

# Empowering the future of African mining

The mining industry stands at a crossroads, where embracing innovation is no longer optional but essential. With Mining Indaba 2025 exploring the theme of 'Future-Proofing African Mining,' ABB is emerging as a pivotal player in enabling the sector to navigate challenges and seize opportunities.

Through advanced technology, digitalisation and sustainability-driven solutions, ABB is redefining what mining can achieve in Africa and beyond.

African mining operations face mounting pressure to optimise efficiency and reduce costs while enhancing safety and sustainability. ABB's digital transformation solutions address these imperatives by integrating automation and intelligent systems into day-to-day operations.

"We offer several innovative solutions tailored to the mining industry, focusing on improving energy efficiency, safety, and productivity while reducing environmental impact," comments Graham Abrahams, Senior Vice-President, Electrification at ABB.

Automation in mines, such as autonomous hauling and drilling systems powered by ABB's robust technologies, ensures consistent operations with minimal human intervention, reducing the risk of accidents and increasing output. ABB Ability™ MineOptimize is a suite of connected digital solutions that streamline every stage of the mining value chain. By leveraging advanced analytics, real-time monitoring, and predictive maintenance, this suite of solutions assists mines to enhance productivity, reduce downtime, and lower energy consumption.

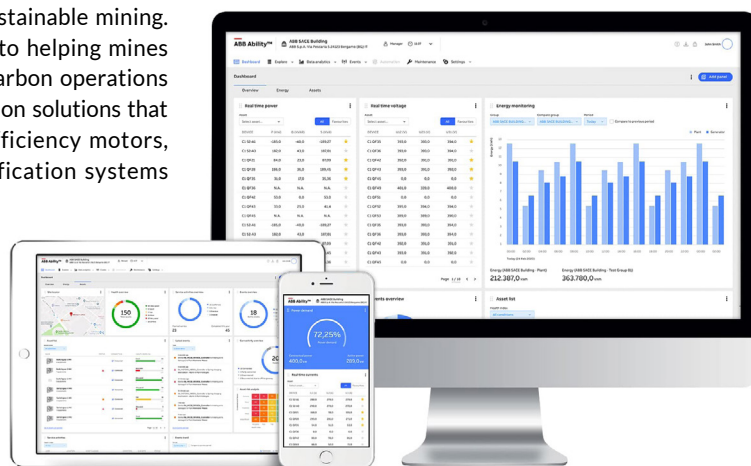
The global pivot toward green energy and decarbonisation aligns closely with

ABB's vision for sustainable mining. ABB is committed to helping mines transition to low-carbon operations through electrification solutions that encompass high-efficiency motors, drives, and electrification systems to replace diesel-powered equipment, slashing greenhouse gas emissions.

Renewable energy integration involves incorporating solar, wind, and energy storage into mining operations. ABB helps reduce reliance on fossil fuels while ensuring consistent energy supply. Energy management systems monitor and optimise energy use so that mining companies can meet their sustainability targets and reduce operational costs.

Safety remains a cornerstone of mining operations, and ABB's technologies are designed with worker protection in mind. From remote monitoring solutions to robotics that perform high-risk tasks, ABB empowers mining companies to foster safer working environments.

ABB's gearless mill drives (GMDs) eliminate the need for mechanical components prone to failure, reducing maintenance risks.



**ABB's digital transformation solutions integrate automation and intelligent systems into mining operations.**

Real-time condition monitoring systems provide actionable insights into equipment health, enabling proactive interventions before issues escalate.

As Africa grapples with its energy transition, ABB's solutions let mining companies align with Just Energy Transition (JET) principles. By supporting a shift toward renewable energy and electrification, ABB ensures that mining operations contribute to economic development while preserving natural resources for future generations.

ABB's impact also extends beyond technology. Through training programmes, partnerships, and collaborations with local communities, ABB builds capacity and skills in Africa's mining sector. This holistic approach not only future-proofs operations but also fosters socioeconomic development in mining regions.

ABB's forward-thinking solutions are tailor-made to address the unique challenges of the African mining landscape. From digitalisation and automation to electrification and sustainability, ABB is a trusted partner in enabling mining companies to achieve operational excellence while addressing environmental and social imperatives.

As Mining Indaba 2025 celebrated the theme of 'Future-Proofing African Mining,' ABB's contributions stood as a testament to the transformative power of technology and innovation in shaping a resilient, sustainable, and prosperous future for the continent's mining industry.

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**ABB Ability™ MineOptimize digital solutions can help to streamline every stage of the mining value chain.**