

Global Green Mining Market: Analysis By Mining Type (Surface and Underground), By Technology (Power Reduction, Fuel and Maintenance Reduction, Toxicity Reduction, Emission Reduction and Water Reduction), By Region Size and Trends with Impact of COVID-19 and Forecast up to 2029

December 2024



Global Green Mining Market: Coverage

Executive Summary and Scope

Introduction/Market Overview

Global Market Analysis

Regional Market Analysis

Impact of COVID

Dynamics

Competitive Landscape

Company Profiling

Global Green Mining Market: Coverage

Scope of the Report

Attributes	Details
Title	Global Green Mining Market: Analysis By Mining Type (Surface and Underground), By Technology (Power Reduction, Fuel and Maintenance Reduction, Toxicity Reduction, Emission Reduction and Water Reduction), By Region Size and Trends with Impact of COVID-19 and Forecast up to 2029
Coverage	Global and Regional
Regional Coverage	Asia Pacific (China, India, Japan, South Korea and Rest of Asia Pacific), North America (The US, Canada and Mexico), Europe (Germany, UK, France, Italy and Rest of Europe) and Rest of the World
Market Influencing Variables	Growth Drivers, Challenges, Market Trends
Forecast Period of Market	2024-2029
Competition in the Market	Fragmented
Key Players	BHP Group Limited, Rio Tinto, Vale S.A., Anglo American, Glencore, Tata Steel (Tata Steel Mining Limited), Freeport-McMoRan Inc., Newmont Corporation, Dundee Precious Metals, Sumitomo Metal Mining Co., Ltd., ArcelorMittal etc.

Global Green Mining Market: Coverage

Executive Summary

Green mining refers to the practices and technologies applied in the mining industry aimed at reducing its environmental impact while improving operational efficiency. This concept integrates sustainable practices throughout the mining process, from exploration to mineral extraction, to processing, and ultimately, waste management. The global green mining market value in 2023 stood at US\$12.11 billion, and is expected to grow at a CAGR of 9.88% over the projected period of 2024-2029.

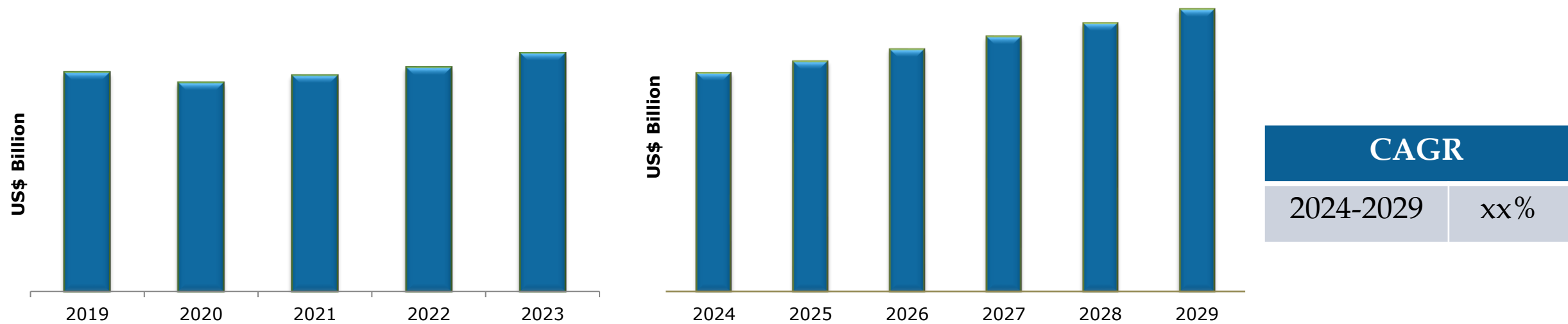
The green mining market can be segmented on the basis of mining type (surface and underground) and technology (power reduction, fuel and maintenance reduction, toxicity reduction, emission reduction, water reduction). On the basis of mining type, surface segment dominated the market in 2023 due to its lower operational costs, higher efficiency, and greater ease in implementing eco-friendly technologies such as renewable energy and automation compared to underground mining. Based on technology, emission reduction segment is expected to grow fastest due to increasing pressure on mining companies to meet stringent environmental regulations and global decarbonization goals. Technologies such as carbon capture and the use of renewable energy sources are becoming central to reducing mining-related greenhouse gas emissions. On the basis of region, Asia Pacific dominated the global green mining market in 2023.

