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Tracking the trends 2023
The indispensable role of
mining and metals

Introduction

The indispensable role of mining and metals

The world is at a critical point in time, socially, environmentally, and economically. The latest projections by the United Nations suggest that the global population could hit 8.5 billion in 2030 and 9.7 billion in 2050.¹ With a growing population comes a growing demand for the metals and minerals that underpin societal progress. From civil infrastructure to transportation, and technology to agriculture, the products that the mining and metals sector produces, support and enable virtually every sector globally.

The paradox is that, while the need for mined products has never been greater, public opposition to mining activities has never been higher. The green energy transition is expected to be a mineral-intensive one—the International Energy Agency estimates that the demand for minerals used for electric vehicles and battery storage will grow tenfold by 2040.² Yet, at the same time, approvals for projects that could become important providers of critical minerals, such as lithium (see Rio Tinto's Jadar project in Serbia³), are being hampered due to protests. The juxtaposition between need and want is stark, and the gulf between them creates a very real threat to global climate change mitigation.

For too long, the stories told about the mining and metals industry have centered on the negatives. However, the opportunities

that mining and metals companies can offer to provide for and enhance the prospects of the population, as well as the environments they reside in, are vast. Mining underpins approximately half of the global economy⁴ and therefore, it has the greatest potential of any industry to positively influence social, environmental and economic development.

This year, Deloitte Global's Tracking the trends 2023 focuses on the indispensable value that mining and metals companies can deliver, with the emphasis on taking action now for a better tomorrow. In each of these 10 trends, our network of Mining & Metals sector professionals globally offer up expertise, insights, and examples to spark conversations about how mining and metals organizations can make a difference in the world.

Changing perceptions of the industry by putting people and natural capital front and center in strategies; designing organizations and products for circularity; creating safer, more respectful places of work; and innovating together to make the possibility of ultra-efficient mines a reality will be key to creating a healthy, regenerative ecosystem inclusive of people, planet and industry.

We're excited to discuss these trends with you and explore how they will shape your company's future. Thank you for your ongoing support.

Endnotes

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Trend 7

Rethinking external talent pathways

Solving complex workforce challenges through collaborative solutioning

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Like many other global industries, mining and metals continues to see unprecedented changes that are impacting its workforce and ways of working. Among the prevailing challenges, companies are scrambling to navigate a fast-evolving labor market amid a global shift toward purposeful employment. This is compounded by efforts to rebrand the industry in line with responsible sourcing and the energy transition.

Janine Nel, partner, Consulting, Deloitte Canada, explains: “We’ve been hearing a lot of commonalities in the mining and metals industry’s people challenges. Across continents and countries, we see leadership teams working to balance labor shortages with booming demands. There are also requirements to attract and retain the appropriate talent and skills, source diversity of talent, bring forth diversity, equity and inclusion in the workplace, and shape and embed sustainability into organizational DNA.”

