

Some sexy stuff is coming for the mining sector

By [Danette Breitenbach](#)

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If the mining industry is to survive and propel itself into the next decade, innovating is a necessity, not a choice.

However, innovation in mining differs from other sectors because identifying technologies that work well on surface does not always translate successfully underground.



“In the world of tomorrow we need to have 24/7 mining operations – short-term modernisation and then continuous mining is where we must go as an industry,” says Peter Turner, senior vice president, health & safety environment, Sibanye Gold.

Despite making huge strides, he says, it is the extraction process where there’s still a bottle neck. “In the last 40 to 50 years nothing much has changed at the stope faces, so things need to be differently” says Turner.

Technology is the answer

Previously only a PhD student could operate a computer, but today’s technology is so intuitive that a three-year old can work an iPad. The complexity around technology is disappearing.

“We might still need a phased approach, but we need to bring technology into mining,” says Bongzi Ntsoelengoe, technology manager, Kumba Iron Ore. The company recently installed six automated drills. The same operators that once manoeuvred them sitting in the cabins, now sit in state-of-the-art AC-controlled room operating the drills remotely.

“We are using drones for surveying that, in a matter of hours, can scan your entire mine. Future smart technology looks at really pushing the boundaries,” she adds.

Make zero harm possible

“Mechanisation is imperative for our mining. Machines can go into areas where people cannot, for example drone technology applied underground. The Holy Grail is satellite technology to locate people, equipment and excavations in real time. If we can pull that off then zero harm will be possible for the first time ever,” says Fred Cawood, director, Wits Mining Institute (WMI), faculty of engineering and the built environment, University of the Witwatersrand.

Two criteria are important underground, he adds. “The first is putting distance between people and the area of risk and the second is improving efficiency.”

Creating the right platforms

Despite making good strides with modernisation in platinum mining we have yet to crack it in gold mines, adds Turner. Cool things are not just happening underground, but also in the open pit and we are seeing the cost benefit of that. There is also good stuff happening in the diamond sector.”

It is taking it to the next level he says where we face challenges. “It is really looking at improving the digital backbone, so that we can establish a signal underground. The gold mining sector is doing research on platforms that will take us further. Some sexy stuff is coming.”

ABOUT DANETTE BREITENBACH

Danette Breitenbach is a marketing & media editor at Bizcommunity.com. Previously she freelanced in the marketing and media sector, including for Bizcommunity. She was editor and publisher of AdVantage, the publication that served the marketing, media and advertising industry in southern Africa. She has worked extensively in print media, mainly B2B. She has a Masters in Financial Journalism from Wits.

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