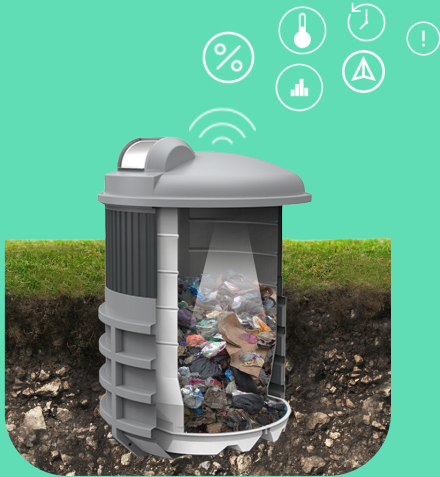


# Smart Waste Monitoring



Smart waste monitoring using LPWAN and IoT sensors is a way to effectively monitor waste containers and boxes with **real-time** tracking.

Our proprietary solution uses intelligent software that offers a complete overview of waste, from route planning to reducing waste collection costs.

We provide a flexible and reliable solution for all customers, from municipalities, business centers to industrial plants.

## Main Benefits

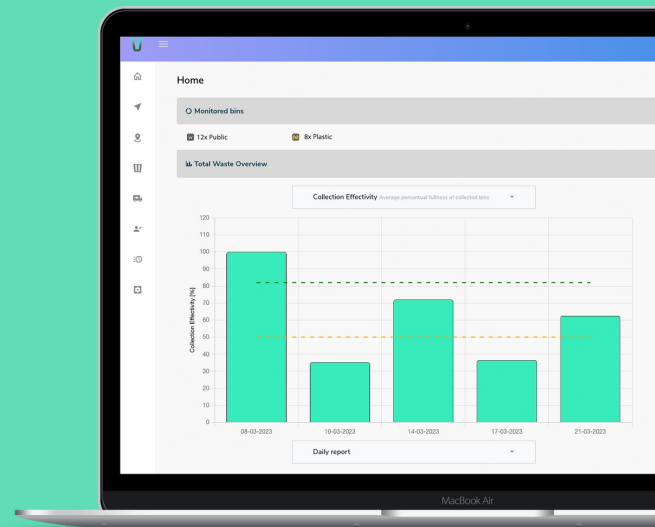
complex administration of the waste management system



optimization of waste collections and costs



tracking and analysis of waste containers, bins or boxes

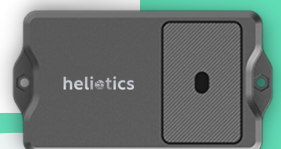
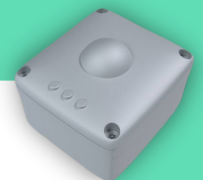


## Why choose Vastum?

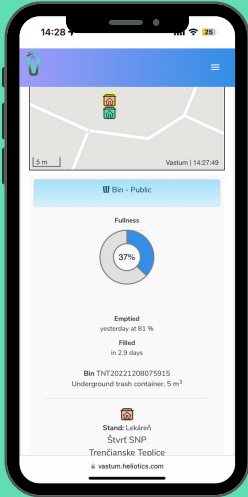
- decision-making based on real data
- a comprehensive overview and effective waste collection
- monitoring and optimization of waste collection routes
- reduces operational costs by up to 30%
- offers predictions for the creation of new stands or gatherings
- contributes to saving the environment
- wide use of waste monitoring in municipalities and factories or for the take-back system

## Sensors for every solution

- ultrasonic, ToF and radar sensors
- measurements up to a depth of 4 500 mm
- high measurement accuracy
- tilt detection
- compact size
- compatible with every container
- IP67 waterproof and shockproof
- battery life up to 10 years
- OTA a NFC configuration
- LoRaWAN and NB-IoT compatibility



# How it works?



Collection management



Containers and stands supervision



Routing optimization



Prediction algorithms



Reporting and analysis

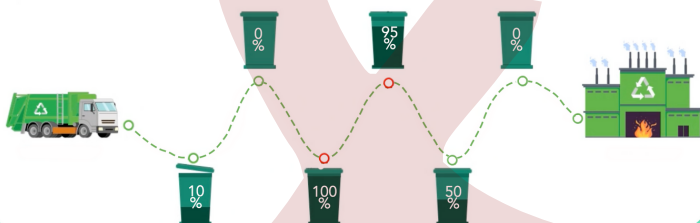


Alerts

## Advantages of Vastum:

- effective overview of all containers and their filling
- analytics for monitoring the number and efficiency of collections
- container fullness prediction
- clear data visualization and easy export for further use
- vehicle fleet management and monitoring of costs
- monitoring and route planning (Vastum algorithm)
- user management – driver | administrator | observer
- web and mobile app

Traditional waste collection



Smart waste collection

