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.
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.
Introduction

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 14\(^\text{th}\) 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 21\(^\text{st}\) 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:

Aligning capital allocation to ESG

Creating an advantaged portfolio with an ESG lens

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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 is simple, yet effective. Creating an advanced 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.
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, 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. 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.”

Source: Monitor Deloitte Creating a Sustainably Advantaged Portfolio, 2021
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 through 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.
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