The COVID-19 pandemic initially disrupted the global green mining market, causing delays in projects, halting supply chains, and impacting investments due to economic uncertainty. Mining operations faced challenges in maintaining workforce safety, resulting in Mining ion slowdowns. However, the post-COVID period has seen a rebound, with a heightened focus on sustainability and eco-friendly practices, as the pandemic underscored the importance of building resilient, environmentally responsible industries.

The global green mining market has increased in 2023 and projections are made that the market would rise in the next five years i.e. 2024-2029 tremendously. The growth is driven by increased demand for critical minerals, rising green finance, increasing environmental regulations, growing focus on sustainability and ESG goals, rising public and corporate awareness, economic benefits of sustainable practices etc. Further, the market is expected to grow, owing to increased use of automation and AI, adoption of renewable energy in mining operations, expansion of circular economy practices, focus on carbon neutrality, digital twin technology in mining, advancements in bio-mining etc., yet the market faces some challenges, such as high initial investment costs and measuring and reporting sustainability impact etc.

Green Mining Market: Global Analysis

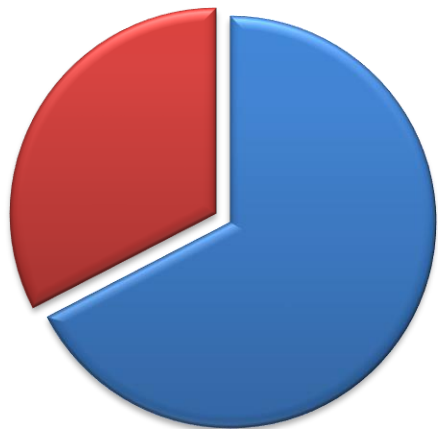
Global Green Mining Market by Value



Global green mining market valued at US\$... billion in 2023, increased as compared to US\$... billion in 2022. Global green mining market is anticipated to reach up to US\$... billion by 2029, at a CAGR of%, from US\$... billion in 2024.

Green Mining Market: Global Analysis

Global Green Mining Market by Mining Type; 2023



Mining Type	Share
	(2023)
Surface	xx%
Underground	xx%

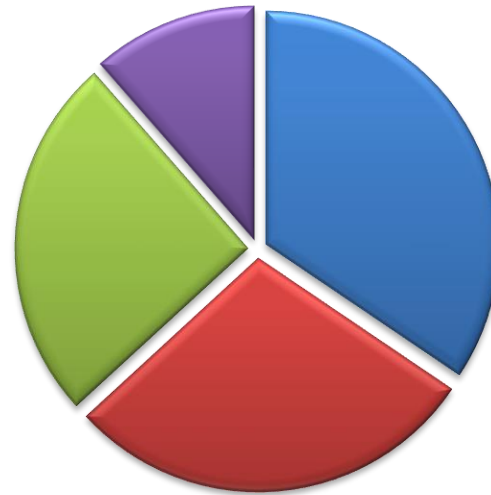
Global Green Mining Market by Technology; 2023



Technology	Share
	(2023)
Power Reduction	xx%
Fuel and Maintenance Reduction	xx%
Toxicity Reduction	xx%
Emission Reductions	xx%
Water Reduction	xx%

