

# **South & Central America Smart Mining Market Forecast to 2030 - Regional Analysis - by Component (Automated Equipment, Hardware Component, Software Solution, and Services) and Mining Type (Underground Mining and Surface Mining)**

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## **Abstracts**

The South & Central America smart mining market was valued at US\$ 515.43 million in 2022 and is expected to reach US\$ 970.23 million by 2030; it is estimated to record a CAGR of 8.2% from 2022 to 2030.

### **Adoption of Automated Mining Equipment Bolsters South & Central America Smart Mining Market**

Smart mines with already installed technologies can automate their operations faster than those lagging in technological adoption. By implementing advanced technologies, mining operators can expand their current wireless network of embedded sensors. For instance, installing automation software enables the operator to monitor static and moving assets remotely and program automated interaction between both. Automated trucks carry out mining operations with the help of a physical sensor network and the remotely configured and managed software system, which previously required a truck driver fleet for service. Digitizing a mine by installing a wireless sensor network to perform remote readings can facilitate further digitization, such as automating key mining processes. Growing use of Operational Intelligence (OI) technologies, wireless monitoring and predictive maintenance support mining operators to track operational properties, to overcome the risks associated with mining and other crucial tasks. In real-time, the digital data collection process replaces the manual data collection at the operational site. The pressure of pore water plays a significant role in the dam site. The fluctuation in pore water pressure may lead to a sudden break in the dam. Instead of

manual pressure measurement, operators can continuously track pore water pressure levels with real-time digital readings, giving them better capabilities to protect their critical assets. The nation also focuses on setting up broadband networks to collect, monitor, and process data for process optimization. The system allows resource-efficient usage and promotes the effective use of water and electricity to ensure sustainability in the environment and economy.

Numerous mining and technology companies are developing automated mining equipment to improve worker safety and working conditions, increase productivity, improve fuel efficiency and vehicle utilization, reduce driver fatigue and attrition, and reduce unscheduled maintenance.

In May 2023, Komatsu Ltd. launched a series of medium-sized hydraulic excavators equipped with a hydrogen fuel cell to achieve carbon neutrality in the mining and construction workplaces. This excavator delivers powerful digging performance and high operability to mining operations. In March 2023, Roll Hill announced the expansion of its autonomous haulage system (AHS) by partnering with Epiroc and ASI. The companies are working on converting Roy Hill's 96 conventional haul trucks into the world's first autonomous haul truck solution. The autonomous haul truck provides driverless operation and helps Roll Hill to create the world's largest autonomous mine. In November 2020, ABB launched the ABB Ability Safety Plus for hoists, a suite of mine hoist safety. The products consist of Safety Plus Hoist Protector, Safety Plus Hoist Monitor, and Safety Plus Brake System with Safety Brake Hydraulics. ABB Ability Safety Plus is the first independently certified Safety Integrity Level 3 mine hoist system in the mining industry.

## South & Central America Smart Mining Market Overview

South America is a favorable market for North American-listed mineral explorers, developers, and miners due to its immense mineral potential and pro-mining business environment. Several corporations in the region are consolidating their gold projects and mines. For instance, Aurania Resources of Toronto is exploring gold in its Lost Cities project in Southern Ecuador's Cordillera del Cutucu region, which is contiguous with the Cordillera del Condor. Porphyry copper deposits, gold-copper skarn deposits, and epithermal gold deposits are all found in the Northern Andean Jurassic metallogenic region, which contains the Cutucu.

In addition, growing corporate investment and favorable government regulations are expected to lead to market expansion in SAM. Furthermore, attractive mining prospects presented to key companies due to low commodity prices and cheap mining taxes are expected to drive the market in South America throughout the forecast period.

Favorable government policies are creating a better mining environment; for instance,

the government of Argentina is seeking to increase the country's mining yield to improve foreign exchange earnings with the overview of a set of new incentives for the sector. SAM is rich in natural resources and has relatively low labor costs, which makes it an attractive investment destination for smart mining.

South & Central America Smart Mining Market Revenue and Forecast to 2030 (US\$ Million)

South & Central America Smart Mining Market Segmentation

The South & Central America smart mining market is segmented based on component, mining type, and country.

Based on component, the South & Central America smart mining market is segmented into automated equipment, hardware component, software solution, and services. The automated equipment segment held the largest South & Central America smart mining market share in 2022. The automated segment is further subsegmented into load haul dump, robotic truck, driller & breaker, excavator, and other automated equipment. The hardware component is further subsegmented into RFID tags, sensors, intelligent system, and others. The software solutions are further subsegmented into logistics software and solutions, data & operation management software and solutions, safety & security systems, connectivity solutions, analytics solutions, remote management solutions, and asset management solutions.

In terms of mining type, the South & Central America smart mining market is bifurcated into underground mining and surface mining. The surface mining segment held a larger South & Central America smart mining market share in 2022.

Based on country, the South & Central America smart mining market is categorized into Brazil, Argentina, and the Rest of South & Central America. Brazil dominated the South & Central America smart mining market in 2022.

ABB Ltd, Alastri, Caterpillar Inc, Hexagon AB, Hitachi Ltd, MineSense, Rockwell Automation Inc, SAP SE, and Trimble Inc are among the leading companies operating in the South & Central America smart mining market.

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