

lora:LINK WASTE

TELECOMMUNICATION SERVICES FOR YOUR BUSINESS

- ✓ innovative and effective solution for waste management
- ✓ monitoring of waste bin fullness and intelligent collection route planning
- ✓ immediate reduction of operating costs and improvement of life for citizens

Understand your waste

Collecting waste in cycles according to the timetable is inefficient and un-ecological. It is because some of the collected bins are often almost empty.

Sensoneo's ultrasonic sensors placed in monitored waste bins will give you accurate overview of the amount of waste and its estimated weight.

Using an intuitive web interface and a mobile app, you can track the current amount of waste in the bins.

Cost optimization and a satisfied citizen

lora:LINK WASTE solution helps to optimize waste logistics, contributing not only to lower operating costs but also to improvement of the quality of life for citizens.

Collecting waste according to real needs minimizes the amount of executed collection routes, fuel consumption, vehicle wear and the necessary working time.

The result is a reduction in emissions, noise and smells, more efficient street traffic and effective minimization of problems with overfilled, overturned or damaged waste bins.

Modern and secure communication network

Data from sensors are sent through Slovanet's **LoRaWAN** network, which is designed for **Internet of Things**. Features of the network allow to send small volumes of data securely over long distances, without the use of standard Internet or mobile networks.

Power consumption when using LoRaWAN network is minimal, so the battery of the sensor can last for several years.

Specifications

- a solution in the SmartCity concept
- intelligent monitoring of waste bin fullness
- optimization of waste collection logistics and immediate reduction of operating costs
- automatic alarms by overturned and burning bins
- transparency of waste management for the public
- data are sent securely through Slovanet's LoRaWAN network
- flexibly scalable solution with the ability to add additional sensors at any time



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Intuitive app for communal services and citizens

A part of the **lora:LINK WASTE** solution is a publicly available and free mobile app, which allows anyone to see a map of monitored bins in their neighbourhood and their fullness in real-time. The application works in two modes.

In the **Operator** or **Driver** mode, detailed monitoring including live data from all monitored bins, notification, dashboards, and reports is available. The application effectively plans waste collection routes and navigates the driver according to the optimal route. During waste collection, the driver is able to inform the operator/center of any changes to the bin stands, such as damages, or any other important issues.

In the **Resident** view, the citizens are able to find the nearest bin fitting the type and size of the waste they are planning to dispose. The citizen is also able to inform the communal services operator on the status of each bin stand or regarding possible damage, and actively contribute to keep their neighbourhood cleaner and free of litter.