Green Mining Market: Global Analysis

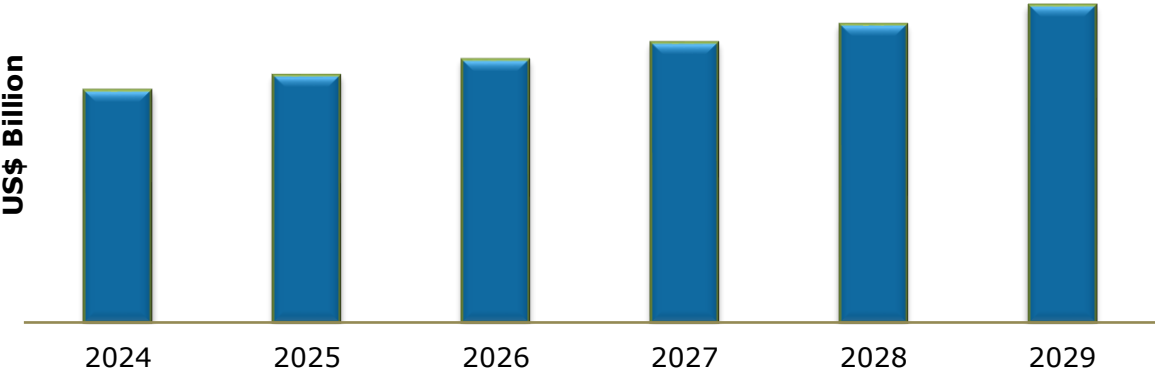
Global Green Mining Market by Region; 2023



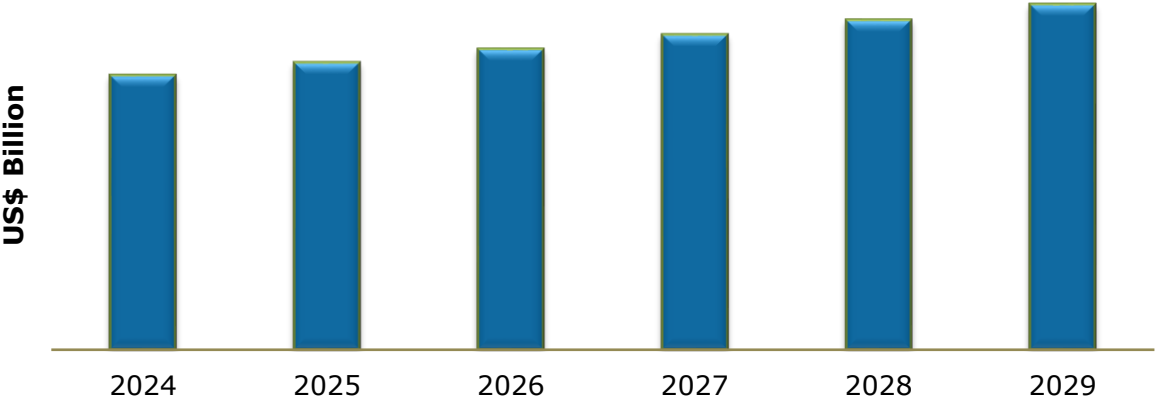
Region	Share
Asia Pacific	xx%
Europe	xx%
North America	xx%
Rest of the World	xx%

Global Green Mining Market: Mining Type Analysis

Global Surface Green Mining Market by Value



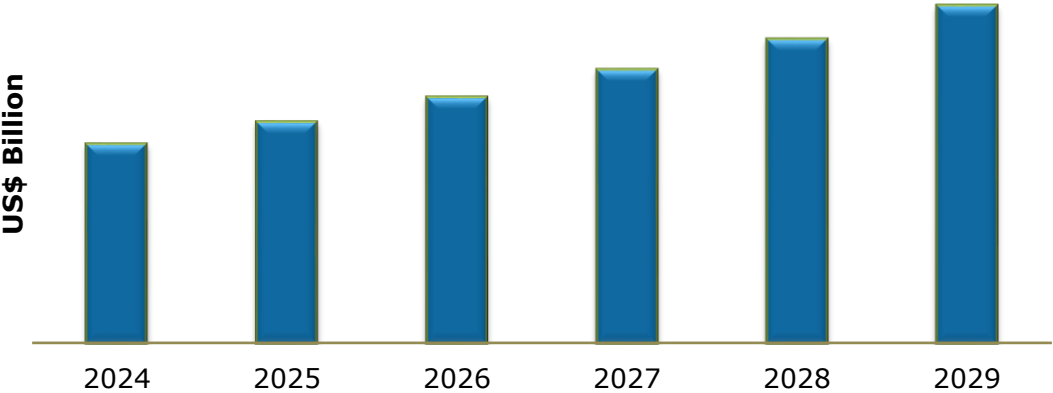
Global Underground Green Mining Market by Value



