

Material Recovery Automation Market Forecasts to 2034 – Global Analysis By Equipment (Sorting Systems, Robotic Recovery Systems, Conveyor Systems and Other Equipment), Technology (Optical Sorting, Artificial Intelligence, Robotics, Machine Vision and Other Technologies), Material Type, Automation Level, End User, and Geography

<https://marketpublishers.com/r/MB11AA357D62EN.html>

Date: August 2026

Pages: 0

Price: US\$ 4,150.00 (Single User License)

ID: MB11AA357D62EN

Abstracts

According to Statistics MRC, the Global Material Recovery Automation Market is accounted for \$6.8 billion in 2026 and is expected to reach \$23.5 billion by 2034 growing at a CAGR of 16.8% during the forecast period. Material recovery automation refers to the use of robotics, artificial intelligence, machine vision, automated sorting systems, and advanced sensing technologies to identify, separate, process, and recover valuable materials from waste streams and end-of-life products. These automated solutions improve the efficiency, accuracy, and scalability of recycling and resource recovery operations while reducing manual labor and material losses. Material recovery automation supports circular economy initiatives by increasing recycling rates, improving material quality, and maximizing resource utilization. Rising demand for sustainable waste management and resource conservation is driving the adoption of material recovery automation technologies worldwide.

Market Dynamics:

Driver:

Rising recycling automation demand

Material recovery automation uses intelligent equipment robotics sensors and artificial intelligence to identify separate and recover valuable recyclable materials from mixed waste streams with greater efficiency and accuracy. Recycling facilities are increasingly adopting automated technologies to improve processing capacity and reduce manual intervention. Growing waste generation is encouraging investments in advanced recovery systems. Automation enhances material purity while improving operational productivity. Continuous technological advancements are accelerating the modernization of recycling infrastructure. Automated recovery technologies are transforming the future of waste management.

Restraint:

Complex mixed-waste sorting processes

Mixed waste contains materials with varying sizes compositions and contamination levels making accurate separation technically challenging. Recovery facilities require sophisticated detection technologies to achieve high recycling efficiency. System optimization often increases implementation complexity and operating costs. Technology developers continue improving sorting algorithms and sensor capabilities. Continuous innovation is helping increase recovery accuracy. Efficient mixed-waste processing remains a key challenge for the industry.

Opportunity:

Expansion in electronic waste recycling

Growing volumes of discarded electronic products are increasing demand for automated recovery systems capable of extracting valuable metals and reusable materials efficiently. Advanced automation improves recovery rates while reducing processing time and operational costs. Recycling facilities are investing in specialized technologies for complex electronic waste streams. Technological advancements continue improving material identification accuracy. Increasing resource recovery initiatives are supporting long-term market expansion. Electronic waste recycling is creating new growth opportunities for automation providers.

Threat:

Changing waste management regulations

Frequent regulatory updates require recycling operators and equipment manufacturers to adapt processing technologies and operational practices to maintain compliance. New environmental standards may increase equipment modification costs and certification requirements. Companies continue investing in flexible automation systems that support regulatory compliance. Ongoing policy changes encourage continuous technology upgrades. Regulatory uncertainty may affect investment planning in some regions. Compliance remains an important factor shaping market development.

Covid-19 Impact:

The COVID-19 pandemic temporarily disrupted recycling operations due to workforce shortages and interruptions in waste collection and processing activities. As industrial activity recovered recycling facilities accelerated investments in automation to improve operational resilience reduce labor dependency and maintain processing efficiency. Demand for intelligent recovery systems increased as waste volumes continued to grow. Digital monitoring and automated operations became increasingly important across recycling facilities. Recovery investments strengthened the adoption of advanced automation technologies.

