



MINING MEGA TRENDS & THEIR IMPACT TO YOUR ORGANISATION'S RESILIENCE

The mining industry plays a crucial role in the development of Nations and industry. Importantly, the mining sector will play a key role in the transition to commodities that will fuel future growth. To do this, Executives need to make critical decisions to transform their operating methods all whilst maintaining a responsible approach to the environments they operate in and meet social expectations and norms. Global Data has produced a series of research papers into mining mega trends which highlight key opportunities and challenges for Executives to consider when deciding to invest for sustained business performance.

Underpinning superior business performance is the maturity of an operational resilience program, its agility to adapt to complex operating environments and the ability to gain meaningful insights from its implementation. The positive impact that a practiced resilience capability has, will only be fully understood when a response is required. Establishing and maintaining a mature resilience program is critical in ensuring an organisation can effectively respond to any incident and, importantly, recover back to business as usual whilst minimising the impacts and enhancing their reputation.

This article explores the impacts to your operational resilience program when addressing mining's mega trends. Crucially, by leveraging technology, establishing processes, and allocating best resources to your data driven capabilities, you will be able to assure stakeholders that you can meet your objectives regardless of the circumstances.

THE RESEARCH TOPICS ADDRESSED ARE;

1) ESG -

the key risk facing the industry identified by White & Case in their 2022 Mining & Metals Insight report

2) Technology adoption (IoT, AI & digital twins) -

driving efficiency and effectiveness across mining operations

3) The COVID-19 Pandemic -

Global supply disruptions continue to make the operating environment difficult to predict and manage

4) Commodity Markets -

pricing is strong, but how long will it last in an inflationary environment?

5) Workplace Safety -

technology adoption will play a key role in people safety into the future

Each topic presents risks and opportunities for mining operations and will increase the complexity of the operating environment.



If you do anything, do this...

The three key considerations for your operational resilience program should include;

1) Complexity of preparedness – move beyond risk management

- First you have to accept, to a point, that mining is an inherently dangerous business and, whilst risks are identified and mitigated, disruptions may occur that could impact your ability to operate.
- Identifying key threats is important, but comprehensive mitigation strategies do not mean things won't happen.
- Investment in your resilience capability ensures that you are able to respond quickly and appropriately to any event.

- Cyber threats - with the adoption of greater technology integration to the operating environment, your response capability needs to meet this challenge. No longer can an IT or cyber team run a response on its own, functional integration into the broader business response is the key driver to ensuring the impact of any cyber breach is minimised.

- Speed of a response – initiating a rapid response and getting your best team in place to manage any incident is critical. Every moment counts early and leveraging your best people, regardless of where they are located can be the difference between a good outcome and a great one.

2) Stakeholder management – who is running your response?

- More than ever, your stakeholders, be they internal or external, can be the key to your success. Do you engage early and be proactive, or do you sit back and wait for them to drive you? Increased demand from all stakeholders for greater transparency through data-based reporting allows you to tell your story on your terms.

3) Redundancy

- With greater digital adoption, organisational risk profiles have increased markedly. Business efficiency and effectiveness make sense in an operating environment but creating dependencies in your resilience platform by integrating with other data sources or suppliers reduces your overall program maturity. If you lose your business systems access, which some of our clients have had happen to them in the past, being able to access, communicate and the ability to continue to operate via your resilience platform gives you the complete redundancy required.

With a growing demand for ESG related disclosures, a clear objective about how you approach stakeholder management is a worthwhile investment that will pay dividends over time.

MEGA TREND THEMES & IMPLICATIONS



ENVIRONMENT, SOCIAL & GOVERNANCE (ESG)

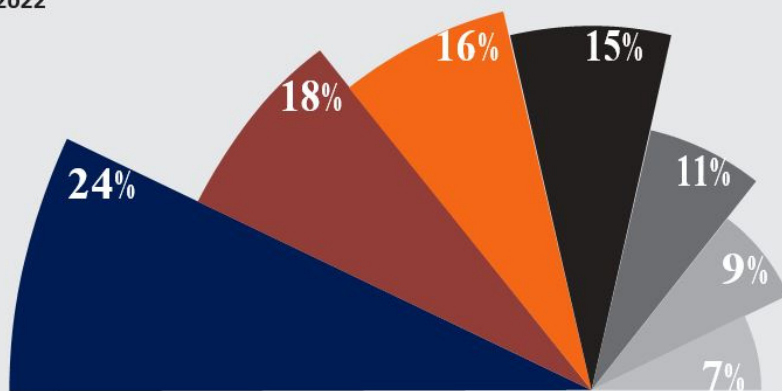
Opportunity – to tell your story on your terms. As demand for greater data and transparency grows, being proactive in telling your story and how you want to do so is more important than ever.

