
IMDEX™


Building the technology
today to find the resources
for tomorrow.

There is no Plan B

To hit emission targets, we need to change the way we generate electricity.

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There is no Planet B

To hit emission targets,
we need to change the way
we use resources and generate power.

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The resource sector is dealing with a series of trends that fundamentally challenge traditional approaches

Shifting consumption patterns

Globally, decarbonisation and the electrification of transport are reshaping commodity demand

Increasing geological challenges

The “easy tonnes” are gone; ore grades are declining, and profitability will be impacted by operating in increasingly challenging geology

ESG outcomes driving competitiveness

Access to capital and license to operate are tied to an increasingly high bar for ESG outcomes

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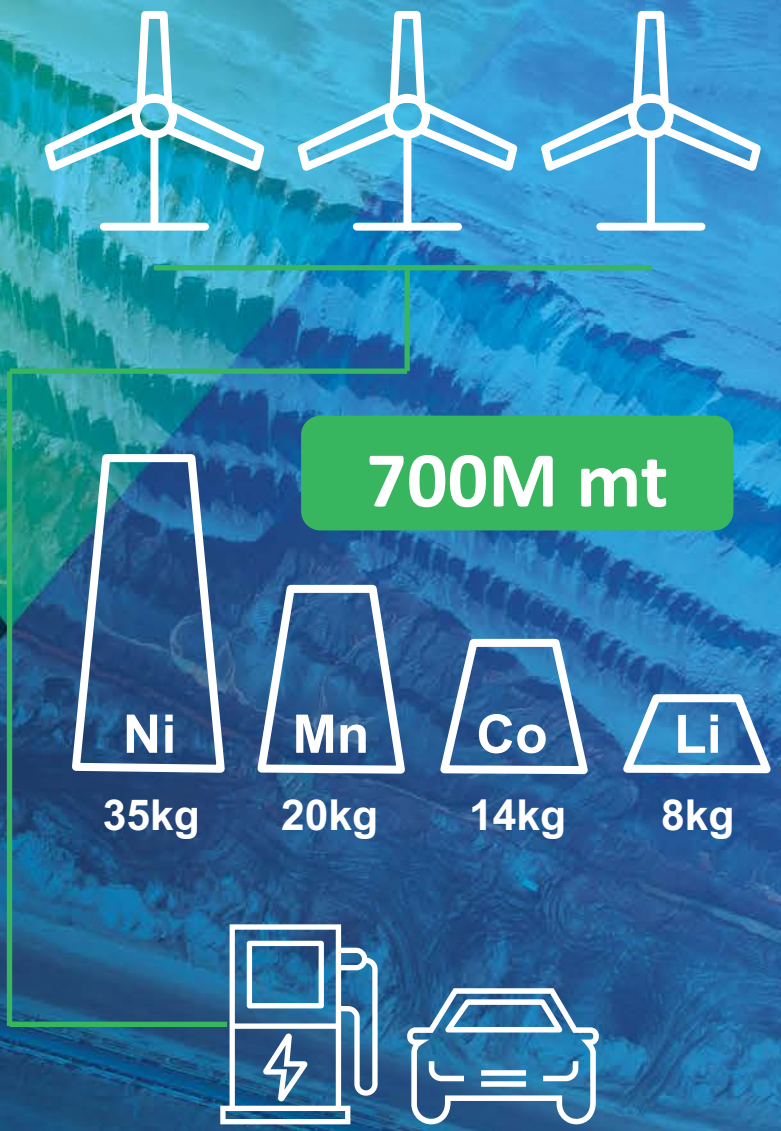
We all know mineral exploration and mining is critical to this transaction…

We need more Copper than ever before.



