Smart Mining - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029

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Report description:

The Smart Mining Market size is estimated at USD 34.16 billion in 2024, and is expected to reach USD 34.53 billion by 2029, growing at a CAGR of 0.21% during the forecast period (2024-2029).

Mining involves many processes, including resource allocation management of equipment, such as mining trucks, excavators, drills, conveyor belts, transportation and logistics, and more. To ensure that everything runs efficiently and finishes faster, these complex processes require a system to simplify and automate them.

Key Highlights
-Mining involves many processes, including resource allocation and equipment management, such as mining trucks, excavators, drills, conveyor belts, transportation, and logistics. To make sure that everything runs efficiently and finishes faster, these complex processes require a system to simplify and even automate them.
-Wireless mining sensor networks are the latest step in the evolution of mine monitoring. To continually monitor the geological and geo-mechanical factors inside underground mines and assess potential safety and productivity risks posed by rapid or out-of-safe-range changes, many modern underground mines install a variety of geotechnical and other monitoring instruments.
-Digitalization may have come a little later to mining than other sectors, but it is quickly catching up. Mining companies have recently adopted a growing range of digital solutions. Many have mechanized their operations, moved from the physical to the digital realm by adding equipment sensors, and adopted unified networks to transmit data. Despite this progress, these steps are only the beginning.
-Mining operational costs have risen dramatically, and salary expenditures increased in emerging countries in recent years globally. For instance, according to the Ministry of Economy Argentina, salary expenditure in the mining and quarrying sector in Argentina increased to over ARS 355.38 Billion (USD 2.21 Billion) in Q2 2021 and by ARS 118.86 Billion (USD 0.74 Billion)

compared to Q2 2020.
-The ongoing COVID-19 outbreak and restrictions on international trade affected business operations in the smart mining market. However, due to strict regulations in the transportation of raw materials, the reopening of country borders is expected to assist in resolving transport and logistic issues.

Smart Mining Market Trends

Data Management and Analytics Software is Expected to Show Highest Growth

- Data is a valuable asset. Every day, automated mining equipment produces enormous amounts of useful data. Several vendors combine data with intelligent analytics, AI, machine learning, and automation to improve the security and productivity of operations.
- Mining companies can unlock immediate value and increase revenues by gathering and utilizing big data from data sources, analyzing the same with contemporary data analytics, and putting the results into practice. With reliable data, the mining industry can increase output, decrease operational inefficiencies, and respond to risks more quickly.
- The World Economic Forum estimates the mining industry's value due to digital transformation initiatives may exceed USD 320.0 billion in the following ten years. The next-generation digital transformation software for mining operations, Inter Systems IRIS, integrates seamlessly with current hardware and software programs. It provides customizable Key Performance Indicators (KPIs) delivered in real-time, such as Overall Equipment Effectiveness (OEE), and instant notifications when data levels and KPIs get close to predetermined thresholds.
- Big data is a promising technology that has the potential to change the mining industry. It is fueled by rapid advancements in information and communication technology. Big data management (BDM) in the mining sector continues to have fundamental issues, despite numerous attempts to implement it.
- Big data analytics and big data management can create intelligent infrastructure that can develop over time in the mining industry. Thus, analytics is expected to significantly enhance asset utilization, raise productivity, and address material flow delays.

North America to Hold Major Market Share

- The North American region is a significant contributor to the smart mining market, with the United States and Canada taking up major market shares. The Environmental Protection Agency of the United States developed a graphic to provide users of Toxic Release Inventory data with a better understanding of mining operations and related TRI-reportable chemical releases. The metal mining sector handles large volumes of material each year. This sector reports the most significant total quantity of releases of TRI-covered chemicals of any industry sector covered by the Toxic Release Inventory Program. This sector influences the TRI data viewed by the public, driving several significant national and local trends.
- Mining companies need software solutions to manage the exploration and production of minerals, optimize human resources and equipment use, and comply with environmental, health, and safety regulations.
- In June 2022, the Biden-Harris administration invested over USD 74 million in Federal-State partnerships to map critical minerals. This investment will be distributed in 30 states to support mapping, geoscience data collection, scientific interpretation, and data preservation of areas with potential for critical minerals under the US Geological Survey (USGS) Earth Mapping Resources Initiative, or Earth MRI.
- These investments improve the understanding of domestic critical mineral resources, a crucial step in securing a sustainable and reliable supply of the essential minerals that power numerous industries, from electronics to household appliances and clean

energy technologies like wind turbines and batteries.
- With the internet advancement, the region's most notable players focus on providing real-time analysis. Cisco Connected Mining enables real-time insight into each step of the mining and production process and accurate monitoring of output, equipment, worker location, and security.

Smart Mining Industry Overview

The smart mining market is very competitive in nature. The market is highly concentrated due to various small and large players. The major players in the market are Cisco Systems Inc., Wenco International Mining Systems Ltd, SAP SE, Rockwell Automation Inc., Komatsu Mining Corporation (Joy Global), Symboticware Inc., ABB Ltd, and many more. The companies are increasing their market share by forming multiple partnerships, investing in projects, and launching new products in the market.

- March 2022 - Komatsu Mining Corporation officially opened its new Wacol, Brisbane distribution center, which includes an Innovation Hub. The Innovation Hub features a variety of interactive exhibits exhibiting the most innovative advancements in mining, quarrying, and construction equipment and solutions. The featured exhibits include mining automation, Komatsu SmartConstruction, digital services, sustainability, and supply chain.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

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