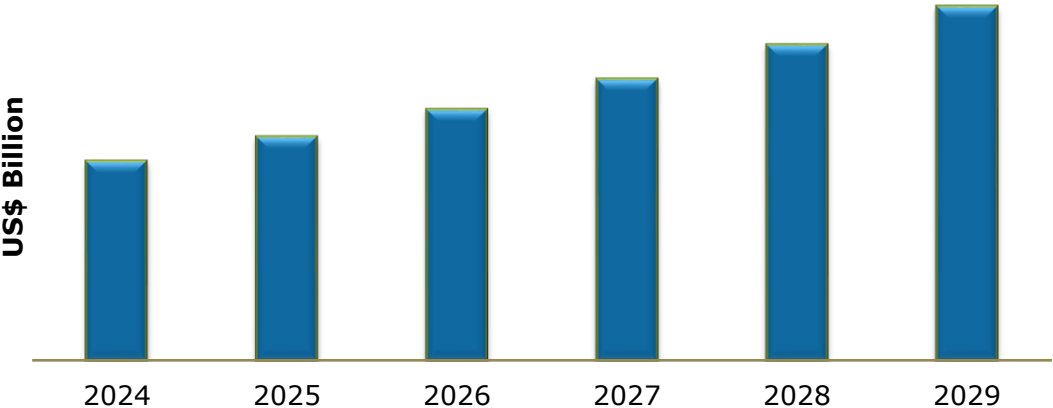
Mining Type	CAGR
	(2024-2029)
Surface	xx%
Underground	xx%

Global Green Mining Market: Technology Analysis

Global Power Reduction Green Mining Market by Value



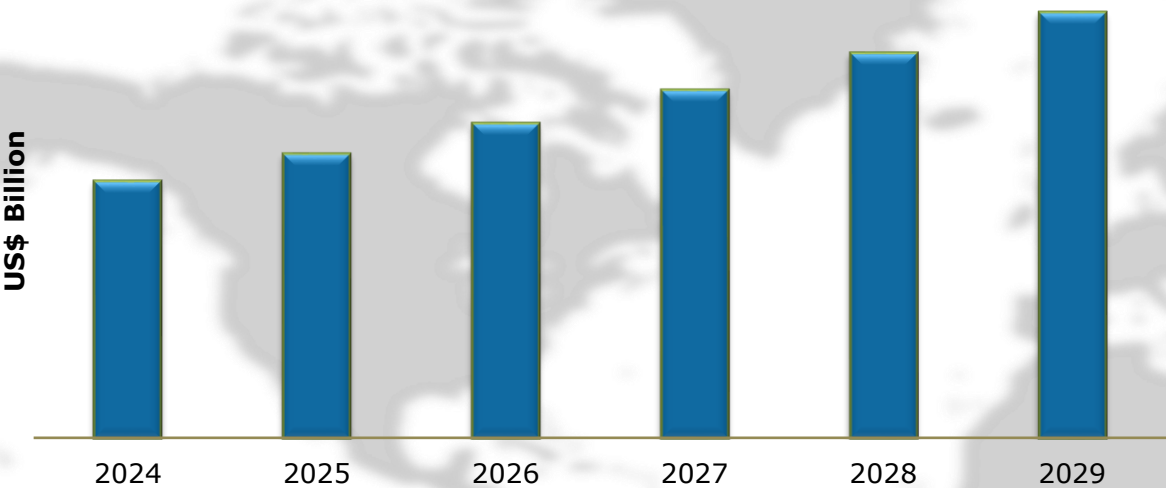
Global Emission Reduction Green Mining Market by Value



