

## **Smart Waste Management Systems: Global Markets**

Market Research Report | 2022-11-09 | 107 pages | BCC Research

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## Report description:

Description

## Report Scope:

The smart waste management system market is segmented into the follow categories -

- By type of waste: Liquid waste, solid waste, organic waste, recyclable waste, hazardous waste.
- By source of waste: Industrial, healthcare, domestic, hospitality, electronics, others.
- By type of treatment: Chemical treatment, biological treatment, landfill, others.
- By type of component: Hardware-sensors, bins, machinery; software waste notification software, Fleet monitoring software, waste separation software, DBMS.
- By application: waste to energy, waste to fuel, and landfill gas to energy.
- By region: North America is segmented into the U.S., Canada and Mexico; Europe is segmented into the U.K., France, Germany and Rest of Europe; the U.K. is further segmented into England, Wales, Scotland and Northern Ireland; Asia-Pacific (APAC) is segmented into China, Japan and India; and the Rest of the World (RoW).

## Report Includes:

- 67 data tables and 25 additional tables
- An up-to-date review and analysis of the global markets for smart waste management systems (IWMS)
- Analyses of the global market trends, with historic market revenue data for 2021, estimates for 2022 and 2023, and projections of compound annual growth rates (CAGRs) through 2027
- Highlights of the market potential for intelligent waste management systems, opportunities and gaps estimating demand, and impact of COVID-19 on the progress of this market
- In-depth information (facts and figures) concerning major market dynamics, opportunities and challenges, technology

advancements, value chain analysis, and competitive environment of the leading market players

- Estimation of the actual market size and revenue forecast for IWMS industry, and corresponding market share analysis based on type of waste, treatment type, waste source, component, and region
- A relevant patent analysis with significant allotments of patent data across each major category
- Company profiles of major players within the industry, including Big Belly Solar LLC, Ecube Labs Co. Ltd., Sensoneo and Veolia

#### **Executive Summary**

### Summary:

The continuing expansion of the global population has increased waste production, challenging cities, countries and municipalities to meet the demand for its effective disposal. A proper waste management system helps avoid spreading deadly diseases and safeguard the health of everyone. To achieve the goal of improved waste disposal, IoT-based waste management systems have been introduced in smart cities across the globe. In a planned system, multiple waste bins are deployed across cities and linked with an embedded structure to help with tracking waste levels in different waste bins, according to their placed unique IDs. This also assists with tracking efforts that result in timely waste collection efforts. Smart waste management is characterized by the use of technology to facilitate waste management efficiency. Thus, waste collection is conducted in a more timely manner, thus avoiding delays and waste build-up that could lead to unsanitary risks.

Timely waste management collection happens through the interconnectivity of the embedded system with local small data centers and efficient alarmed systems, which are integrated to the smartphones or the specialized devices of the waste collector and monitoring officer. A smart waste management system is a 24/7 monitoring system designed for monitoring dumpsters. The ultrasonic sensor measures the level of waste in the garbage bin and the IR sensor and moisture sensor separate wet and dry waste into two separate containers. This system provides an effective solution for the timely collection and management of waste.

According to our analysis, smart waste management helps lower the overall cost of collection and transportation by more than REDACTED% because of timely information, which includes the correct locations from where different types of waste collected. This helps them to denote the place of waste generation from public places, residential buildings, hospitals and other institutions. Different technologies, such as vacuum containers, radio frequency identification (RFID) disposal tags and sensor containers, are used for providing real-time fill positions and overall assessments of different types of waste. Efficient and proper management of different types of waste through the overall integrated system can help minimize many issues related to climatic changes, environmental pollution and public health. Recent endemic diseases such as the coronavirus have positively impacted the waste management market by raising awareness about the disposal of products deemed hazardous to human health as well as nonhazardous.

In Asia-Pacific, emerging countries such as in China and India are expected to generate more than REDACTED% of the region's waste volume. The growing volume of e-waste is a major concern at the global level. Planned and efficient waste management technologies such as cloud management structure, RFID and gasification of hazardous substances with proper care are the driving factors for Indian Waste Management Systems market across developed economies. However, due to the huge cost of implementation during setup, service and maintenance across developing nations such as China and India will challenge market growth during the forecast period.

#### **Table of Contents:**

Table of Contents
Chapter 1 Introduction
1.1 Study Goals and Objectives
1.2 Reasons for Doing This Study

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- 1.3 What's New in This Update?
- 1.4 Scope of Report
- 1.5 Methodology
- 1.6 Geographic Breakdown
- 1.7 Analyst's Credentials
- 1.8 BCC Custom Research
- 1.9 Related BCC Research Reports

Chapter 2 Summary and Highlights

Chapter 3 Market Overview

- 3.1 Traditional Waste Management
- 3.2 Smart Waste Management
- 3.2.1 Smart Bin Sensors
- 3.2.2 Platform
- 3.2.3 Intelligent Route
- 3.2.4 Container Tracking
- 3.3 Market Dynamics
- 3.3.1 Drivers
- 3.3.2 Restraints
- 3.3.3 Opportunities

Chapter 4 Market Breakdown by Type of Waste

- 4.1 Introduction
- 4.2 Liquid Waste
- 4.3 Solid Waste
- 4.3.1 Recycling Facts
- 4.4 Organic Waste
- 4.5 Recyclable Waste
- 4.6 Hazardous Waste

Chapter 5 Market Breakdown by Source of Waste

- 5.1 Introduction
- 5.2 Industrial
- 5.2.1 Classification of Industrial Waste
- 5.3 Healthcare
- 5.4 Domestic
- 5.5 Hospitality
- 5.6 Electronics
- 5.7 Others

Chapter 6 Market Breakdown by Type of Treatment

- 6.1 Introduction
- 6.2 Chemical Treatment
- 6.3 Biological Treatment
- 6.4 Landfill
- 6.5 Others
- 6.5.1 Thermal Treatment

Chapter 7 Market Breakdown by Business Segment

- 7.1 Introduction
- 7.2 Hardware
- 7.2.1 Sensors

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- 7.2.2 Bins
- 7.2.3 Machinery
- 7.3 Software
- 7.3.1 Waste Notification Software
- 7.3.2 Fleet Monitoring Software
- 7.3.3 Waste Separation Software
- 7.3.4 Database Management System (DBMS)

Chapter 8 Market Breakdown by Application

- 8.1 Introduction
- 8.2 Waste-to-Energy
- 8.2.1 Mass Burn Facility
- 8.2.2 Modular Systems
- 8.2.3 Refuse-Derived Fuel Systems
- 8.3 Waste-to-Fuel
- 8.4 Landfill Gas-to-Energy

Chapter 9 Market Breakdown by Region

- 9.1 Introduction
- 9.2 North America
- 9.3 Asia-Pacific
- 9.4 Europe
- 9.5 RoW

Chapter 10 Company Profiles

**BIG BELLY SOLAR LLC** 

BINE SP. Z O. O.

ECUBE LABS CO. LTD.

GREENQ LTD.

**NORDSENSE** 

**REEN AS** 

**SENSONEO** 

TERABEE

Veolia

Chapter 11 Appendix: Acronyms



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