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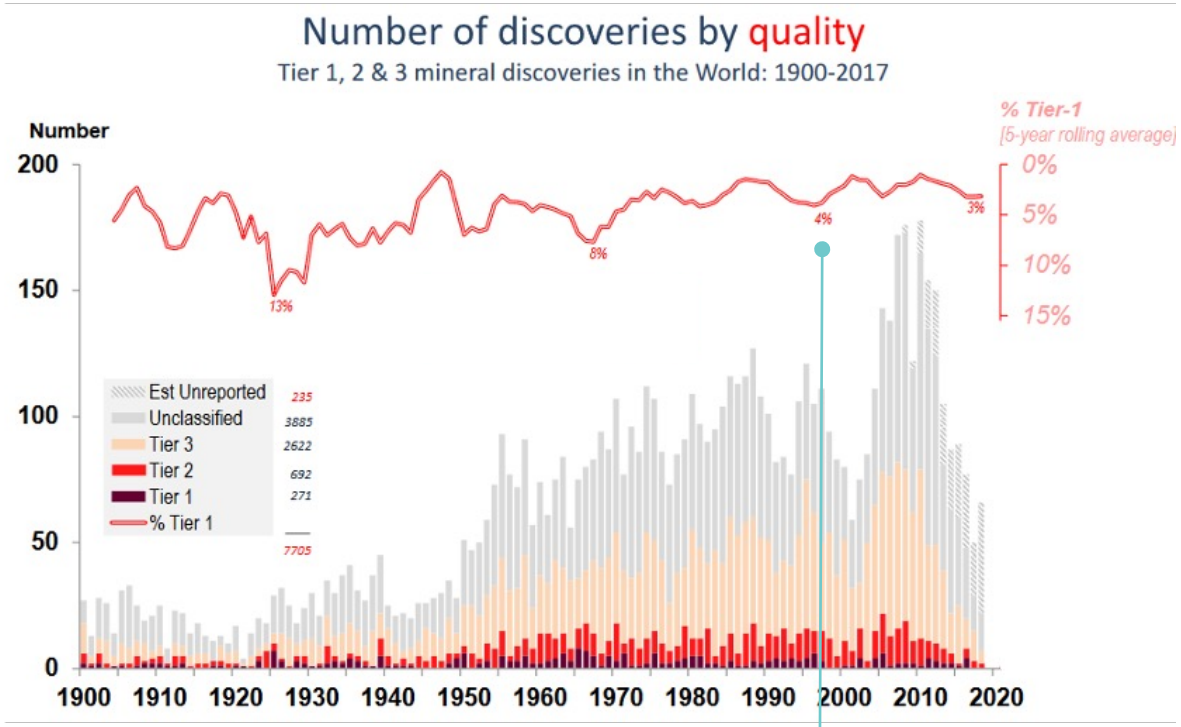