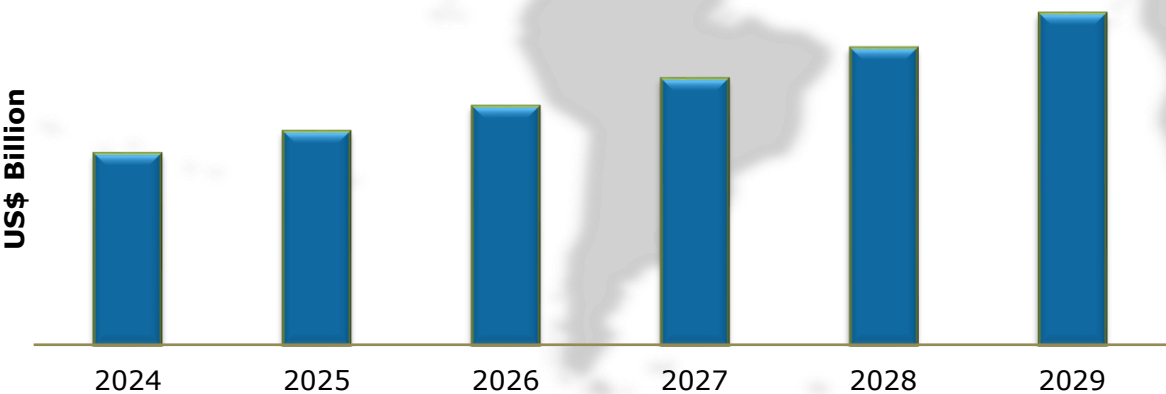
Technology	CAGR
	(2024-2029)
Power Reduction	xx%
Fuel and Maintenance Reduction	xx%
Toxicity Reduction	xx%
Emission Reductions	xx%
Water Reduction	xx%

Global Green Mining Market: Regional Analysis

Asia Pacific Green Mining Market by Value



North America Green Mining Market by Value



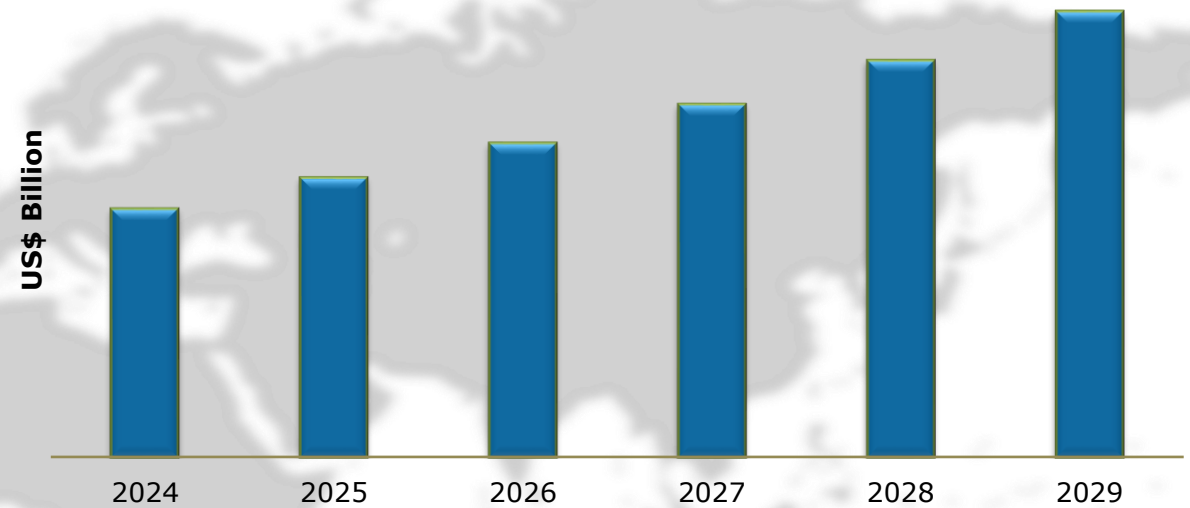
Region	CAGR
	(2024-29)
Asia Pacific	xx%
North America	xx%
Europe	xx%
Rest of the World	xx%

Asia Pacific Green Mining Market: Analysis

Asia Pacific Green Mining Market
by Region; 2023



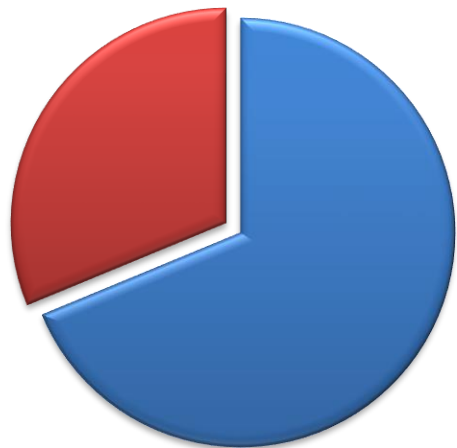
China Green Mining Market by Value



Region	Share	CAGR
		(2024-29)
China	xx%	xx%
India	xx%	xx%
Japan	xx%	xx%
South Korea	xx%	xx%
Rest of Asia Pacific	xx%	xx%

