How could 5G adoption impact mining? The future of mining



Deloitte.com/5G

The mining industry continues to face multiple complex challenges, from uncertainty across geopolitical landscape to the disruption of digital economy, resulting in increased pressure as productivity in operation needs to improve.

To capitalise on digital revolution, mining companies could benefit from 5G be the catalyst for this transformation!



Up to 25% increase ore production



Up to 40% drill rig operations



Up to 20% energy savings

5G networks might have the potential to provide opportunities to the mining industry such as automation and remote operations due to improved coverage, lower latency and higher reliability at every stage of its business operations.

Creating safer, more efficient and productive mines could be achieved through

Automation

Provides a **consistent and efficient operation** of equipment while providing safer working conditions

Wireless broadband

In-pit broadband mobility enables to **communicate** and access business data from anywhere at any time

Data analytics

Analysing equipment conditions for **preventive** maintenance

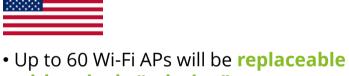
Several 5G related use cases in the mining industry are in trials or have been deployed around the world, enabling mining companies to improve operations.



- Trial on the potential of 5G as part of an autonomous haulage system
- an increase in freight transport production rate up to 30%

Robotic dump trucks enabled





- with a single "solution" Already completed eight underground
- and open pit mining deployments



• Increase of **2,000 hours** of drill rig operation

~10 percent saving in fuel consumption

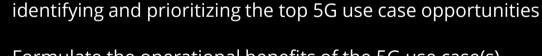
corresponds to a reduction of 9,400 metric tons of CO2

How can Deloitte help?

Deloitte translate business and industry needs into technical requirements delivering value added endto-end 5G solutions that lead to meaningful business outcomes.



IDEATE AND PRIORITIZE DEVELOP THE



Select the areas to be improved with 5G use cases, ideating,



BUSINESS CASE DESIGN TECH

Formulate the operational benefits of the 5G use case(s) defined and associated business case value proposition



REQUIREMENTS

considering deployment strategies and application requirements

Start with a point of contact (PoC) first to monitor and evaluate the 5G use

Define and design use case technical solution architecture and requirements,



BUILD AND EVALUATE

case(s) performance and then proceed with rollout Define overall governance, operating model and



OPERATE AND MAINTAIN

procedures to ensure the sustainability in business as usual (BAU) Sources: Deloitte TMT Predictions 2021, Huawei, IDC, Gartner, The Business Research Company

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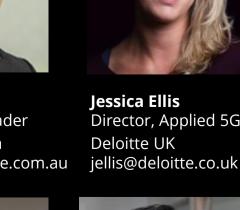
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