We also know global discovery rates are dropping…

Over time, Tier 1 discoveries have become less frequent

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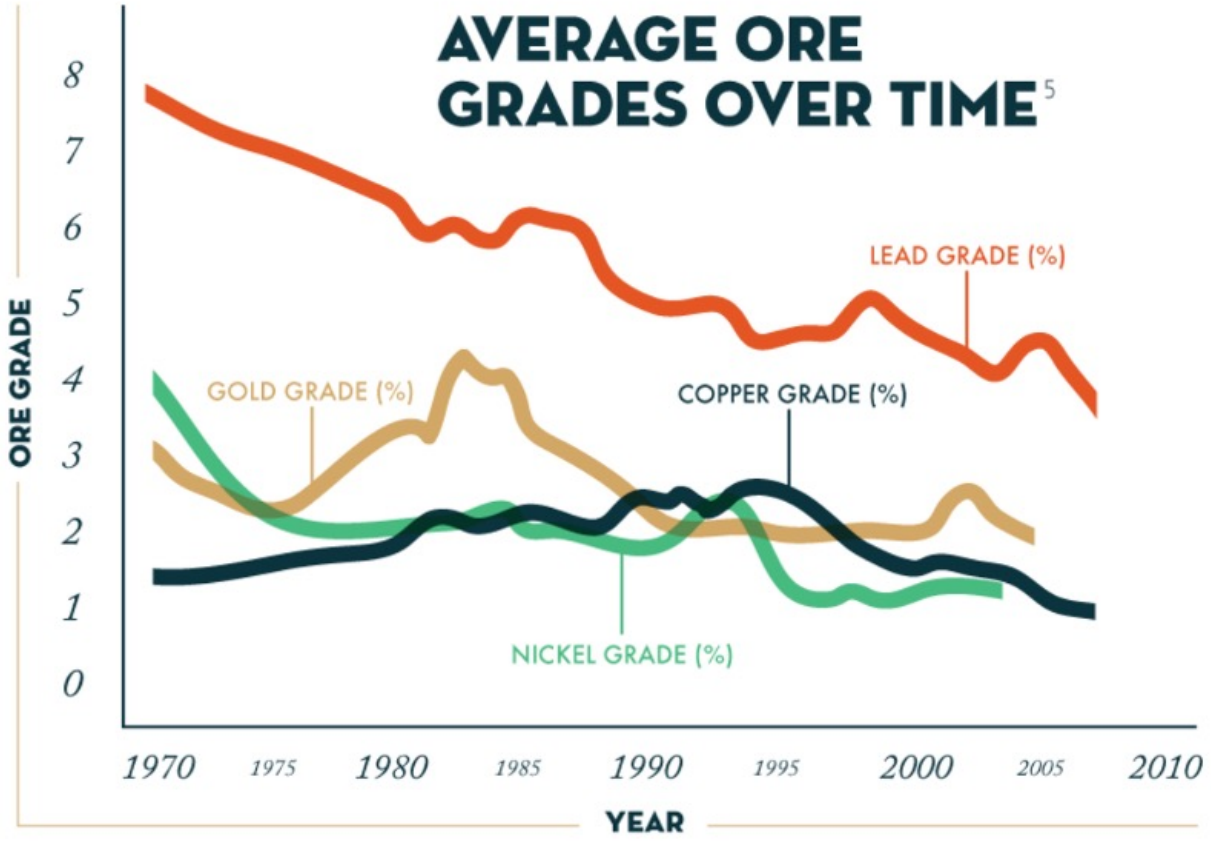

and commodity grades are decreasing…

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So can we do more with what we have?

Did you know…

An analysis of 420 junior exploration floats on the ASX between 2005 and 2017 … had an average rate of return of 76 cents per dollar.

One hundred and ninety-two gold stocks returned an average of just over 50 cents.

Copper returned just under 50 cents.

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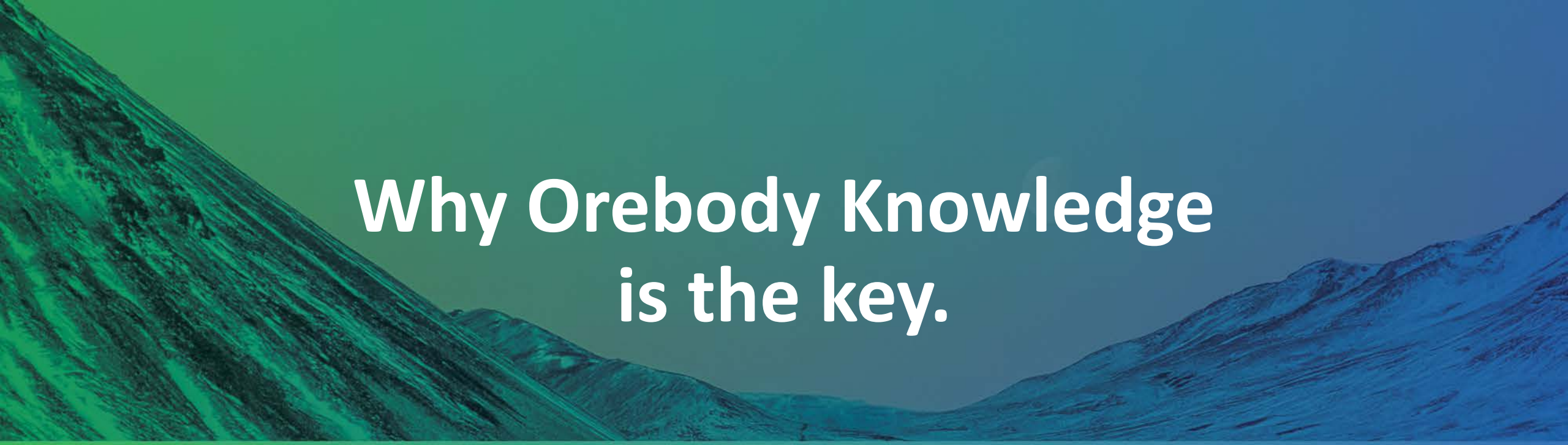

