Top trends in mining

Which trends will continue to drive the future of an industry that equips us with everyday essentials?
Max Luedtke, global head of mining at ABB, explore the four key trends that will continue to top the agendas of mining company CEOs, OEMs and service providers in 2022.
How to reach net-zero emissions?

Many of the world’s largest miners are targeting net-zero carbon emissions by 2050. To reach these targets, mining companies will need to make substantial investments in the electrification of equipment.

In this white paper, ABB takes a deep dive into the practicalities of electrifying mobile mining equipment and, by extension, achieving an all-electric mine.

ABB solutions will help extract lithium in a more sustainable way
Supporting Ioneer in its aim to become a globally cost-effective source of lithium and boron vital to a sustainable future

ABB will be leading systems engineering and optimization for the equipment packages, power management and plant-wide process automation and instrumentation systems for the power generation of Ioneer's Rhyolite Ridge Lithium-Boron Project in Nevada, US.

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Working with Savannah Resources in its aim of zero emission operations by 2030

Together, we will explore electrification, automation and digital solutions for the Barroso Lithium Project in Portugal. ABB will provide technical expertise to outline production control and process solutions for lithium production.

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At different stages, but heading towards success
Ensuring safe and reliable operations at OZ Minerals

OZ Minerals has selected one of ABB's most powerful hoist systems at a major mine site in South Australia. The hoist system will have the highest available levels of safety through ABB Ability™ Safety Plus for hoists, the first fully SIL 3 certified suite of solutions for hoists.

First images of the eMine™ trolley system commissioned at Copper Mountain

“We have been assessing numerous innovative technologies that will reduce our carbon load. Through electrification and capacity increases, we are targeting to reduce our carbon intensity by 50 to 70% in the next five to seven years.” stated Gil Clausen, President and CEO, Copper Mountain.
Supporting grinding reliability for Atalaya Mining in Spain

The ABB long-term service agreement (LTSA) with an ABB Lifecycle Manager has supported a production record at the mine in 2020 and production was approximately the same in 2021.

Boliden x ABB – co-creation for innovation

Today, Boliden’s Garpenberg mine is one of the oldest, yet most modern and productive in the world. Boliden, Sweden’s largest mining company, has worked with ABB to increase the sustainability of the industry as well as production efficiency by using electrical and digital solutions.
What is in the way of mine automation?

The transition to autonomous mining operations is well underway. Mines are becoming increasingly interconnected and this is key for the automation and digitalization of key process controls. Mining Magazine spoke to Marcos Hillal, ABB’s mining product manager Automation and Digital, about the main challenges when automating mines today.

Case study: the use of a digital twin with Advanced Process Control at Boliden Aitik mine

It is not always easy to find the optimal control strategy. Digital twins are powerful tools to help. The virtual environment makes it possible to efficiently test various and extreme scenarios, without taking any risk, and define the best strategy and solutions. In a recent case, conducted in collaboration with Boliden, the performance and benefits of ABB’s advanced process control solution were validated on a digital twin representing Aitik’s grinding circuit.
Lift your productivity to a higher level with the new version of ABB Ability™ Performance Optimization for hoists for even better operational analysis and insights

Performance Optimization for hoists provides actionable information on Key Performance Indicators (KPIs). We’re proud to release the new version of our advanced digital service, with new features, enhanced data visualization, expert support and greater security.

It will further minimize the risk of hoist failure, improve uptime and predictive maintenance insights, and provide remote support to underground mine operators.

"Sustainability, innovation and culture will forge the next generation of mining" according to Tony Makuch

In a riveting conversation with ABB’s Global Division Communications Manager for Process Industries Joanne Woo, Tony Makuch details how sustainability, innovation and culture are the three guiding principles to focus on to accommodate the next generation of mining.