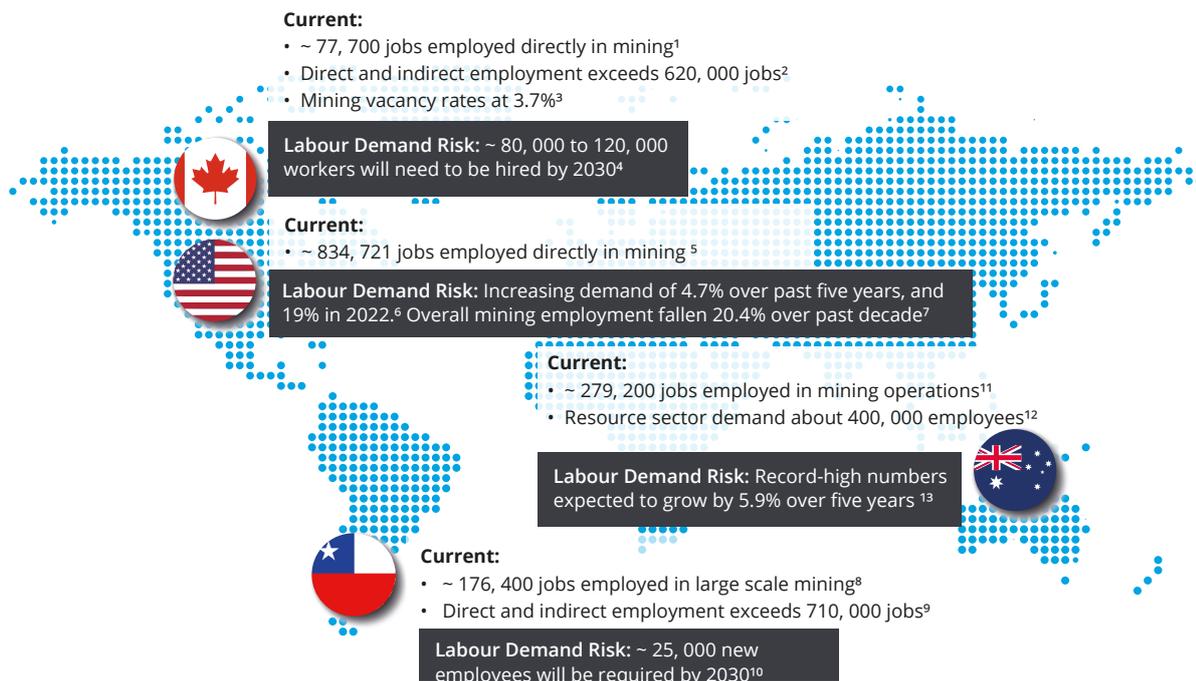
By effectively charting a course through these concerns and better reflecting the value of people within their corporate strategies, organizations can secure a future-ready pipeline of talent, provide exciting new paths for career development, and create truly diverse, equitable, and inclusive workforces.

In short, the industry’s future, and its prospects as an employer, will be brighter than ever.

Circumventing the skills shortage

Figure 1 illustrates the magnitude of today’s labor shortages across key mining and metals markets. Job vacancies are exacerbated by many factors. First, there has been a worldwide rush for minerals as countries work to pivot away from fossil fuels and toward decarbonization. Simultaneously, the mining and metals workforce is aging, and the looming retirement of experienced employees combined with low recruitment numbers from younger generations means there is a danger of critical knowledge and skills being lost. Today, many mine workers are at least age 46, and nearly 50% of skilled engineers are reaching retirement age in the next decade. As the nature of jobs evolve, so does the skills needed to perform them. According to the World Economic Forum, industries are facing a reskilling emergency globally as more than 1 billion jobs are likely to be reshaped by technology over the course of the next decade.¹

Figure 1 : Map showing extent of skills shortage in key mining markets



Source: Included in endnotes

To tackle this, leaders are exploring ways to balance and strategize between sourcing for new talent and upskilling and reskilling the existing workforce. In doing this, it's important to focus on the soft skills of today, while also preparing for the unknown technical skills of tomorrow. Companies will also need to improve workforce planning and update their operating models to respond to new roles, teams and priorities, including preparation for and acting on the energy transition and sustainability goals.

The COVID-19 pandemic accelerated the shift away from siloed ways of working in mining and metals toward more integrated and intelligent operations. This is increasing the industry's adoption of digital technologies, including artificial intelligence and analytics. In particular, the use of remote operations centers or "nerve centers" is creating new roles, such as nerve center orchestrators and data scientists, integrated master schedulers, and team performance scientists. Many of these roles have similar counterparts in other industries; for instance, emergency response coordinators, who could find exciting opportunities in the future of mining and metals.⁶