Asia Pacific Green Mining Market: Analysis

Asia Pacific Green Mining Market by Mining Type; 2023



Mining Type	Share	CAGR
	(2023)	(2024-2029)
Surface	xx%	xx%
Underground	xx%	xx%

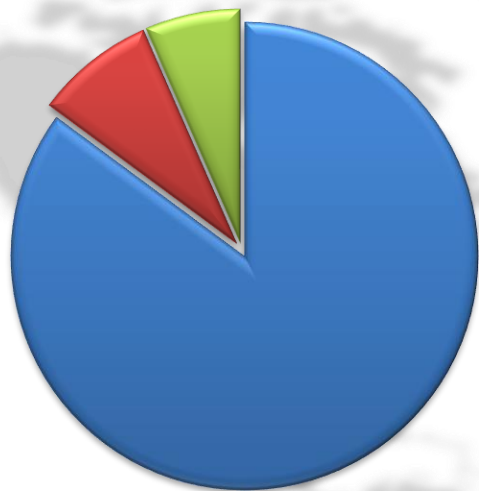
Asia Pacific Green Mining Market by Technology; 2023



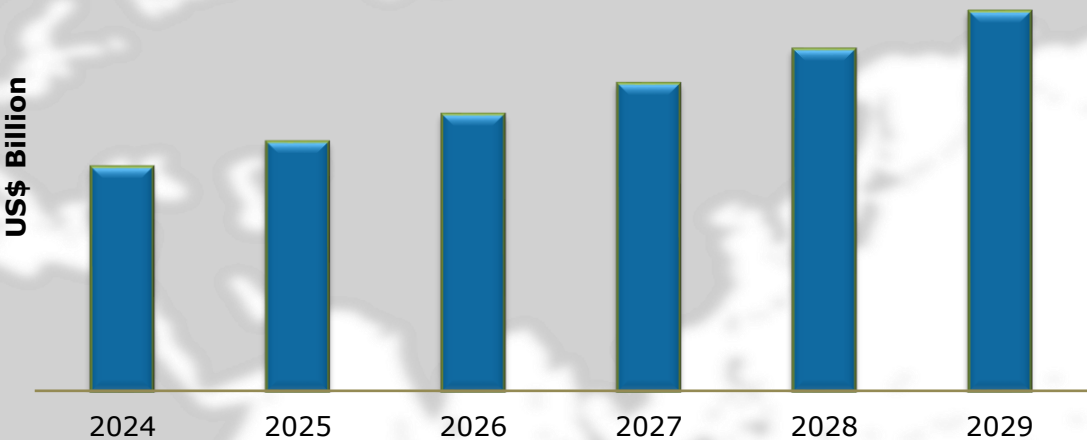
Technology	Share	CAGR
	(2023)	(2024-29)
Power Reduction	xx%	xx%
Fuel and Maintenance Reduction	xx%	xx%
Toxicity Reduction	xx%	xx%
Emission Reductions	xx%	xx%
Water Reduction	xx%	xx%

