

Urban Mining Market Forecasts to 2032 – Global Analysis By Material Source (E-waste, Metal Scrap, Construction & Demolition (C&D) Waste, End-of-Life Vehicles (ELVs), Plastic Waste, and Batteries), Technology, Application, End User and By Geography

<https://marketpublishers.com/r/U5EE5593086AEN.html>

Date: November 2025

Pages: 200

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

ID: U5EE5593086AEN

Abstracts

According to Statistics MRC, the Global Urban Mining Market is accounted for \$25.30 billion in 2025 and is expected to reach \$71.96 billion by 2032 growing at a CAGR of 16.1% during the forecast period. Urban mining involves reclaiming useful materials, including metals and recyclable components, from the various waste streams found in cities. It emphasizes retrieving resources from electronic waste, demolished building materials, used appliances, and other items no longer in use. By viewing urban discards as a source of raw materials, urban mining decreases reliance on conventional mining, cuts environmental harm, and strengthens circular economy initiatives. This practice boosts resource efficiency, reduces landfill burden, and encourages sustainable handling of materials within urban areas.

Market Dynamics:

Driver:

Growing E-Waste & C&D waste volume

Rising consumption of consumer electronics, coupled with shorter product lifecycles, is generating unprecedented volumes of discarded devices. Similarly, infrastructure expansion and urban redevelopment projects are creating large streams of construction residues. Urban mining technologies are being adopted to recover valuable metals, plastics, and minerals from these waste flows. Innovations in automated sorting and

advanced recovery systems are enhancing efficiency across diverse waste categories. This surge in waste generation is positioning urban mining as a critical enabler of resource sustainability and circular economy practices.

Restraint:

Lack of infrastructure and technological gaps

Limited availability of advanced recycling facilities restricts the scale of material recovery. Technological gaps, particularly in precision separation and high-purity extraction, hinder efficiency and profitability. Developing economies often struggle with fragmented waste collection systems, reducing feedstock consistency. High capital requirements for establishing modern recycling plants further slow adoption. These structural limitations make it difficult for the industry to achieve widespread penetration and maximize recovery yields.

Opportunity:

Land reclamation and remediation

Abandoned landfills and contaminated sites can be mined for valuable resources while simultaneously restoring ecological balance. Recovery of metals and construction aggregates from legacy waste reduces reliance on virgin extraction. Emerging technologies such as bioremediation and geo-sensing are enabling safer and more targeted reclamation projects. Governments are increasingly supporting initiatives that combine waste recovery with soil rehabilitation. This dual benefit of resource recovery and environmental restoration is creating new avenues for sustainable growth in the sector.

Threat:

Fluctuations in recycled material prices

Market fluctuations are influenced by global commodity cycles, trade policies, and demand-supply imbalances. Sudden drops in copper, aluminum, or rare earth prices can undermine investment confidence. Recyclers often face difficulty in maintaining stable margins when raw material values swing unpredictably. Dependence on export markets further exposes operators to international price shocks. This instability creates financial risk and can slow the pace of technology adoption in the industry.

Covid-19 Impact:

The pandemic disrupted waste collection and recycling operations, creating short-term challenges for urban mining. Lockdowns led to reduced industrial activity, lowering the supply of recyclable materials. However, the surge in remote work and digital consumption accelerated e-waste generation. Delays in logistics and workforce shortages slowed project execution, but also highlighted the need for resilient recycling systems. Overall, Covid-19 acted as both a stress test and a catalyst, reshaping priorities toward sustainable resource recovery.

The physical separation segment is expected to be the largest during the forecast period

The physical separation segment is expected to account for the largest market share during the forecast period, due to its role in efficiently sorting and segregating diverse waste streams makes it indispensable. Techniques such as magnetic separation, density-based sorting, and optical scanning are widely deployed. These methods ensure high throughput and cost-effective recovery of metals and aggregates. Continuous innovation in sensor-based sorting is expanding applicability across complex waste categories.

The battery manufacturers segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the battery manufacturers segment is predicted to witness the highest growth rate. Rising demand for electric vehicles and energy storage systems is driving the need for sustainable raw materials. Urban mining provides a reliable source of lithium, cobalt, and nickel from discarded batteries. Advanced hydrometallurgical and pyrometallurgical processes are being developed to maximize recovery efficiency. Partnerships between recyclers and battery producers are accelerating closed-loop supply chains.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, due to rapid industrialization and urbanization in countries like China, India, and Japan are generating massive waste volumes. Strong government initiatives supporting recycling and circular economy practices are boosting adoption. Regional players are

investing in advanced technologies such as AI-driven sorting and robotics. Cultural emphasis on resource efficiency and sustainability further strengthens market penetration.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, owing to rising awareness of sustainability and stricter environmental regulations are driving demand for advanced recycling solutions. The region is witnessing strong investment in e-waste recovery and battery recycling infrastructure. Emerging trends include integration of blockchain for material traceability and AI for predictive waste management. Collaborations between technology firms and recyclers are accelerating innovation in high-purity extraction.

Key players in the market

Some of the key players in Urban Mining Market include Umicore, Ganfeng L, Li-Cycle, Ecobat, Redwood, Dowa Holo, Stena Rect, Kuusakoski, Veolia, Electronic, Aurubis, Sims Limit, Boliden, Fortum Ba, Novelis.

Key Developments:

In November 2025, Umicore has entered into a strategic partnership agreement with Korea's HS Hyosung Advanced Materials to advance and fund the industrialization, commercialization and further development of its silicon-carbon composite anode materials for electric vehicle (EV) lithium-ion batteries.

In November 2025, Trinidad Coastal Land Trust Launches Free Self-Check-Out for Beach Ready Wheelchair. Trinidad Coastal Land Trust just got one step closer to their goal of making Trinidad beaches more accessible for all.

Material Sources Covered:

E-waste

Metal Scrap

Construction & Demolition (C&D) Waste

End-of-Life Vehicles (ELVs)

Plastic Waste

Batteries

Technologies Covered:

Physical Separation

Chemical Recycling

Mechanical Processing

Shredding & Granulation

Hydrometallurgical Processes

Sensor-Based Sorting

Pyrometallurgical Processes

Automated Sorting & Robotics

Bio-leaching

Applications Covered:

Precious Metal Recovery

Plastic Recycling

Construction Material Recovery

Resource Circularity Solutions

Electronic Component Recovery

Metal Recycling

Battery Material Recovery

Other Applications

End Users Covered:

Metal & Mining Companies

Automotive Industry

Electronics Manufacturers

Government & Municipal Bodies

Battery Manufacturers

Recycling Facilities

Construction Companies

Waste Management Companies

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & 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 2024, 2025, 2026, 2028, and 2032
- 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

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