The sorting systems segment is expected to be the largest during the forecast period

The sorting systems segment is expected to account for the largest market share during the forecast period as their ability to accurately separate recyclable materials significantly improves recovery efficiency and material quality. Advanced sorting technologies reduce contamination while increasing recycling throughput. Recycling facilities continue investing in intelligent sorting equipment to optimize processing operations. Continuous improvements in sensor technologies are enhancing system performance. Growing demand for efficient recycling supports widespread adoption. Sorting systems remain the foundation of automated material recovery operations.

The smart automated segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the smart automated segment is predicted to witness the highest growth rate due to growing adoption of artificial intelligence in recycling facilities. Intelligent automation enables real-time material identification predictive system optimization and improved operational efficiency. Recycling operators are deploying smart technologies to increase recovery rates and reduce operating costs. Continuous advancements in robotics and machine vision are accelerating technology adoption.

Digital transformation is supporting next-generation waste processing systems. Smart automation is expected to become the fastest-growing segment in material recovery.

Region with largest share:

During the forecast period, the Europe region is expected to hold the largest market share owing to strong recycling policies. Governments across the region continue promoting circular economy initiatives and advanced waste recovery infrastructure. Recycling facilities are investing in automated technologies to improve material recovery efficiency. High environmental standards encourage widespread adoption of intelligent recycling systems. Continuous innovation supports regional market leadership. Europe remains the leading market for material recovery automation.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR driven by expanding waste recycling infrastructure. Governments and private operators are investing in modern recycling facilities equipped with advanced automation technologies. Rising industrialization is increasing demand for efficient waste processing systems. Technology adoption continues improving recycling capacity across the region. Ongoing infrastructure development supports sustained market growth. Asia Pacific is expected to emerge as the fastest-growing market for material recovery automation.

Key players in the market

Some of the key players in Material Recovery Automation Market include TOMRA Systems ASA, Pellenc ST, Machinex Industries Inc., Bulk Handling Systems, Inc., AMP Robotics Corporation, ZenRobotics Ltd., CP Manufacturing, Inc., General Kinematics Corporation, STEINERT GmbH, Sesotec GmbH, Eriez Manufacturing Co., Bollegraaf Recycling Solutions, REDWAVE, Kiverco Ltd. and Bezner Anlagen- und Maschinenbau GmbH.

Key Developments:

In May 2026, Machinex Industries Inc. executed an advanced technological product launch by introducing its new unified artificial intelligence platform called MIND™ at the IFAT Munich trade exhibition. This software deployment links real-time sorting analytics across distinct material recovery facilities, creating an automated command center that

allows facility operators to track localized purity metrics and optimize system-wide mechanical performance.

In October 2024, TOMRA Systems ASA completed a major geographic and technology acquisition by purchasing an 80% controlling stake in German digital waste management leader c-trace GmbH. This corporate transaction integrates advanced vehicle telematics and AI-driven municipal waste software directly into TOMRA's ecosystem, establishing a diversified digital lifecycle platform to scale circular resource tracking globally.

Equipment's Covered:

Sorting Systems

Robotic Recovery Systems

Conveyor Systems

Other Equipment's

Technologies Covered:

Optical Sorting

Artificial Intelligence

Robotics

Machine Vision

Other Technologies

Material Types Covered:

Plastics

Metals

Paper & Cardboard

Glass

Other Material Types

Automation Levels Covered:

Semi-Automated

Fully Automated

Smart Automated

Other Automation Levels

End Users Covered:

Material Recovery Facilities

Recycling Companies

Waste Management Companies

Industrial Recycling Facilities

Other End Users

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

2 RESEARCH FRAMEWORK

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
 - 2.4.1 Data Collection (Primary and Secondary)
 - 2.4.2 Data Modeling and Estimation Techniques
 - 2.4.3 Data Validation and Triangulation
 - 2.4.4 Analytical and Forecasting Approach

3 MARKET DYNAMICS AND TREND ANALYSIS

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

4 COMPETITIVE AND STRATEGIC ASSESSMENT

- 4.1 Porter's Five Forces Analysis
 - 4.1.1 Supplier Bargaining Power
 - 4.1.2 Buyer Bargaining Power
 - 4.1.3 Threat of Substitutes
 - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