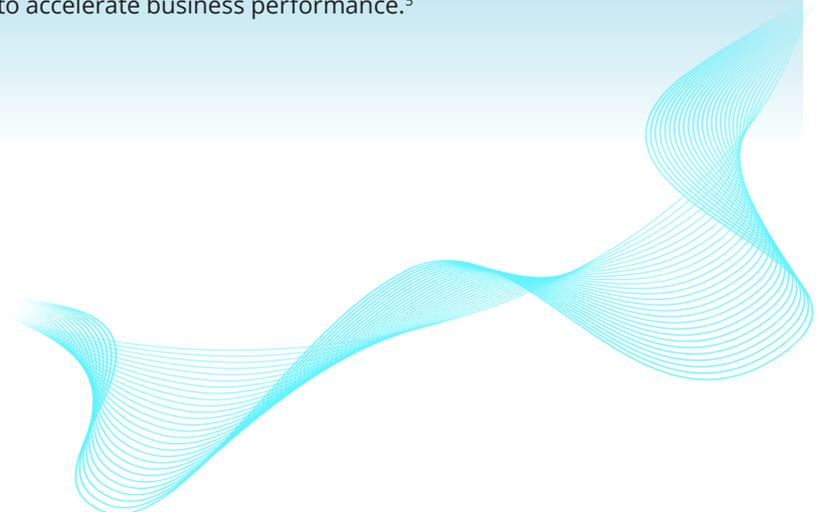
The positive power of mining and metals

In the recently published report, *The skills-based organization: A new operating model for work and the workforce*,³ Deloitte US hypothesizes that the most fundamental building block of work—the job—could be hampering many organizations. Instead, skills-based models could be useful in meeting changing demands and business priorities.

By decoupling some work from the job—either by dividing it into projects or tasks or broadening it to focus on problems to be addressed, outcomes to be achieved, or values to be created—people can be freed from being defined by their jobs.

There are examples from other industries that mining and metals organizations could look to for inspiration. For instance, at Unilever, an internal talent marketplace enables skills to move fluidly to different projects and tasks across the organization, either as a permanent employee or as a "U-Worker"—that is, a worker who has a guaranteed minimum retainer along with a core set of benefits, and who contracts with Unilever for a series of short-term projects.⁴

By breaking down department silos and taking a more granular view of employees' contributions focused on outputs and skills, rather than on years of experience with a job title, recruitment becomes more targeted and internal mobility of talent improves, allowing the appropriate talent to be applied to the appropriate tasks and projects to accelerate business performance.⁵



From upskilling to DEI

Improving diversity, equity, and inclusion (DEI) and gender parity within the workforce are also high on the labor issue agenda, as are reducing discrimination and underrepresentation of groups, such as Indigenous people, in the workplace.

To hire diverse talent, companies should diversify their recruitment efforts. This means moving beyond fitting someone into a job description to hiring based on skills and potential. For example, rather than looking to traditional engineering campus hires or experienced mining and metals hires, going forward, organizations could look at hiring the same or similar skill sets from other programs or industries. This shift broadens the talent pool and brings talent with diverse experiences, skills and capabilities.

The nature of these challenges requires mining and metals organizations and their leadership teams to be vulnerable. This means acknowledging that this is not a single-organization challenge but one that requires an industry-wide solution and collaboration against the backdrop of a complex stakeholder environment.

Bringing together multiple stakeholders across various parts of the mining and metals ecosystem, from

governance, to regulators, to educational entities and private bodies, will help shape a multifaceted solution to talent sourcing, one which will have long-term, sustainable impacts for both the existing and future workforce.

One example is to build training facilities in local communities to foster specific skills and capabilities that can drive education and employment in local communities, improve diversity of talent, and contribute to societal gains. In another instance, the coming together of private bodies and leading thinkers in government and academia as a consortium focused on one vision—such as accelerating improvements in environmental performance—leads to collaborative action and innovation on a broader scale for the whole sector and drives accountability.

Revisiting talent pathways with a fresh lens

As the mining and metals industry flexes and shifts toward collaborative solutioning, companies could focus their efforts on revisiting external talent pathways with a focus on DEI and sustainability. Deloitte Canada’s External talent pathway model allows organizations to holistically consider their existing talent pathways and associated factors to access future-ready and diverse talent (figure 2).