Why Orebody Knowledge is the key.

Geoscience is the key link that informs all other activities in the Mining Value Chain.

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Activity Cost Drivers
Verses
Spatial and Orebody Factors

Activity Cost Drivers

Verses

Spatial and Orebody Factors

10x greater value to be unlocked

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Activity Cost Drivers

Verses

Spatial and Orebody Factors

10x greater value to be unlocked

Large Scale Extraction

Verses

Precision Mining

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What happens if you get it wrong?

Asset write-downs are attributed to one of three things, one of which is orebody knowledge (OBK).

Yet OBK gets the least attention. Why?

- The tools for measuring OBK are inadequate;
- The connection between the increased spend earlier on versus the value realised further down the mining value chain, is not well articulated
- The change management required to embed OBK is too complex
- It must be translated into financial value

Three large resource asset write-downs have been disclosed this reporting season already.

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CASE STUDY: Value Impact of Information and Technology

RESOURCE DEVELOPMENT PROJECT

The value increase is split between the benefit of a shorter exploration + design program ($208m) and the benefit of improved information quality ($227m).

If the block model is the common language - $ are the common motivation

Impact of managed exploration program on Project NPV

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What is IMDEX doing about it?

We place OBK at the centre of everything we do.

Quality

Leading sensors, QA/QC, digital workflows and Artificial Intelligence

Quantity

Cost effective, repeatable sensor-based data

Time Savings

Actionable information in real-time

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We approach industry challenges through an IoG V IoT lense

Chat GPT, what is IoG?

“the Internet of Geosensing forms a predictive, preventive, and personalized approach to mining. This technological ecosystem not only enables real-time decision-making and proactive mitigation strategies but also transforms raw data into valuable geological intelligence. The insights generated help optimize resource allocation, improve operational efficiency, and enhance the sustainability of mining activities, ultimately leading to higher productivity and lower operational costs.”

