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Tracking the trends 2022

Redefining mining

Deloitte’s Global Energy, Resources & Industrials specialists provide comprehensive, integrated solutions to all segments of the Oil, Gas & Chemicals, Power & Utilities, Mining & Metals, and Industrial Products & Construction sectors by offering clients deep industry knowledge and a global network.

Introduction

Redefining mining

What will successful mining and metals companies look like in a low-carbon, low-waste, purpose-driven future?

The beauty of this question is that there is no definitive answer. While the core objective of the mining industry remains unchanged going forward: to extract and provide metals and minerals to downstream sectors, many of the factors that have influenced how mining companies should look, feel, and act in the past, have shifted in recent years.

The way in which companies fulfil this mission is now open to interpretation. And today, there is a rare opportunity for leaders to reorganize, generate new value, and forge partnerships to create a more responsible and attractive future for the industry.

While some early movers saw the need for change coming 10, 15, even 20 years ago and have been redefining their organizations and operations accordingly, for many firms, the necessity for fundamental change only really hit home in 2020-21. The convergence of factors including the ongoing effects of the COVID-19 pandemic on the world of work, continued drive towards digitization, the growing need to integrate ESG commitments with central business functions, and the need to pivot in response to fast-moving business and operating environments, has opened many choices for companies.

Of course, the biggest underlying driver and opportunity for transformation lies in the green energy transition. The 2021 United Nations Climate Change Conference (COP26) held in Glasgow in November, highlighted the mining industry's integral role in supplying the metals and materials critical for a low-carbon future[1]. The way in which mining companies position themselves today in preparation for this change, will determine their sustainability, and could make or break their competitive advantage over the next decade.

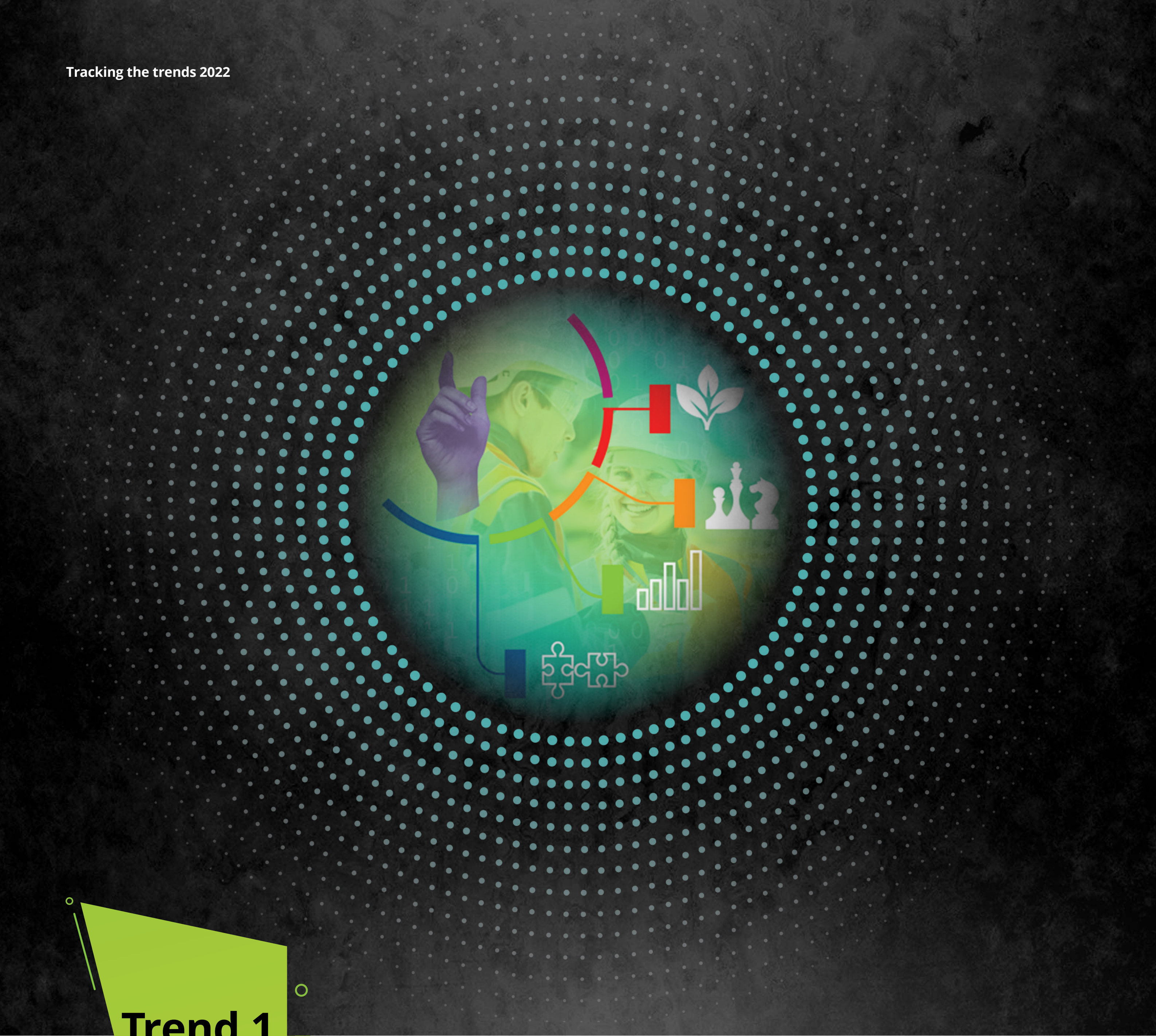
Change on this scale is undoubtably daunting, which is why in this, its 14th year, Tracking the trends has focused on effecting transformation. The following 10 trends provide a toolkit to help mining companies start thinking through, and moving towards, their vision of future success.

