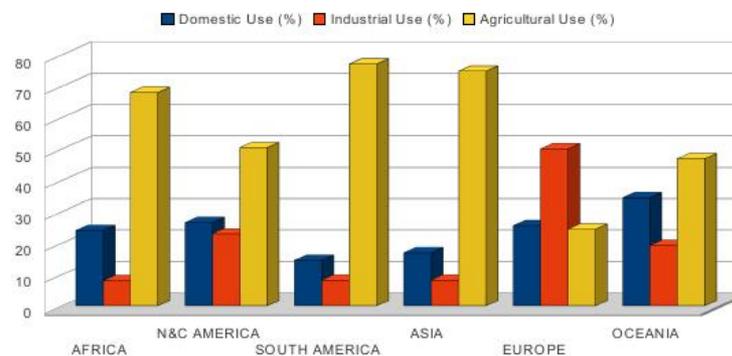
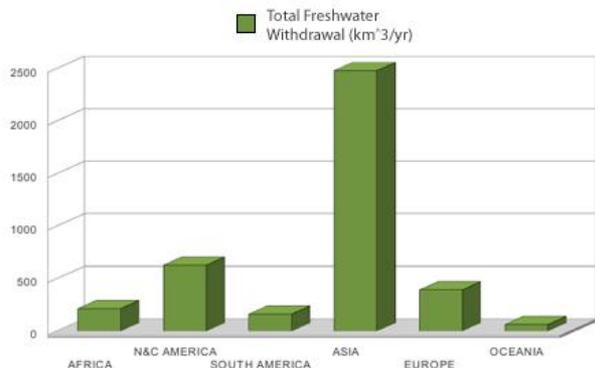
Much later, **industrialization** and its expansion were also dependent on water supply and the use of **waterways**.



**Integrated Water Cycle Management** is the way for local water utilities to manage their water systems to **maximize benefits** to the community and environment.

This cycle starts with **precipitations** that allow **rivers, lakes** or reservoirs to contain water. Next, this water is **treated** and stored for later domestic or agriculture use.

Finally, water is treated to be **purified** before being returned to the environment.



# Smart Water Solution



**Wireless Sensor Networks (WSN)** can help to **monitor** environmental conditions and **water quality**, allowing an easier, faster and cheaper data logging, which will lead into a better utilization of resources of each organization or government.

As a **result** of this project, water quality and water cycle can be **monitored in real-time** in order to check that all the elements within the network of sanitary sewers are working properly and will be **able to react against an unexpected situations**.

Therefore, a big amount of money can be saved by **minimizing the effects** of a natural disaster and by preventing parts of the water network from breaking.



The **FluctuS** system can be used for:

- **Quality control** of water in the sea and rivers in order to monitor its chemical composition and suitability for fauna and drinkable use.
- Monitoring of **water levels** in rivers or lakes.
- Monitoring **water flows** through pipes to **prevent water wastage**.