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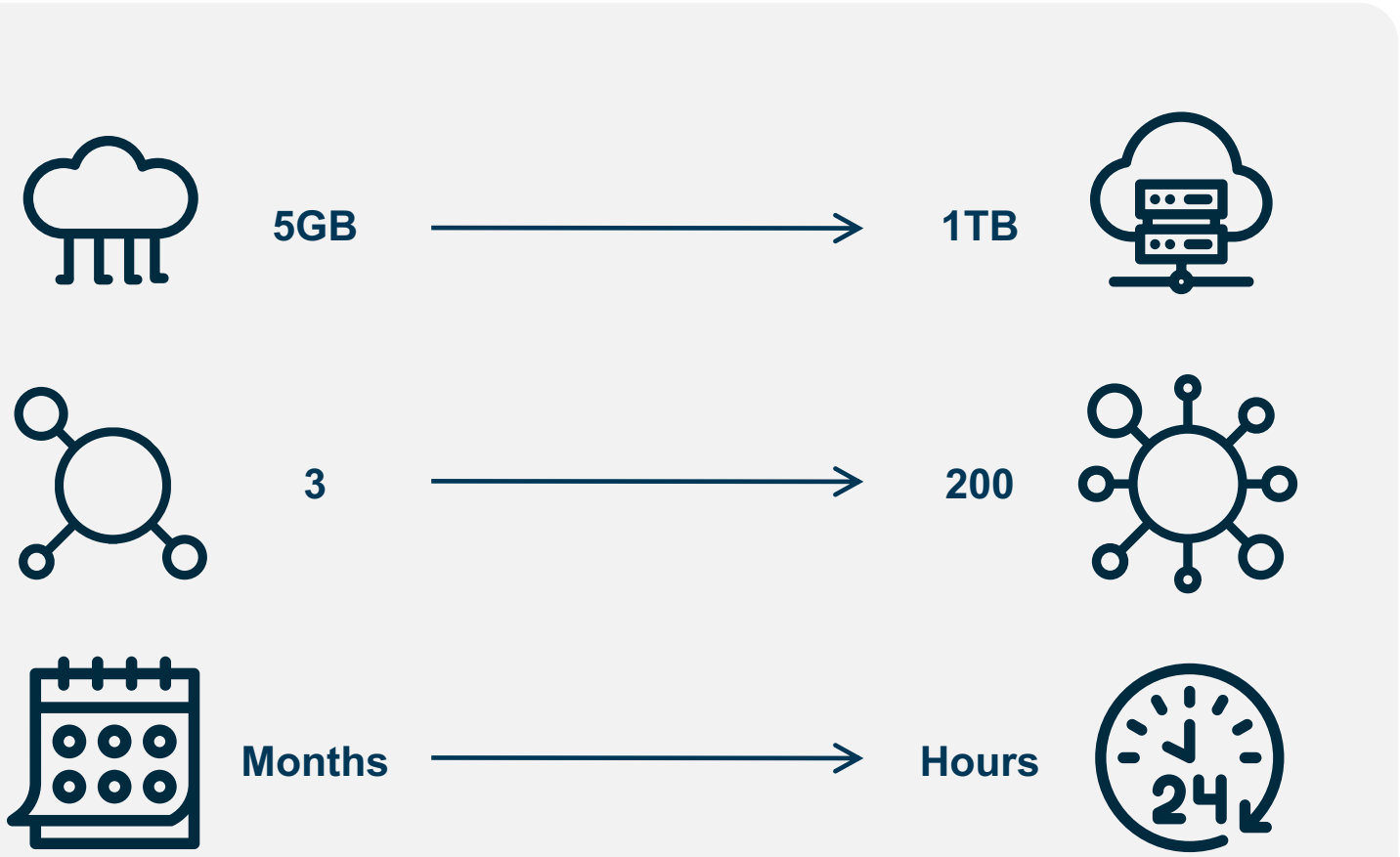
Our modern sensing tech can help…



But this comes with it's own challenges…

At a recent conference Rio Tinto's Lead Geoscientist called out the challenges they have had with what he called "a tsunami of data" at their new Winu discovery.

- Samples have more than 200 channels of information
- Generating terabytes of information per drillhole
- Delayed access impacts their ability to utilize the data
- They have realized that they need to work with industry partners to improve their processes