Risk – don't be last to the party. Playing catch up here will be difficult and last in will lose. As regulation focus turns in this direction, you want to have a plan ready for future needs.

Implication for operational resilience – having a clearly visible, technology and data driven operational resilience program is now the minimum acceptable standard. Adopting technology now helps you to be ready for the next business disruption but also allows you to prepare for the future. Crisis management is a key area of assessment in the Governance pillar of ESG rating for the Mining sector.

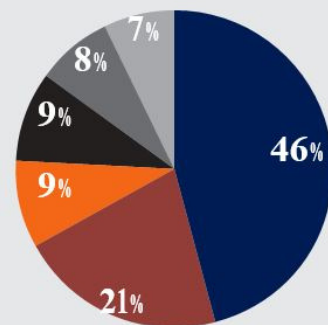
What is the key risk for mining & metals?

2022

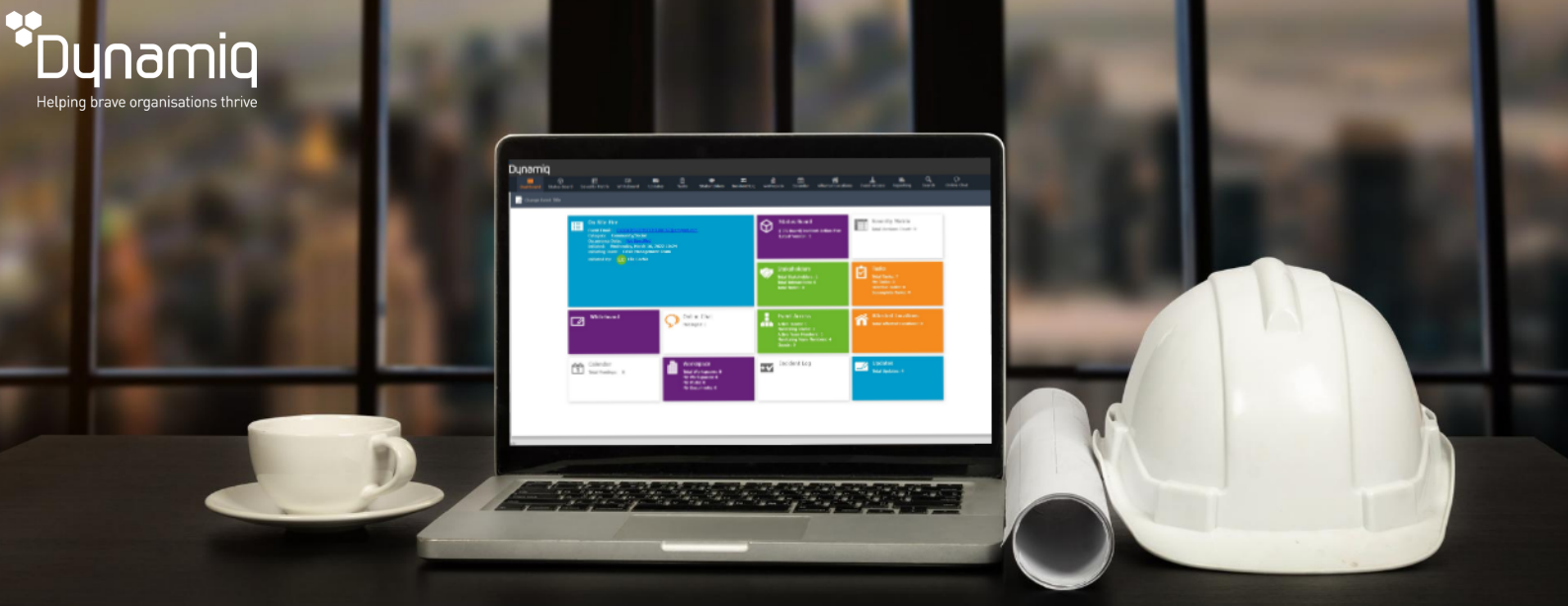


- ESG
- Resource nationalism
- Climate change regulation & shareholder activism
- Supply chain disruption & labor shortages
- Chinese slowdown
- Energy costs & inflation
- Other

2021



- ESG
- COVID-19 supply chain disruption and demand destruction
- Trade tensions
- Chinese slowdown
- Other
- Resource nationalism



TECHNOLOGY ADOPTION (IOT, AI & DIGITAL TWINS)

Opportunity – improve operational efficiency and effectiveness. The benefits to production, people safety and to drive costs down are enormous. Digital transformation is occurring at a rapid rate across all industries and the mining sector will benefit significantly. This applies to your resilience program too!

Risk – cyber threat changes the profile of your operational resilience. Contingency and redundancy need to be looked at in different ways.

Implication for operational resilience – your IT & cyber teams need to be part of the business conversation. No longer can the tech issues be resolved by the tech team alone. Integrating your technology response into your business response, seamlessly, is the key test here.