5 GLOBAL MATERIAL RECOVERY AUTOMATION MARKET, BY EQUIPMENT

- 5.1 Sorting Systems
- 5.2 Robotic Recovery Systems
- 5.3 Conveyor Systems
- 5.4 Other Equipment

6 GLOBAL MATERIAL RECOVERY AUTOMATION MARKET, BY TECHNOLOGY

- 6.1 Optical Sorting
- 6.2 Artificial Intelligence
- 6.3 Robotics
- 6.4 Machine Vision
- 6.5 Other Technologies

7 GLOBAL MATERIAL RECOVERY AUTOMATION MARKET, BY MATERIAL TYPE

- 7.1 Plastics
- 7.2 Metals
- 7.3 Paper & Cardboard
- 7.4 Glass
- 7.5 Other Material Types

8 GLOBAL MATERIAL RECOVERY AUTOMATION MARKET, BY AUTOMATION LEVEL

- 8.1 Semi-Automated
- 8.2 Fully Automated
- 8.3 Smart Automated
- 8.4 Other Automation Levels

9 GLOBAL MATERIAL RECOVERY AUTOMATION MARKET, BY END USER

- 9.1 Material Recovery Facilities
- 9.2 Recycling Companies

9.3 Waste Management Companies

9.4 Industrial Recycling Facilities

9.5 Other End Users

10 GLOBAL MATERIAL RECOVERY AUTOMATION MARKET, BY GEOGRAPHY

10.1 North America

10.1.1 United States

10.1.2 Canada

10.1.3 Mexico

10.2 Europe

10.2.1 United Kingdom

10.2.2 Germany

10.2.3 France

10.2.4 Italy

10.2.5 Spain

10.2.6 Netherlands

10.2.7 Belgium

10.2.8 Sweden

10.2.9 Switzerland

10.2.10 Poland

10.2.11 Rest of Europe

10.3 Asia Pacific

10.3.1 China

10.3.2 Japan

10.3.3 India

10.3.4 South Korea

10.3.5 Australia

10.3.6 Indonesia

10.3.7 Thailand

10.3.8 Malaysia

10.3.9 Singapore

10.3.10 Vietnam

10.3.11 Rest of Asia Pacific

10.4 South America

10.4.1 Brazil

10.4.2 Argentina

10.4.3 Colombia

10.4.4 Chile

- 10.4.5 Peru
- 10.4.6 Rest of South America
- 10.5 Rest of the World (RoW)
 - 10.5.1 Middle East
 - 10.5.1.1 Saudi Arabia
 - 10.5.1.2 United Arab Emirates
 - 10.5.1.3 Qatar
 - 10.5.1.4 Israel
 - 10.5.1.5 Rest of Middle East
 - 10.5.2 Africa
 - 10.5.2.1 South Africa
 - 10.5.2.2 Egypt
 - 10.5.2.3 Morocco
 - 10.5.2.4 Rest of Africa

11 STRATEGIC MARKET INTELLIGENCE

- 11.1 Industry Value Network and Supply Chain Assessment
- 11.2 White-Space and Opportunity Mapping
- 11.3 Product Evolution and Market Life Cycle Analysis
- 11.4 Channel, Distributor, and Go-to-Market Assessment

12 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

- 12.1 Mergers and Acquisitions
- 12.2 Partnerships, Alliances, and Joint Ventures
- 12.3 New Product Launches and Certifications
- 12.4 Capacity Expansion and Investments
- 12.5 Other Strategic Initiatives

13 COMPANY PROFILES

- 13.1 TOMRA Systems ASA
- 13.2 Pellenc ST
- 13.3 Machinex Industries Inc.
- 13.4 Bulk Handling Systems, Inc.
- 13.5 AMP Robotics Corporation
- 13.6 ZenRobotics Ltd.
- 13.7 CP Manufacturing, Inc.