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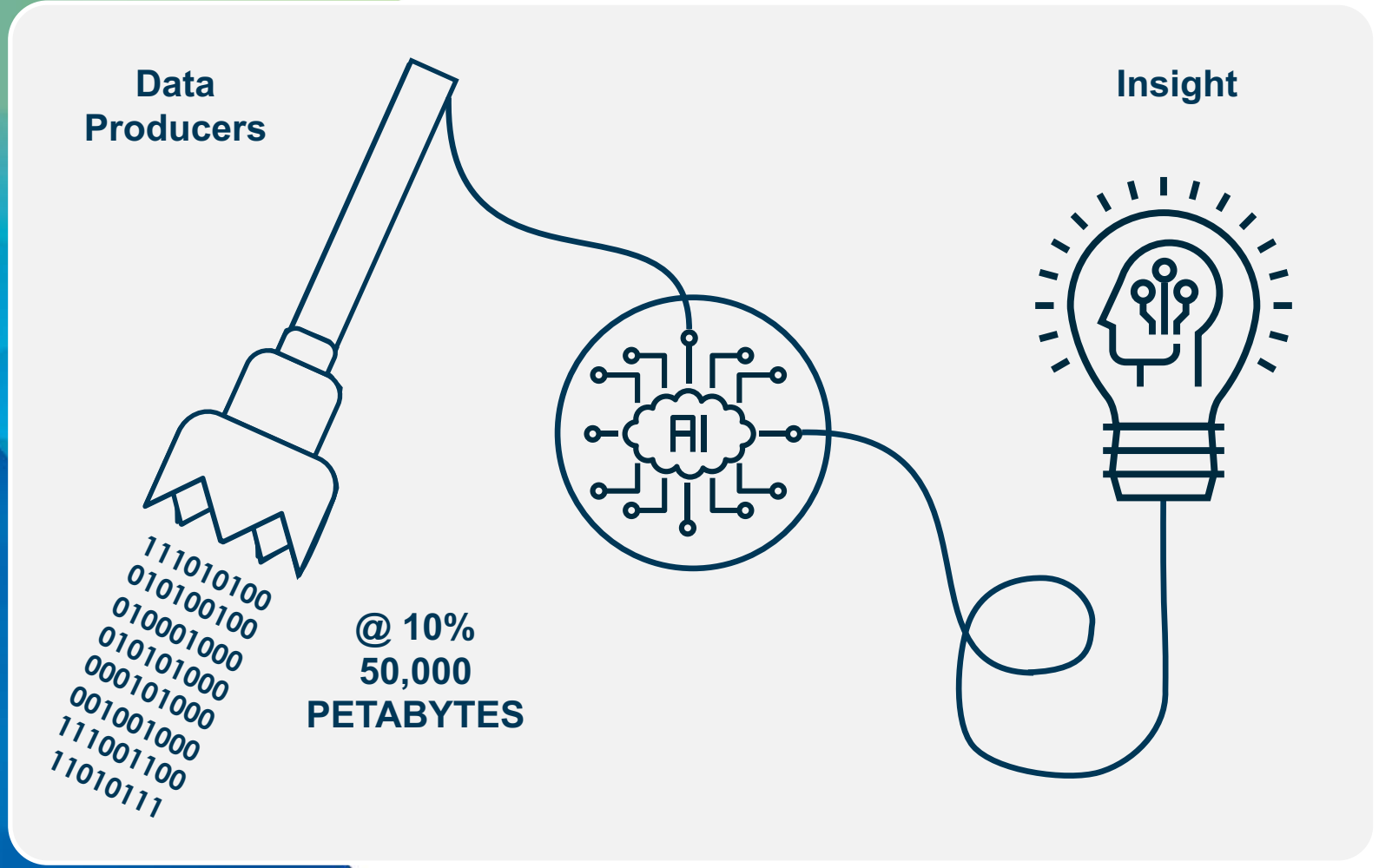
Software and AI are required to transform the "tsunami" of data into insights and OBK.