In them, our global team of experts share insights and case studies designed to get ideas flowing. We explore how to evolve traditional mining and metals businesses through new business models, capital allocation, agile work practices, and data-driven technologies to create organizations fit for the 21st century; ones that can not only survive but profit from whatever the future might throw at them and leave a positive social impact in their wake.

The next decade will be one of the most exciting and transformative in the mining industry's history. We look forward to discussing the trends with you and supporting your company on its journey. Thank you for your ongoing support.

Endnote:

1. Judith Magyar, "COP26 Takeaways: Renewables Replace Fossil Fuels As Metals Become A Major Force", published 28 November 2021 https://www.forbes.com/sites/sap/2021/11/29/cop26-takeaways-renewables-replace-fossil-fuels-as-metals-become-a-major-force/?sh=948a2f626763, accessed 3 December 2021.



Trend 1

Aligning capital allocation to ESG

Creating an advantaged portfolio with an ESG lens

Andrew Swart, Global Mining & Metals Leader, Deloitte Touche Tohmatsu Limited
Andrew Lane, Energy, Resources & Industrials Leader, Deloitte Africa

The race to cut Scope 1, 2 and 3 emissions in mining has well and truly begun. Over the past five years, several miners have set themselves ambitious decarbonization targets. For them, the challenge now lies in determining the best way to move from intent to reality.

The approach that organizations use to prioritize and operationalize different projects and allocate capital spend across their assets could make or break their competitive advantage over the next decade. Many are, understandably, proceeding with caution.

While the global majors weigh up their next move, the mid-market is playing catch-up. Many mid-market players are only now laying out their net-zero targets and planning the steps these will require both in the short and long term. Their journeys will need to be faster than those of their predecessors in order to keep pace with fast-moving expectations around environmental, social, and governance (ESG) from stakeholders and markets.

While much of the focus today is on climate change and decarbonization, companies will increasingly need to think holistically and ensure their capital-allocation decisions reflect their ESG commitments. Building a portfolio of businesses, initiatives, and projects that are collectively strategically sound, value-creating, resilient, and sustainable will minimize risk in the face of significant future uncertainty and boost the aggregate value of a company's holdings over time.

Use an ESG lens for smart capital allocation

There are numerous frameworks designed to help executive management teams build and sustain an optimal corporate portfolio. The Sustainably Advantaged Portfolio framework[1] is simple, yet effective. Creating an advantaged sustainable portfolio involves a range of initiatives spanning four broad categories of investments detailed in figure 1:

1. Investments that help create a **strategically sound** portfolio that is competitively positioned, has the right balance of innovation, and leverages synergies within the portfolio.
2. Investments that **create value** through maximizing intrinsic value, address any gap with respect to market value, and establish whether the company is in fact the right owner for an asset in the long term.
3. Investments that make the organization more **resilient** by balancing feasibility and risk, building optionality and ensuring the organization's survival through different scenarios.
4. Investments that make the organization more **sustainable** through creating social, environmental, and economic value.

