



# Birdz

SEMTECH®

LoRa®



## Leading the Digital Transformation of Water Management

Discover how Birdz, a leader in smart water management, leveraged Semtech's LoRa® technology to transform water utilities across France. This case study highlights the deployment of millions of smart water meters, enabling remote monitoring, leak detection and data-driven grid optimization—resulting in significant water savings and improved network efficiency.

## QUICKFACTS

### Company

Birdz

[birdz.com](http://birdz.com)

### Customer Profile

Birdz, a subsidiary of Nova Veolia, is a leading European smart water management company with nearly two decades of experience. They deliver advanced remote metering, leak detection and data analytics solutions powered by IoT technologies like Semtech's LoRa devices. Birdz partners with utilities across France and Europe to improve water network efficiency, reduce losses and drive sustainable resource management through digital transformation. Their expertise enables better operational performance and enhanced service quality for customers. Birdz is recognized for pioneering innovative technologies that help utilities tackle complex challenges in water distribution and management.

### Objectives

- Replace labor-intensive manual water meter reading.
- Reduce water utility consumption and waste.
- Provide actionable insights to utility operators, municipalities and end-users.

### Results

- Increases operational efficiency by wirelessly measuring usage data.
- Instantly detects failure points and leaks in piping networks.
- Monitors total water footprint at a granular level.

### Products and Services

- LoRa® devices delivers long range, low power sensing capabilities.
- LoRaWAN®-based network provides end-to-end security encryption.
- Wirelessly connected sensors communicate data to the Cloud.



“ A smart meter can simply index volumes of water for easy billing. It can also quickly detect all kinds of problems within a water supply network.



**Geoffroy Duplessis,**  
*Deputy CIO, Birdz*

## INTRODUCTION

### The Rapid Growth of Smart Utility Metering

Globally, the proportion of smart meters will soon exceed half of all meters shipped annually and represent a market value over \$2 billion.

Implementing a smart metering infrastructure allows utility companies the ability to remotely collect data and streamline operations. Solutions leveraging noncellular low-power wide-area networking (LPWAN) technologies, such as Semtech's LoRa® devices and the LoRaWAN® open protocol, are expected to represent up to 20 percent of all smart meters deployed by 2026, according to ABI Research. Smart metering is one of LoRa devices' most successful market applications due to its unique long range, low power capabilities that offer several advantages for battery-powered meters.

### France's Leader for Smart Water Management

Birdz is a branch of Nova Veolia and has a key role in pioneering smart solutions, such as the remote metering of energy consumption and waste management applications for smart cities, which is a new key market for Veolia's business entities.

With 19 years of experience in smart water management, Birdz provides water utility operators with a wide range of services, including traditional remote index reading, billing support, leak detection, potential fraud monitoring, subscriber consumption modeling, and forecasting.

Birdz boasts a heritage evolving from a proprietary radio network operator to being one of first companies to partner with Semtech and leverage LoRa devices and the LoRaWAN protocol in the deployment of smart meter projects across Europe.

“ Semtech’s LoRa devices is perfectly suited for smart water metering solutions due to its long range performance, low power consumption and low cost of implementing and operating a complete end-to-end LoRa-based metering application. ”

Xavier Mathieu, CEO, Birdz



## CHALLENGE

The Métropole de Lyon is responsible for the drinking water supply and sanitation services of its more than 2.2 million inhabitants within the city and surrounding area. Eau du Grand Lyon serves as the public water service provider defining strategy, determining the price of water and managing the day-to-day delivery of safe drinking water.

In 2015, Eau du Grand Lyon implemented a smart water network consisting of 400,000 smart water G2 sensors and gateways with integrated LoRa devices. The remote water management solution from Birdz included module meters for residential and business facilities, water quality probes and noise correlator sensors on the city's piping infrastructure. The noise sensors are equivalent to a stethoscope, measuring the sound of water flowing inside pipes to easily detect and accurately pinpoint leaks.

## SOLUTION

The LoRa-enabled water sensors access the LoRaWAN network to communicate, transmit data and provide alerts. Birdz's grid management platform correlates the incoming data and displays daily calculations of several key performance indicators on a customized dashboard, including volume of water supplied, volume of water consumed, apparent losses, grid output, linear loss index (LLI), and nighttime flow.

With three million LoRa-based metering devices currently operational, Birdz announced plans to expand its metering deployments by adding an additional three million LoRa-based smart water meters throughout France. The key goal of Veolia Water, one of the world's largest water utility companies, is the remote reading of more than 70 percent of its installed water meters within the next decade.

## BENEFITS

In just four years, Birdz's water management approach generated significant benefits. Eau du Grand Lyon utilized comprehensive data from the network to identify and repair more than 1,200 water leaks within its distribution grid. Additionally, the LoRa-based infrastructure saves the city up to one million cubic meters of water annually and yielded an overall eight percent increase in water network efficiency from 77 percent in 2014 to 85.2 percent in 2018.



Birdz plans to roll out similar systems to utility providers in the city of Toulouse, a number of Paris suburbs and other communities across Europe to increase efficiency and productivity while driving down costs.

#### BIRDZ RESULTS



# 1,200

water leaks identified, located and repaired



# 1 Million

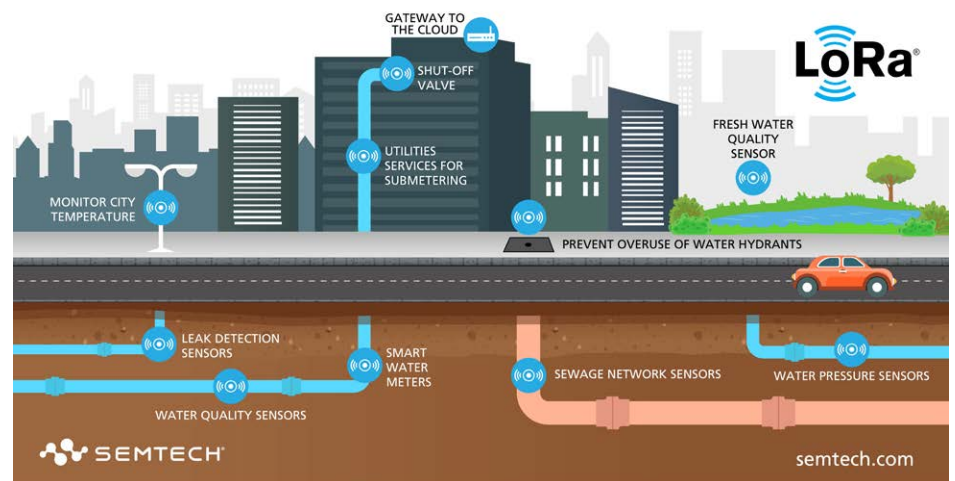
cubic meters of water saved annually



# 8%

cubic meters of water saved annually

#### FROM SENSOR TO SERVICE: DIGITAL SERVICES FOR WATER



*Birdz strives to unify all water sensors in a multiservices connectivity network to support the digital transformation of water utilities.*

#### About Semtech

Semtech Corporation (Nasdaq: SMTC) is a high-performance semiconductor, IoT systems and cloud connectivity service provider dedicated to delivering high-quality technology solutions that enable a smarter, more connected and sustainable planet. Our global teams are committed to empowering solution architects and application developers to develop breakthrough products for the infrastructure, industrial and consumer markets.

To learn more about Semtech technology, visit us at [Semtech.com](https://www.semtech.com) or follow us on [LinkedIn](#) or [X](#).

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