

## **Electronic Waste Management: Global Markets and Technologies**

Market Research Report | 2023-05-03 | 193 pages | BCC Research

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### **Report description:**

Description

Report Scope:

E-waste or electronic waste management technologies and recycling market comprises one of the fastest-growing waste streams in emerging and developed regions. Rapid technology innovations and ever-shortening product life cycles are among the factors contributing to the rapid growth of electronic waste. Electronic waste is an inherently complex problem to manage because of its duality as both a valuable commodity and a source of hazardous waste. This dichotomy drives the constant challenge to utilize a potential economic resource most effectively while sufficiently mitigating environmental and social damage.

Various economic, environmental, and social factors influence electronic waste practices and are influenced by them. The information technology asset disposition (ITAD) industry feels the weight of these changes due to the tremendous volume and scale of electronic waste it processes. This report summarizes commercial end-user and value recovery industry practices for end-of-life management, primarily determined by regulations and industry standards. The report also characterizes those practices' environmental implications and identifies which have the least potential environmental impact.

Regional and country-level markets are segmented and analyzed by recovered materials and applications. The report also covers the impact of the COVID-19 pandemic and the Russia-Ukraine war. The market sizes and estimations are provided regarding revenue, with 2021 as the base year; market forecasts will be given for 2022 to 2027.

Report Includes:

- 49 data tables and 24 additional tables
- An up-to-date overview and industry analysis of the global and regional markets for electronic waste management treatment

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technologies and recycling markets

- Analyses of the global market trends, with historic market revenue data (sales figures) for 2021, estimates for 2022, forecasts for 2023, and projections of compound annual growth rates (CAGRs) through 2027
- Estimation of the actual market size and revenue forecast for global electronic waste management and recycling market in USD million terms, and corresponding market share analysis by recycling component, source type, treatment technology, and region
- Highlights of emerging technology trends, opportunities and gaps in the market estimating current and future demand for treatment technologies for electrical and electronic waste management across each region, and identification of major geographies involved market developments
- Review of the legislative and environmental regulatory issues and concerns currently focused on electronic waste management approaches as a basis for projecting demand in the next few years
- A comparative study of value chain analysis and Porter's Five Forces model considering both micro- and macro- environmental factors prevailing in the electronic waste management technologies and recycling markets
- Review of market and economic opportunities for current industry participants and new entrants
- A relevant patent analysis with data corresponding to number of U.S. patents related to treatment technologies for electrical and electronic waste management
- Updated information on recent industry acquisitions, partnerships, agreements, collaborations, and other strategic alliances in the global electronic waste management and recycling market
- Descriptive company profiles of the market leading players, including ALBA Group, Capital Environment Holdings Limited, Quantum Lifecycle, Sims Lifecycle Services and Waste Management, Inc.

## Executive Summary

### Summary:

The global electronic waste management market was valued at \$54.4 billion in 2021 and is projected to reach \$108 billion by 2027. This market is expected to grow at a CAGR of 12.6% from 2022 to 2027.

E-waste, also referred to as electronic waste, is the term used to describe discarded electrical appliances and gadgets, including computers, smartphones, televisions, and refrigerators. These gadgets contain dangerous substances like lead, mercury, cadmium, and beryllium that can harm the ecosystem and people's health if improperly disposed of. E-waste is a global issue becoming increasingly problematic as consumer electronics usage rises and product lifespans shorten. E-waste that is not correctly disposed of can cause the release of toxic chemicals into the ecosystem, polluting the air, water, and soil.

A rich supply of priceless materials, including precious metals like gold, silver, and platinum, can be found in e-waste. E-waste recycling can aid in the recovery of these materials, minimizing the need for new mining and the environmental effect of electronics production.

E-waste management initiatives combine consumer education, business regulations, and governmental policies. Numerous nations have set up e-waste collection and recycling programs to avoid improper disposal and encourage ethical recycling.

Technological advancement has increased the global demand for electronic equipment. Drastic innovations have shortened the life of these products, which has, in turn, exponentially increased the generation of waste from electronic equipment, and global production is expected to continue to accelerate shortly. More than 46 million tons per year of electronic waste are generated globally, with a significant share originating in Europe, the U.S., and the Asia-Pacific region. However, in the next decade, China, Eastern Europe, South America, and several African and Middle Eastern countries are expected to become significant electronic waste producers.

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Electronic waste contains many valuable and recoverable materials, such as aluminum, ferrous metals, copper, gold, and silver. Electronic waste treatment and recycling have become a significant priority for maximum energy and natural resource conservation for many countries. Electronic waste also contains toxic and hazardous materials, including mercury, lead, cadmium, chromium, antimony, and many other chemicals, and recycling can prevent them from posing an environmental hazard.

E-waste, also referred to as electronic waste, is a rising ecological concern on a worldwide scale. Electronic device production has increased dramatically due to the lightning-fast pace of technical development, creating enormous amounts of e-waste. It is crucial to manage electronic waste effectively because improper disposal of e-waste presents a severe risk to the environment and public health.

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CIMELIA RESOURCE RECOVERY PTE. LTD.  
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