Figure 2. Deloitte Canada’s External talent pathway model



Source: Deloitte Canada analysis

In each part of the model, there are opportunities to assess the current state of the industry and organization, to develop an alternative plan of action, and to execute for a successful outcome. This process begins internally by assessing which roles and skills need to be built, bought, or borrowed to align to the strategic direction of the organization. Companies can then look externally at targeted improvement opportunities. The following are examples of improvement areas across the talent pathways.

Attraction: Improving talent attraction could result in a rebrand of an organization and a refreshed communication strategy which more loudly disseminates the employee value proposition to targeted labor audiences. Social media platforms can play a central role in attracting younger generations.

Community: Improving community perception requires organizations to look at surrounding communities and determine which drivers and inhibitors are impacting the supply and demand of local talent.

Sourcing: Optimized sourcing strategies go beyond skills and target the human level through personification and needs evaluations. There should be numerous sourcing channels which can access various pools of unique talent, and which look beyond mining to other industries with adjacent skills and capabilities.

Partnerships: Improving on partnerships, means looking beyond traditional partners / stakeholders and considering the broader ecosystem to identify potential new partners. Whether looking at recruitment firms, training centres, universities, etc., companies need to look to build deep relational partnerships that are not superficial to drive impact.

Recruitment: High performing recruitment ensures that all previous pathways are aligned, and that candidates who make it to screening and interviews are justly and fairly evaluated. The evaluation process must be candidate-centric not recruiter-centric, efficient yet effective, and automated but high touch.

Once this assessment is done, companies can move into strategic and long-term workforce planning and ensure that there is a continuous feedback loop to the first pathway. This way of thinking serves to support the future of the industry and workforce and proactively addresses many of the emerging people problems that mining companies are encountering.

Look for the art of the possible

People are the most valuable assets that mining organizations have, and their importance should be reflected through enhanced and sustained investments to get the right people in the right place, at the right time and with the right skills and capabilities. Efforts must be made to invest for today, while proactively investing for tomorrow.

How to rethink the organization's talent pathways

- **Tell the appropriate stories:** Changing perceptions of the mining industry by using its role as a catalyst for sustainable social, environmental, and economic growth will likely be central to attracting new talent and creating an environment that retains people in the workplace. Companies should actively seek out opportunities to engage with younger generations through multiple channels, and connections should be made early and often.

From community outreach initiatives to job fairs at universities, mine tours for children, etc., there are many ways to create interest in the sector. For instance, video game company Minecraft has partnered with the Mineral Council of Australia, University of Queensland, and Mining Education Australia to bring gaming into classrooms and make mining a part of school curriculums.⁷ The industry's purpose must be central to communications and efforts.

- **Build ESG on the ground:** Focus on developing quality, two-way relationships, with local communities. A collaborative approach to social development allows mining organizations to demonstrate respect and follow through on their ethical promises while building a positive reputation among local talent. It also creates opportunities to better understand the existing skills and capabilities base, and the future needs of the local workforce.
- **Community-led ESG efforts:** Local and Indigenous communities often have a better understanding of the land and environmental requirements than mining and metals companies and, with the appropriate training, can support or even lead company's ESG efforts. These types of community collaborations create experiences that can be reflective of the industry's sustainability values, serve the environment, and answer the need for diverse talent and social contributions.
- **Source talent from home and abroad:** Companies must find a balance between building skills within local communities, outsourcing or borrowing skills and jobs internationally, and bringing exited talent back into the sector through incentives. These approaches are necessary to successfully execute on future work. To do this, companies should leverage automation, digitization and the possibilities of virtual and remote work.
- **Get creative:** Moreover, as the shift toward the energy transition intensifies, new jobs with new skills and capabilities will be needed. To respond to this, mining and metals companies should find more creative ways to source such talent. Recruitment tactics must be supported by an employee value proposition that resonates with younger generations. This means that both purpose and social and ethical values must be at the center of the mining work and job narrative.

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