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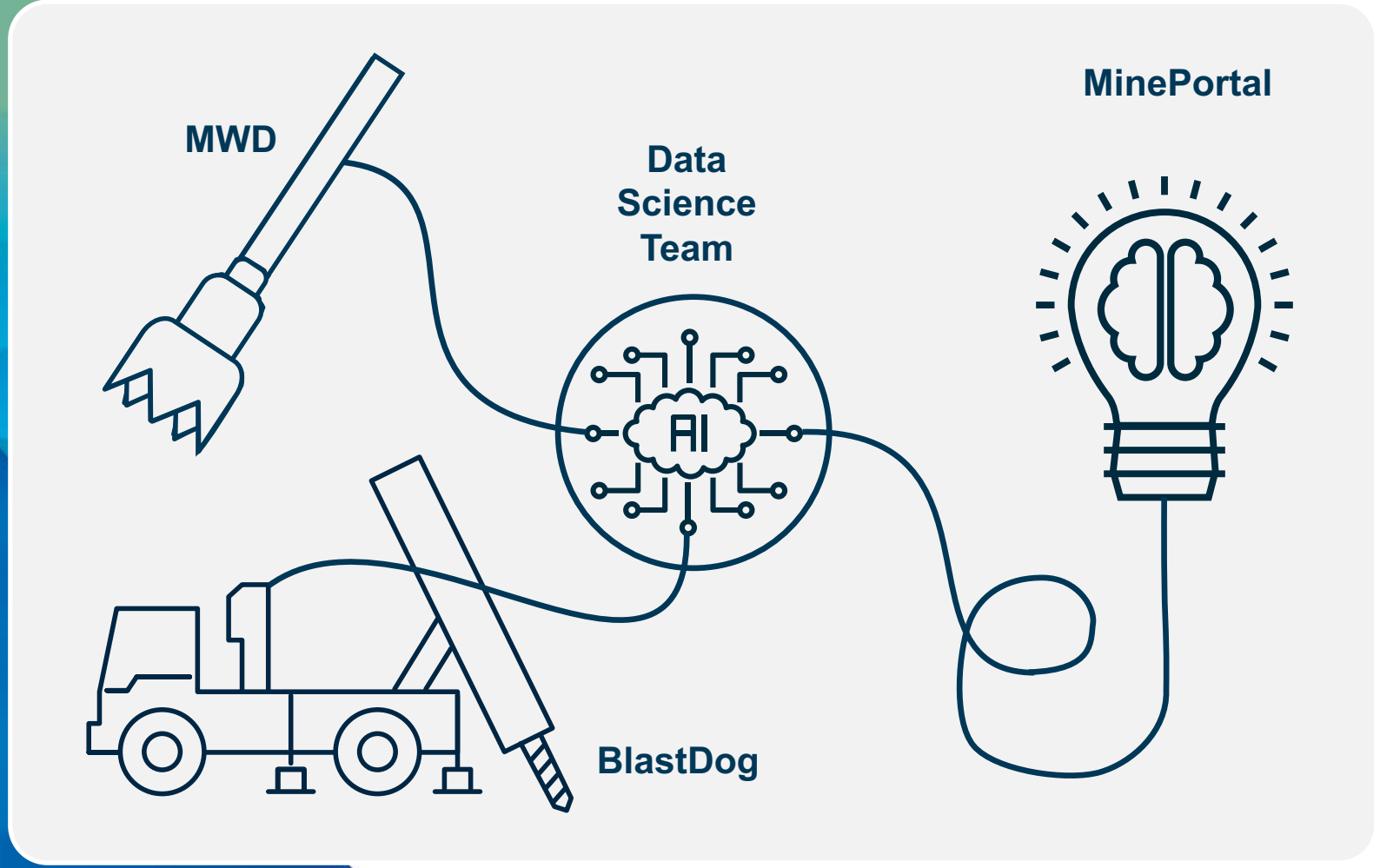
Mining companies can then make real-time decisions that have measurable impacts on productivity and mineral recovery.



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What do we look for in designing and deploying new technologies?

Good geoscience representation on the Board and Executive

Innovation built into KPIs of GMs

A willingness to work with us to develop technologies

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Why IMDEX?

40 Years of Heritage

28% of exploration holes globally

>2,000 connected sensors

IMDEX™

A leading global mining-tech company


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for more information, visit
www.imdexlimited.com
thank
you for
listening.