



EXPLORING 10 INSIGHTS INTO VALUE CREATION THROUGH 4IR, DIGITAL & ESG

AN INTRODUCTION TO THE 2023 STUDY

Mr Roger Baxter, CEO, Minerals Council South Africa

22 February 2023, Leading on Innovation and 4IR in Mining Event



Previous Study (2020/21)

Insight 1: The CEO drives the digital agenda

Insight 2: Digital champions and innovators are emerging

Insight 3: Investments in digital technologies are growing

Insight 4: Digital technologies are delivering real benefits

Insight 5: The greatest benefit is expected in core operations

Insight 6: Industrial IoT gets the biggest share of the wallet

Insight 7: The workforce is changing

Insight 8: Organisational culture is keeping up with the times

Insight 9: There are challenges to overcome

Insight 10: It's all about the data

“This yearly report has been fundamental in our understanding of the mining industry and has directly contributed to the growth and success of our company. We are grateful for its insights and look forward to continued success with its guidance. Thank you” Lee Bothma,
Chief Sales Officer, Nerospec
OSCON



2022/23 Study Ten Insights (1-5)

Insight 1: Mining CEOs and their Executives are being deliberate

Insight 2: Technology is being applied where it has the greatest measurable benefit

Insight 3: The hunt for value requires cooperation and compromise

Insight 4: Digital tools don't just measure, they contribute

Insight 5: The imperatives for sustainability, and the crown jewels

Many Insights – in fact over 30 – were extrapolated from the Study, but again summarised into Ten – thereby addressing the categories of **Vision, Priorities and Strategy; Workforce; Business Sustainability, ESG Imperatives, Stakeholder Collaborations**

Another striking differentiation from the previous Study is how **prolific and integrated** all of these issues have become. We can no longer speak or think about these in silos - they are integrated, **holistically** connected, and comprise **systems of systems**

2022/23 Study Ten Insights (6-10)

Insight 6: We are up to the challenge and have the tools to win

Insight 7: Mining is about people – and we need to fight globally for talent

Insight 8: ESG – critical for business survival or tick-box?

Insight 9: Regulations shape ESG (for better or worse)

Insight 10: ESG drives long-term value

What is glaringly obvious though, is that our miners have distinctly moved on from pondering ‘the why’ (in terms of digital transformation), to ‘the how’ and ‘the what’. This is encouraging and so mining is leaping out of the perceived notion of being a laggard industry in this regard.

Our industry leaders are driving the digital transformation vision hard and expect to enjoy the results in the next few years. They are also very clear about their companies’ role in meeting the ESG expectations but have powerful and thought-provoking insights to share and enact. We need to hear what they say (and at times “keeps them awake at night”).

It's the new normal

“Use, re-use, optimise and re-use again” ... And so some miners emphasise the importance of ‘data-mining’

Modern Integration requires new approaches – new ways of thinking – out-of-the-box engineering, and hence demand new skills to be enacted



CEOs intuitively know (and expect) that data-flow and information-sharing will occur for the ESG Functions by means of the digital systems. They, and their technical teams, are thus exploring the mechanics (i.e. standards, reference architectures) of how this would be improved and materialised

4IR technologies to enable a more modern mining sector

Pro-active and Visionary leadership

“we can wait no longer- we will get things done attitude”
(CEOs)

Digital transformation and ESG practices are paying off – qualitatively and quantitatively

Our CEOs and mining operations across the nation are taking on the mantle of becoming ‘eco-system’ leaders in for the host-communities they operate in. All stakeholders to get on-board.



4IR technologies and ESG responsibilities to addressing macro issues

...And finally...

- Our CEO's and Senior Executives have spoken; we listened
- 4IR, Digital Transformation, ESG is not easy, but we can do it
- It's a Team and collaborative effort – Willing partners sought
- Tools and Solutions do exist
- Our expectation: this Study and its Results will have a profound effect and influence on how we mine metals and minerals in/for the future.

The Report is available online from the PWC, MCSA, and MMP web sites



Thank you

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