"The aim is to build a portfolio of assets which not only provide a financial return, but consider a broader set of dimensions," says Andrew Swart—Global Mining & Metals Leader, Deloitte Touche Tohmatsu Limited. "The portfolio approach is important, because not all investment opportunities are going to deliver all types of value. Each asset or project will play a different role to create a balance that informs effective capital allocation."

As companies move beyond pure reporting of metrics to making ESG an integral part of their strategies, a key differentiator will be the narrative they build for investors around their portfolio and how they are positioning their assets for the long term. With time, we could see the emergence of different portfolio themes, some of which are explored below.

Figure 1: Sustainable advantaged portfolio attributes

An ideal portfolio evaluation framework will consist of multiple tests that assess the four main qualities of a sustainably advantaged portfolio.

1 Strategically sound

1A. Competitively positioned
Are our businesses competitively positioned in attractive industries?

1B. Balances innovation
Does the portfolio have the appropriate mix of core, adjacent, and transformational innovations?

1C. Creates synergies
Do we have synergies that ensure the value of the portfolio is greater than the sum of the parts?

2 Value creating

2A. Maximizes intrinsic value
Does the portfolio, as a system, maximize the present value of future cash flows?

2B. Addresses market value
Is there a disconnect between intrinsic value and market value that the portfolio must address?

2C. Finds the right owner
Are we the value-maximizing owner of each of the portfolio?

3 Resilient

3A. Survives scenarios
Will the portfolio thrive if the macro environment evolves differently than the expected future?

3B. Builds optionality
Does the portfolio allow the flexibility to change strategic course in response to uncertain short-term events?

3C. Weighs feasibility and risk
Does the portfolio appropriately balance risk and feasibility against the upside potential?

4 Sustainable

4A. Creates social value
Will the portfolio make the social impact that society expects of us?

4B. Creates environmental value
Will the portfolio adequately improve the environment and address climate change?

4C. Creates economic impact
Will the portfolio create economic value to host countries and communities?

Source: Monitor Deloitte Creating a Sustainably Advantaged Portfolio, 2021

Theme 1: The economic decarbonization portfolio

Today, many energy-management related projects have clear economic returns thanks to the advancement of technology, scale effects of production, and investments made in research and development (R&D) by equipment manufacturers and the industry itself.

With energy accounting for approximately 25-30% of direct operating costs,[2] companies could prioritize this lever (primarily focused on Scope 1 and 2 emissions) to enhance their asset competitiveness and free up cash flow. Some firms may also invest small amounts in longer-term innovation initiatives to secure a lower long-term energy footprint.

Through the lens of mergers and acquisitions, companies may prioritize assets in geographies where renewable energy forms a significant portion of the baseload, or alternatively invest in their own renewable power capacity. These will all be key to creating a competitive advantage, as well as driving value creation.

These portfolios and investments will also need to be resilient across a range of commodity and carbon price regimes and regulatory changes. For example, today we see legislation being considered in Mexico that could potentially limit self-generation of power.[3] These types of scenarios would need to be contemplated.

Finally, on the ESG side, companies might prioritize initiatives that address compliance requirements set out by local authorities and metrics that are required by traditional investors.

Theme 2: The value beyond compliance portfolio

Under this theme, some companies may push the boundaries beyond an immediate focus on energy, making investments to rethink greenfield projects and create fully electric mines with a step-change in emissions and performance. Others might look not just at projects which meet traditional return-on-investment (ROI) metrics but perhaps those with lower metrics which help the company toward its wider net-zero commitments.

This portfolio might also contemplate a different asset mix, reducing exposure to commodities that are overweight in carbon emissions on a per-ton basis. It would look at the portfolio through the lens of a potential ESG investor and consider what they might want to include in an index.

Andrew Lane—Energy, Resources & Industrials leader, Deloitte Africa, explains, "Beyond energy, it's likely that some companies will ramp up their community and stakeholder investments. Often, these struggle for equitable assessment through traditional capital-allocation metrics, but some companies are developing methods to quantify these investments, particularly if they help de-risk assets and create deeper buy-in from communities."

These portfolios might also look beyond cost savings and contemplate investments that build greater climate-change resilience. These could include mechanisms to address the impact of drought or flooding in different regions, or those that look at disruption of supply-chain and logistics routes as a result of climate change.