BEWARE – whilst technology integration is important to support your business needs, in operational resilience it can also be a pitfall. Integrating your resilience technology with other data sources or suppliers removes your redundancy and potentially impacts information security. There is a clear requirement to have robust IT security platforms and processes and procedures to ensure you remain secure.

COVID-19 PANDEMIC

Opportunity – those who have prepared well and have implemented their business continuity and recovery plans well, win.

Risk – global instability, inflationary impacts, economic recessions and supply constraints will continue to test you and your teams. We are not in a normal operating environment nor will we be for some time yet.

Implication for operational resilience – continue to review, test and refine plans whilst ensuring plans are flexible enough to guide any response. Check business continuity plans for currency and relevance. Set clear objectives and communicate them to your people so they know what is and isn't a priority.





COMMODITY MARKETS

Opportunity – *invest in the good times.*

Whilst prices are high across the board, investing in your resilience maturity is important to help you achieve your goals and objectives into the future as well as enhancing your attractiveness to financial investors and markets.

Risk – *volatility.*

Whilst prices remain high across all commodities, volatility is likely over the next few years.

Implication for operational resilience – *boom or bust.*

Often investment in resilience capability comes under pressure when a cost focus is in play. By adopting a technology platform supported by a blended support solution, you can maintain your operational resilience maturity through a consistent investment and implementation program.

WORKPLACE SAFETY

Opportunity – through technological adoption there are significant opportunities to identify trends and thereby reduce the risk to your people and allow them to focus on creating greater value.

Risk – increase in cyber risk, the ability to run an effective response to realised risks and the ability to respond rapidly.

Implication for operational resilience – ensuring that your plans, training and exercising align with the change in the operating environment. Emerging or unforeseen implications need to be considered. Knowing who your best people are, regardless of their location and being able to bring them into a response leveraging technology is paramount.



SO, WHAT'S MISSING?



Whilst the mega trends, when adopted in the right areas, will improve your business outcomes and ensure your operating sustainability, there are many intangible elements to your operating environment that are worthy of time and consideration also;

- People – systems and processes help us be more efficient and effective and can support better decision making. Even operating on a best endeavors' basis, people make mistakes or bring a hidden bias into what they do or the decisions they make. Human frailty cannot be overlooked when it comes to the application of what we do on a daily basis. Creating an environment where people can be their best is a competitive advantage in itself.
- Boundary pushing in the pursuit of competitive advantage – we have all seen the idealist of ideas used with the wrong intent. In a competitive operating environment, edges will be pushed in the pursuit of achieving objectives. What you choose to implement and how becomes important when new frontiers are explored. Your objectives must be clearly defined and achievable.
- Complexity of change – people love change, when it happens elsewhere. The more complex the operating environment the more uncertain things become, and this adds pressure, sometimes needlessly. Having a resilience capability that is flexible and adaptive to the complexity of change is vital.
- Unforeseen implications – with best intentions comes unintended consequences. Much like the complexity of change, often introducing new operating methods makes changes to your environment that were not foreseen. Ensuring your plans allow for this is a must.
- Risk culture – what is yours? Have you clearly defined what sort of decision making you expect from your people? Are you an encouragement or punishment culture? Good culture is built from good leadership and demonstrating what is important and why helps shape the way your business operates.
- Shift from risk management to response (mitigation and consequence management) – risk identification is important, but mitigation and consequence management are even moreso. A balance needs to be struck between the effort and investment in risk verses the investment in your response capability. Accepting that things will happen in complex operating environments and putting your effort where it matters needs greater thought.
- The importance of data – what story do you want to tell and who do you want to tell it? Having a clear view of what is important and why, and then setting about collecting the right information to support your view should be the priority for any Executive today.
- Lift the visibility of your operational resilience program – internally, the importance of the program and the capability within should be understood and given its due credit. Externally, capital providers, regulators and insurers want to see that how well a company can mitigate the impacts of operational disruptions.
- Attraction and retention of talent – people want to work for something that they believe in and provides purpose to their daily activities. Your resilience program can highlight high performers, identify talent for career progression and can provide people with additional skills that can make them marketable across the industry.



The takeaway – what is obvious is not always simple

As expectations and complexity in the operating environment grow, transparency demands increase. You need to be able to demonstrate to all stakeholders that you have the capability and capacity to address issues as they arise, regardless of threat type.

Having a clearly defined and continuously improving data driven resilience capability, allows you to tell your story on your terms.

The principles of a robust operational resilience program are not difficult to define. The challenge to the modern Executive when investing in their business resilience are the considerations of the consistency of application, being clear in the businesses' needs from a response and storytelling perspective as well as addressing the intangibles along the way.

**For more information contact us at
resilience@dynamiq.com.au**