North America Green Mining Market: Analysis

North America Green Mining Market by Region; 2023



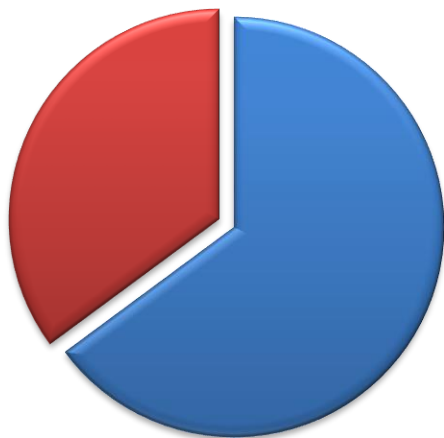
The US Green Mining Market by Value



Region	Share	CAGR
		(2024-29)
The US	xx%	xx%
Canada	xx%	xx%
Mexico	xx%	xx%

North America Green Mining Market: Analysis

North America Green Mining Market by Mining Type; 2023



Mining Type	Share	CAGR
	(2023)	(2024-2029)
Surface	xx%	xx%
Underground	xx%	xx%

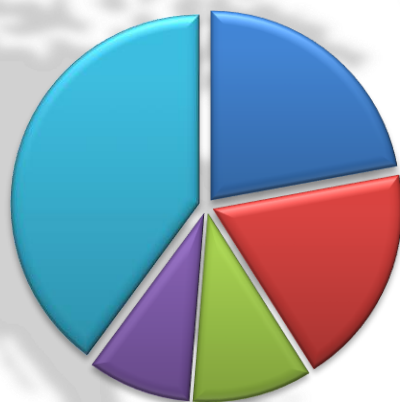
North America Green Mining Market by Technology; 2023



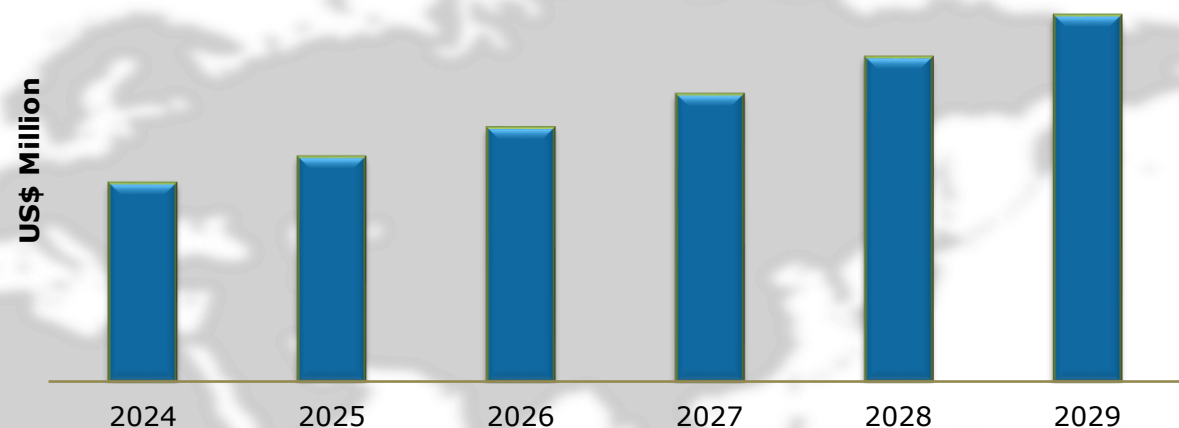
Technology	Share	CAGR
	(2023)	(2024-29)
Power Reduction	xx%	xx%
Fuel and Maintenance Reduction	xx%	xx%
Toxicity Reduction	xx%	xx%
Emission Reductions	xx%	xx%
Water Reduction	xx%	xx%

Europe Green Mining Market: Analysis

Europe Green Mining Market by Region; 2023



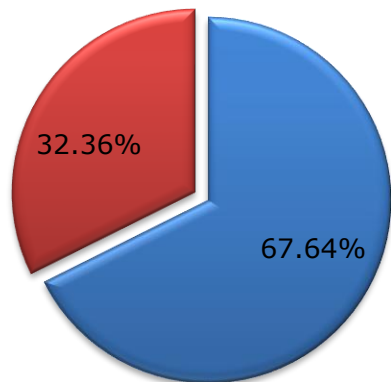
France Green Mining Market by Value



Region	Share	CAGR
		(2024-29)
Germany	xx%	xx%
UK	xx%	xx%
France	xx%	xx%
Italy	xx%	xx%
Rest of Europe	xx%	xx%