In essence, a portfolio like this would go beyond compliance requirements to create a deeper connection with stakeholders and position the organization for the future.

Theme 3: The disruptive sustainable portfolio

Under this theme, mining companies may take the opportunity to rethink how demand for green and critical minerals could generate a competitive advantage going forward. In this instance, companies could diversify parts of their portfolio to include these commodities, as Australian miner South32 recently did with copper. In October 2021, the company announced that it would spend US$2.05 billion to purchase a 45% stake in the Sierra Gorda mine in northern Chile from Sumitomo Metal Mining Co.[4]

There is also the potential for scrutiny of Scope 3 emissions to disrupt the value chain, generating new alliances, vertical integration, and greater transparency both up and downstream. Examples include the US$10 million investment made by Rio Tinto with China Baowu Steel in December 2020 to establish a Low Carbon Raw Materials Preparation R&D Centre which will develop low-carbon ore preparation processes.[5]

Companies could also increase their focus on the circular economy and opportunities around urban farming to retrieve minerals though recycling. For example, Swedish miner Boliden is also one of Europe's largest recyclers of used lead-acid batteries and electronic waste. The company opened a new SEK750 million (approximately US$83 million) leaching plant at its Rönnskär facility in September 2021 to boost the recovery of lead, copper and zinc from residual material and cut the amount of waste it deposits underground by 80%.[6] Investments such as these reflect a growing belief that traditional mining models might need to evolve in the long term.

Under this theme, companies would focus on evolution of ESG expectations, the potential for non-traditional players to enter the value chain, or the speed at which technologies such as hydrogen, carbon capture and storage (CCS) and robotics might achieve widespread adoption. All of these changes would also need to be examined from the point of view of sustainability, while also evaluating collaborative models, new ways to create social value, and rebuilding trust.

None of these portfolio themes are mutually exclusive, and we have purposefully pulled them apart to create a contrast. In reality, a final portfolio will have a mix of these elements depending on the longer-term vision of organizations and their inherent risk appetite.

The message is that companies need to factor ESG more explicitly into their capital-allocation frameworks and use that to define the contours of their portfolios today and in the future.

Create your own Sustainably Advantaged Portfolio

- **Build a company focused on purpose:** Most mining companies have visions and missions, but very few have looked beyond these to an underlying purpose that resonates with communities, employees and other stakeholders.
- **Consider investor-base evolution:** The recognition of mining as a key part of the energy transition will, in time, bring new investors into the market, particularly for those companies with strong sustainable track records. Think about how that investor base could potentially evolve.
- **Develop plausible scenarios:** When setting a decarbonization strategy, don't fall into the trap of focusing only on immediate returns. An investment that commands a small portion of an overall capital-allocation portfolio today could generate significant dividends 10 years down the line and, therefore, is strategically important today.
- **Think outside of the sustainability box:** ESG or decarbonization decisions can add value to any of the four categories from the Sustainably Advantaged Portfolio framework; they are not purely sustainability investments. Many miners are using them to create new business models, while also driving down their cost curves and mitigating energy risk. Think strategically, and don't limit thinking by only considering historically successful business models.

Endnotes:

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Global contacts

Rajeev Chopra
Global Leader—Energy, Resources & Industrials
Deloitte Touche Tohmatsu Limited
+44 20 7007 2933
rchopra@deloitte.co.uk

Andrew Swart
Global Sector Leader—Global Mining & Metals
Deloitte Touche Tohmatsu Limited
+1 416 813 2335
aswart@deloitte.ca

