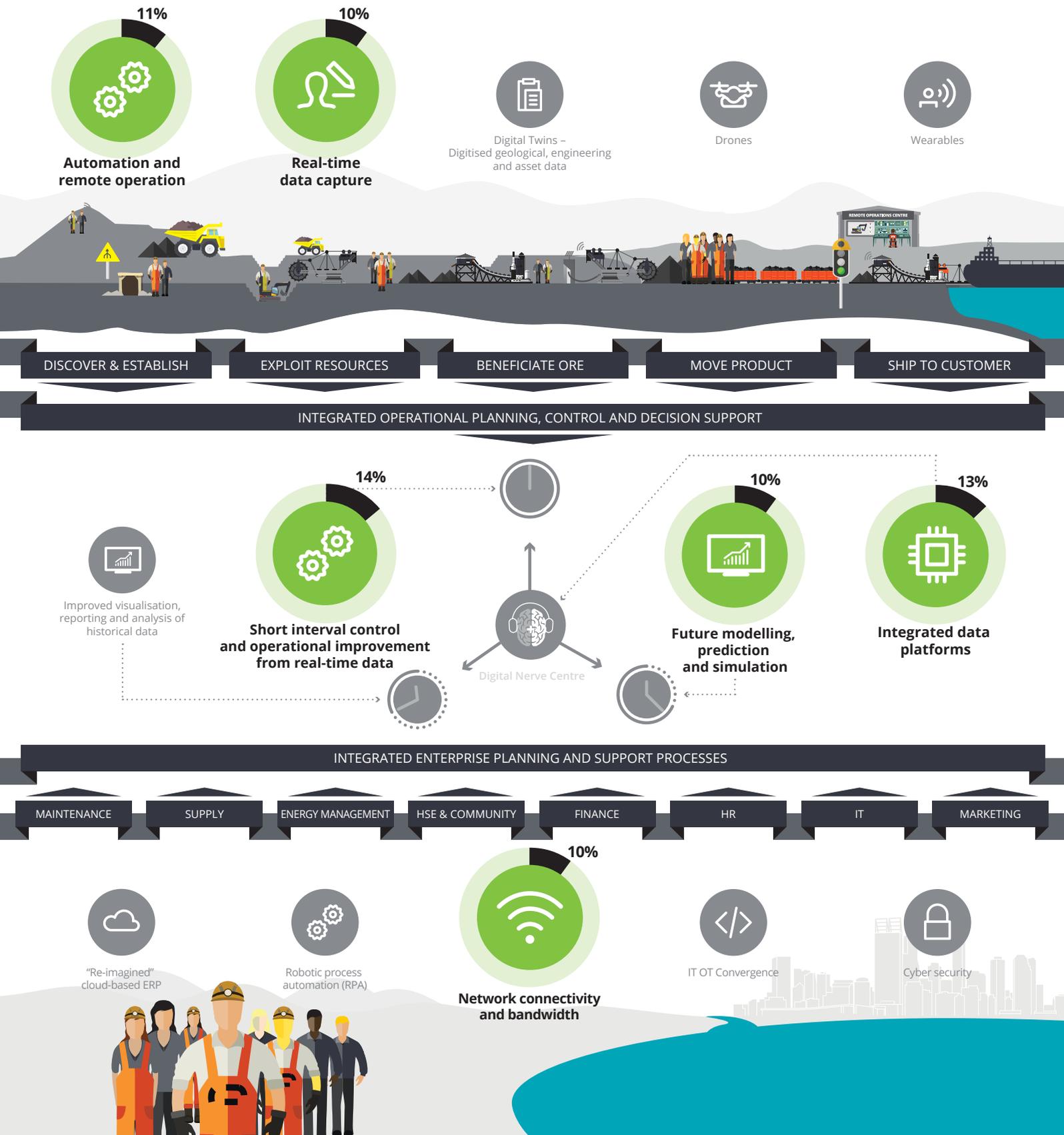


The digital mine – what does it mean for you?

This year at the Diggers & Dealers mining conference in Kalgoorlie, Deloitte posed a question to over 160 attendees at our conference booth and breakfast event, asking:

“Where should mid-tier and junior mining organisations invest their time and resources in digital technologies to deliver value to their business?”

Our poll included representatives from mid-tier and junior miners, mining services organisations, technology providers, and financial institutions, and overwhelmingly they converged on a few key digital capabilities, which are highlighted below, and discussed overleaf.





Automation and remote operation

“The outlay is huge, but it’s happening, and we need to keep our eye on this prize”

While it’s seen as capital-intensive exercise, you told us that miners should keep their eye on this prize, else risk falling behind competitors, or reducing their attraction for future acquisition. Even if it is not feasible for existing operations, it should be considered for new mines, leveraging the capability and investment being made by equipment manufacturers and service providers.



Real-time data capture

“So much data, but we don’t know what to do with it all”

You are increasingly aware of the potential value of real-time sensor data in enhancing production across front-line operations. Most equipment now has this capability inbuilt, from trucks, to diggers, to drones.

The challenge will be to manage all the data generated to make it meaningful, useful and insightful.



Short interval control and operational improvement from real-time data

“There’s no excuse for this not to be a core competency, no matter how big the organisation is”

Many of you discussed the direct link between real-time data capture and short interval control, to reduce the variability between plans and actuals, and drive forward operational improvements. Where the industry is finding it challenging, is the behavioural side of operators understanding lead and lag indicators, and the corrective actions to take to achieve a positive result.



Future modelling, prediction and simulation

“I don’t know where the possibilities end in this space”

There was genuine excitement about where predictive modelling could take the industry, especially in safety analytics, mine planning, and preventative maintenance. However, most recognised the need for integrated data as a first step to making this a possibility, and the challenges with in-house capability, in skills such as data science and analytics.



Integrated data platforms

“This has vexed us for decades”

The lack of integrated, accessible, accurate, timely, quality data has been vexing miners for decades. You told us that some mining businesses lacked expertise in achieving an integrated data approach, while others simply weren’t prioritising investment in this space.

There is a growing consensus that integrated, well governed data platforms are critical enablers for the value-adding analysis described previously.



Network connectivity and bandwidth

“Critical to the success of the digital mine, but tough to achieve”

Most of the digital capabilities described previously require connectivity, and this is still proving challenging for most of the organisations we spoke to. Especially in underground environments, remote locations, and emerging economies.

There was a high level of confidence from the people we spoke with that this challenge will be cracked in the next 1 – 2 years.

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