Europe Green Mining Market: Analysis

Europe Green Mining Market by Mining Type; 2023



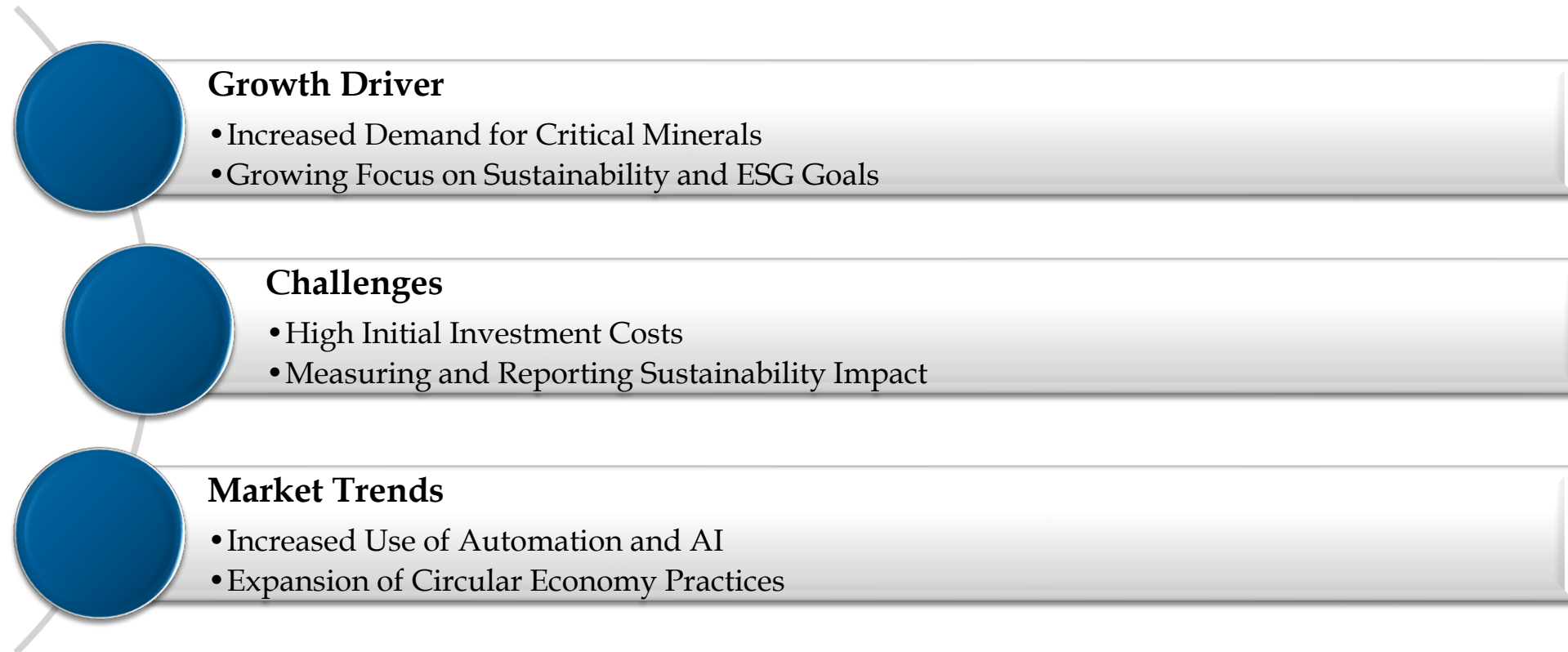
Mining Type	Share	CAGR
	(2023)	(2024-2029)
Surface	xx%	xx%
Underground	xx%	xx%

Europe Green Mining Market by Technology; 2023



Technology	Share	CAGR
	(2023)	(2024-29)
Power Reduction	xx%	xx%
Fuel and Maintenance Reduction	xx%	xx%
Toxicity Reduction	xx%	xx%
Emission Reductions	xx%	xx%
Water Reduction	xx%	xx%

Global Green Mining Market: Dynamics



Global Green Mining Market: Competitive Landscape

Players Profiled

- BHP Group Limited
- Rio Tinto
- Vale S.A.
- Anglo American
- Glencore
- Tata Steel (Tata Steel Mining Limited)
- Freeport-McMoRan Inc.
- Newmont Corporation
- Dundee Precious Metals
- Sumitomo Metal Mining Co., Ltd.
- ArcelorMittal