- 13.8 General Kinematics Corporation
- 13.9 STEINERT GmbH
- 13.10 Sesotec GmbH
- 13.11 Eriez Manufacturing Co.
- 13.12 Bollegraaf Recycling Solutions
- 13.13 REDWAVE
- 13.14 Kiverco Ltd.
- 13.15 Bezner Anlagen- und Maschinenbau GmbH

List Of Tables

LIST OF TABLES

Table 1 Global Material Recovery Automation Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global Material Recovery Automation Market, By Equipment (2023–2034) (\$MN)

Table 3 Global Material Recovery Automation Market, By Sorting Systems (2023–2034) (\$MN)

Table 4 Global Material Recovery Automation Market, By Robotic Recovery Systems (2023–2034) (\$MN)

Table 5 Global Material Recovery Automation Market, By Conveyor Systems (2023–2034) (\$MN)

Table 6 Global Material Recovery Automation Market, By Other Equipment (2023–2034) (\$MN)

Table 7 Global Material Recovery Automation Market, By Technology (2023–2034) (\$MN)

Table 8 Global Material Recovery Automation Market, By Optical Sorting (2023–2034) (\$MN)

Table 9 Global Material Recovery Automation Market, By Artificial Intelligence (2023–2034) (\$MN)

Table 10 Global Material Recovery Automation Market, By Robotics (2023–2034) (\$MN)

Table 11 Global Material Recovery Automation Market, By Machine Vision (2023–2034) (\$MN)

Table 12 Global Material Recovery Automation Market, By Other Technologies (2023–2034) (\$MN)

Table 13 Global Material Recovery Automation Market, By Material Type (2023–2034) (\$MN)

Table 14 Global Material Recovery Automation Market, By Plastics (2023–2034) (\$MN)

Table 15 Global Material Recovery Automation Market, By Metals (2023–2034) (\$MN)

Table 16 Global Material Recovery Automation Market, By Paper & Cardboard (2023–2034) (\$MN)

Table 17 Global Material Recovery Automation Market, By Glass (2023–2034) (\$MN)

Table 18 Global Material Recovery Automation Market, By Other Material Types (2023–2034) (\$MN)

Table 19 Global Material Recovery Automation Market, By Automation Level (2023–2034) (\$MN)

Table 20 Global Material Recovery Automation Market, By Semi-Automated

(2023–2034) (\$MN)

Table 21 Global Material Recovery Automation Market, By Fully Automated

(2023–2034) (\$MN)

Table 22 Global Material Recovery Automation Market, By Smart Automated

(2023–2034) (\$MN)

Table 23 Global Material Recovery Automation Market, By Other Automation Levels

(2023–2034) (\$MN)

Table 24 Global Material Recovery Automation Market, By End User (2023–2034)

(\$MN)

Table 25 Global Material Recovery Automation Market, By Material Recovery Facilities

(2023–2034) (\$MN)

Table 26 Global Material Recovery Automation Market, By Recycling Companies

(2023–2034) (\$MN)

Table 27 Global Material Recovery Automation Market, By Waste Management

Companies (2023–2034) (\$MN)

Table 28 Global Material Recovery Automation Market, By Industrial Recycling Facilities

(2023–2034) (\$MN)

Table 29 Global Material Recovery Automation Market, By Other End Users

(2023–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) are also represented in the same manner as above.

I would like to order

Product name: Material Recovery Automation Market Forecasts to 2034 – Global Analysis By Equipment (Sorting Systems, Robotic Recovery Systems, Conveyor Systems and Other Equipment), Technology (Optical Sorting, Artificial Intelligence, Robotics, Machine Vision and Other Technologies), Material Type, Automation Level, End User, and Geography

Product link: <https://marketpublishers.com/r/MB11AA357D62EN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/MB11AA357D62EN.html>