

# A Brighter Solution



The world's simplest, cheapest stick-and-go solution for municipal garbage



## Problem

There is a lot of talk about intelligent garbage solutions. Intelligent is great, but simple and cost-effective is better.



## Promise

A stick-and-go solution for garbage collection: stick it on, turn it on, and the sensor will send data on fill levels to our smart garbage management system. This will reduce garbage collection costs and, with the data collected, all aspects of waste pick up can be improved.



## Proof

BrighterBins is developed by SmartEnds, a Belgian company.



1. We have our own team of in-house experts covering software and hardware design, platform, and data analytics. We have made BrighterBins a simple 'stick-and-go' solution.
2. The sensor is a result of 4 man-years of engineering work. We use a modular design to keep costs low while maintaining consistent reliability.
3. A complete solution using proven industrialized components on a world-class cloud platform.

## How We Are Different?

- » 40-60% smaller than other sensors
- » Unique adjustable tunnel to fit 90% of bins
- » Can be top or side-mounted
- » Works on all IoT networks
- » Open platform to make data sharing easy
- » Lower operating costs



## Profit

Our sensors are about **30-50%** lower in price than our competition and can be customized to your needs.

## Payoff

With BrighterBins you will get the garbage solution you need.

# BrighterBins is the state-of-the-art fill-level waste bin sensor in a small and customizable design.



## Fill Level measurement

BrighterBins accurately measures the fill level of garbage bins of different shapes and sizes and reports to the backend using Sigfox, NB IoT, and LoRa.

## Advanced Data Analytics

The BrighterBins backend provides advanced data analytics to provide bi-annual reporting to municipalities and partners for better urban planning.

## Upgraded Route Optimizations

Adaptive route learning models are used to create a powerful routing system that meets the needs of local municipal drivers, optimized to their garbage collection routes, which are not addressed today by other off-the-shelf routing tools.

## Fit to all Bins (shape & size)

Adjustable sensor

Single device for wall and top mount

Fits 90% of bins

## Plug-N-Play

2 steps to install in 15 minutes

Step #1 STICK it ON

Step #2 TURN it ON

## State-of-art Antenna Configuration

In-house R&D solution

Effective wireless communication, even in closed metal bins

Optional external antenna



Unique adjustable tunnel for side and top mounts

## FEATURES AT A GLANCE

### Dimensions

Size: 129 mm (L) x 70 mm (B) x 53 mm (H)

### Features

Fill level detection in 90% of bins

Fire detection alert

Battery level read

### Supported IoT Wireless Networks

LoRaWAN

SigFox

Narrowband IoT

Wireless technologies support a range between 1,5 to 5 km radius, depending on the urban density.

### Power

Battery: Non-rechargeable lithium battery

Battery life: Up to 8 years of uninterrupted service (update rate dependent)

### Environmental

Casing: IP55/IP65/IP66/IP67

Operational temperature range:

-20 to +60 degrees C

### Remote Device Management & Diagnostics

Configurable:

1. Measurement intervals
2. Event management
3. Radio transmitting power

Ready for Integration in existing processes and platforms