# Actility

# Success Story
- Smart City -

## KPN & SMARTLOG

### SmartLog uses LoRa to make Dutch canals smart

*Increase water level control system efficiency to enhance public security*

Many Dutch cities were built around canals. In Amsterdam alone, there are over 100 kilometers of waterways and more than 1500 bridges. The Ministry of Infrastructure and Environment (the Rijkswaterstaat), which supervises their construction and maintenance, needs state-of-the-art IoT technologies and tools to prevent flooding.

Smartlog and KPN helped the Dutch Ministry upgrade their network to be able to control the water level in several canals in real time and from a distance. Leveraging sensors already in place but based on an old radio protocol, Smartlog transformed them into intelligent devices. How did this innovative M2M solution provider do that? It connected them to the KPN LoRa network, powered by Actility, which allows sensor data to be visualized by their application.

> **Visualizing the sensor data from the canal results in extremely valuable insights for the Dutch Ministry of Infrastructure and Environment. Together with KPN and Actility, Smartlog is proud to help them gain insight into this important sensor data.**
>
> *Joris Van der Elst , Business Developer at SmartLog*

### Global and detailed insight into water levels

After a successful pilot project, the Rijkswaterstaat is now implementing a LoRaWAN solution throughout the Netherlands to obtain a global and detailed insight into water levels in the canals. This low-cost installation will give them much more information than ever before, which will improve efficiency and quality. At the same time, other usages are being imagined by the Ministry to launch new projects, such as connected buoys or remote dike monitoring.

### Upgrade an old technology to LoRaWAN

Water levels in the canals require constant supervision to prevent flooding of the housing and stores along its quays. This monitoring by the Rijkswaterstaat is extremely time consuming. Smartlog, the innovative IoT applications provider, came up with an easy monitoring solution to address this issue.
In September 2016, it started with a pilot in which a single canal in Amsterdam was equipped with sensors. The sensors collect data on water levels, and are monitored remotely.

The Smartlog data platform sends alerts and opens sluices to reroute water flows and prevent floods.

The Netherlands is the first country in the world to have a nationwide LoRaWAN network for Internet of Things (IoT) applications. This KPN network is powered by Actility ThingPark, which enables the connection, management and operation of a wide range of devices and applications. For Smartlog and the Rijkswaterstaat, the solution exceeded all expectations.

The LoRaWAN network is unique in its ability to connect low-power sensors to applications over long-range wireless links. The sensors collect large volumes of data which is then processed and routed by the advanced Smartlog IoT platform. The platform manages the communication between sensors, base stations and applications. It also provides tools for the operator to manage and optimize its network.

**kpn**

**SmartLog.com**