Regional/Country Mining & Metals Leaders

Africa
Andrew Lane
+27 11 517 4221
alane@deloitte.co.za

Argentina
Alejandro Jaceniuk
+54 11 4320 2700 ext. 4923
ajaceniuk@deloitte.com

Australia
Steven Walsh
+61 8 9365 7097
swalsh@deloitte.com.au

Brazil
Patricia Muricy
+55 21 3981 0490
pmuricy@deloitte.com

Canada
Andrew Swart
+1 416 813 2335
aswart@deloitte.ca

Chile
Dominic Collins
+5 622 729 8089
dcollins@deloitte.com

China
Kevin Bin Xu
+86 10 8520 7147
kxu@deloitte.com.cn

Colombia
Andres Roa
+57 1 426 2008
andresroa@deloitte.com

Ecuador
Jorge Brito
+59 32 381 5100
jorgebrito@deloitte.com

France
Veronique Laurent
+33 1 5561 6109
vlaurent@deloitte.fr

Francophone Africa
Damien Jacquart
+33 1 55 61 64 89
djacquart@deloitte.fr

India
Rakesh Surana
+91 22 6122 8160
rvsurana@deloitte.com

Indonesia
Ali Henry
+62 21 2992 3100
ahery@deloitte.com

Japan
Yuichi Shibata
+81 80 9087 4406
yuishibata@tohmatsu.co.jp

Mexico
Valeria Vazquez
+52.55.50807548; ext 548
vavazquez@deloittemx.com

Peru
Karla Velásquez
+51 1 211 8559
kvelasquez@deloitte.com

Poland
Zbig Majtyka
+48 32 508 0333
zmajtyka@deloittece.com

Russia – CIS
Andrei Shvetsov
+74957870600; ext 5188
ashvetsov@deloitte.ru

Southeast Asia
Jiak See Ng
+65 93 877 958
jsng@deloitte.com

Switzerland
Geoff Pinnock
+41 58 279 6066
gmpinnock@deloitte.ch

Turkey
Elif Dusmez Tek
+90 312 295 47 00
etek@deloitte.com

United Arab Emirates
Bart Cornelissen
+971 4 376 8888
bpcornelissen@deloitte.com

United Kingdom
Roman Webber
+44 20 7007 1806
rwebber@deloitte.co.uk

United States
Amy Chronis
+1 713 982 4315
achronis@deloitte.com

Authors

Trend 1: Aligning capital allocation to ESG

Andrew Swart | Global Mining & Metals Leader, Deloitte Touche Tohmatsu Limited | aswart@deloitte.ca
Andrew Lane | Energy, Resources & Industrials Leader, Deloitte Africa | alane@deloitte.co.za

Trend 2: Reshaping traditional value chains

Andrew Lane | Energy, Resources & Industrials Leader, Deloitte Africa | alane@deloitte.co.za
John O'Brien | Partner, Financial advisory, Deloitte Australia | johnobrien@deloitte.com.au

Trend 3: Operating in the new super-cycle

Roman Webber | Mining & Metals Leader, Deloitte North South Europe: UK | rwebber@deloitte.co.uk
Valeria Vazquez | Mining & Metals Leader, Deloitte Mexico | vavazquez@deloittemx.com

Trend 4: Embedding ESG into organizations

Henry Stoch | Sustainability Leader, Deloitte Canada | hstoch@deloitte.ca
Harsha Desai | Associate Director, Consulting, Deloitte Africa | hardesai@deloitte.co.za

Trend 5: Evolving mining's world of work

Janine Nel | Partner, Consulting, Deloitte Canada | jnel@deloitte.ca
Marcello Cordova Alvestegui | Director, Consulting, Deloitte Chile | macordova@DELOITTE.com

Trend 6: Establishing a new paradigm for Indigenous relations

Professor Deen Sanders OAM | Lead Partner, Integrity, Deloitte Australia | deensanders@deloitte.com.au
Joe Hedger | Partner, Indigenous Services Group, Deloitte Australia | jhedger@deloitte.com.au
Jason Rasevych | Partner, National Indigenous Services Leader, Deloitte Canada | jrasevych@deloitte.ca

Trend 7: Continuing the journey toward innovation-led organizations

Steven Walsh | Mining & Metals Leader, Deloitte Australia | swalsh@deloitte.com.au
Roland Labuhn | Partner, Consulting, Deloitte Canada | rlabuhn@deloitte.ca

Trend 8: Unlocking value through integrated operations

Eamonn Treacy | Director, Consulting, Deloitte Canada | etreacy@deloitte.ca
Dominic Collins | Energy, Resources & Industrials Leader, Deloitte Chile | dcollins@deloitte.com

Trend 9: Closing the IT-OT vulnerability gap

René Waslo | Global Risk Advisory Leader, Energy, Resources & Industrials, Deloitte US | rwaslo@deloitte.com
Andrew Kwong | Partner, Risk Advisory, Deloitte Canada | akwong@deloitte.ca

Trend 10: Preparing operations for climate change

John O'Brien | Partner, Financial Advisory, Deloitte Australia | johnobrien@deloitte.com.au
Patricia Muricy | Mining & Metals Leader, Deloitte Brazil | pmuricy@deloitte.com