

# Automation and mining's talent exodus

The mining industry has been hard-hit by the baby boomer retirement wave



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Recruitment has been a tricky path for the extractives sector for some time now, and transitions within the mining industry are making it even more necessary for companies to reach out to highly skilled candidates.

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As more companies embrace new technologies - ranging from remote operations to automated processes to working with robotics and artificial intelligence - the desired profile of workers has changed.

The industry is also facing the continued wave of resignations of its older staff, making the number of vacancies jump across the board.

### **Retirement wave increasing vacancies**

The mining industry has been hard-hit by the baby boomer retirement wave for some time now, Executive Director for Mining Industry Human Resources Council Ryan Montpellier told *Mining Magazine*.

"We are seeing an exodus of workers, and this is at the same time when the industry has added about 10,000 new positions since 2020," Montpellier said.

"The current vacancy rate in the Canadian mining industry, or the number of vacancies as a percentage of total employment, is around 7,000," Montpellier said.

Many staff have also left the industry, Accenture's Gaston Carrion told *Mining*

*Magazine*.

"Job vacancies in the Australian market are the highest we've seen for years, and are getting closer to the numbers recorded in 2010," he said.

"These are workers who might have moved to other industries for a variety of reasons - such as more attractive job opportunities or early retirements."

Mining companies will need to find ways to re-engage some of these workers now that the vacancy rates are so high.

"These workers often have great industry expertise that is needed to support the adoption of new technology, potential expansions, and other strategies such as those related to ESG," Carrion said.

Demand for mining workers is increasing due to a variety of factors, Montpellier said.

"We don't see demand slowing down anytime soon, with all the announcements on the need for critical and battery-related minerals, the number of mines currently in the pipeline, and investment in base metals, precious metals,

uranium, potash - commodities are trading at significantly high levels, so the demand for workers is increasing."

### **Talent pipeline for young workers is shrinking**

The talent pipeline for the mining industry is shrinking, MiHR's Montpellier said.

Enrolment in Canadian mining engineering programmes have declined by 40% from 2015 to 2020, from 1400 students enrolled in these programmes in 2015 to 830 students enrolled in 2020, he said.

"These are the people that the industry will need" going forward, he said, adding that mining engineering programmes are not the only mining-related academic disciplines to be declining in size. Enrolment in geological sciences and metallurgy have also declined in the last five years, he said.

"What we're seeing is that the talent pipeline is not there, and it's a cause for concern," he added.

The profile of in-demand workers for mining has changed as mining has embraced more technologies, Montpellier said.

"Because companies are adopting new technologies, it's requiring a different skill set, with much higher levels of education," he said.

"We've seen that trend already happening over the last 20 years, from 2000 to 2020, with the number of workers in mining with bachelor degrees up by three-fold," he said.

The industry will now find itself competing with other sectors to attract top-notch talent, he added.

"It's no longer just a question about hiring and competing against other mining companies, but competing against IT companies and data science companies, and trying to recruit individuals who wouldn't necessarily see themselves in our sector."

Mining companies will need to create an attractive career path and value proposition to entice highly skilled workers to join, he said.

Some companies in the sector have been ahead of the curve in anticipating this switch, while others lag behind, Montpellier said.

"Some have been much more progressive on this and others have not, but as these companies renew their fleets, build new mines, modernise existing mines," he added.

## **New approaches required to attract high-skilled workers**

Traditional HR approaches to recruiting for mining jobs need to be replaced with new methods, Accenture's Carrion said.

"Mining companies need to do three things: access a more diverse pool of applicants; reduce technical requirements while supporting the skilling for new jobs; and accelerate their speed in making competitive-pay job offers," Carrion said.

Reaching out to students at high schools and universities is critical to ensure a steady pipeline of mining workers, he said.

Mining companies in Australia "have connected their recruitment campaigns to include more statements about the purpose of their organisations and their role in ESG activities, which improves their narrative for attracting new and diverse talent," Carrion said.

The industry's reputation as a "dirty" industry still presents a challenge for recruiters to mining, MiHR's Montpellier said.

"We've done polling with youth about career perceptions," he said. "It's not surprising that mining is not ranked very high in terms of career desirability.

MiHR has implemented several programmes, including the National Youth Mining Career Awareness Strategy to encourage interest in a mining career path by sending ambassadors to schools. "These ambassadors try to dispel some of those myths" which still exist around mining, Montpellier said.

### **Mining companies need to get 'ahead of the curve'**

As the mining industry adopts more digital technologies, it is more important than ever to embed commitment to technological innovation into the core of the business, Jameel Ahamed, a partner at KPMG Management Consulting, told *Mining Magazine*.

"You need to make sure that it's embedded within your fabric," Ahamed said. "Some larger companies with deeper pockets have been able to get ahead of the curve, and make it a part of their core business strategy."

Smaller businesses with less cash can also centre innovation into their company culture and culture, Ahamed said.

Improving company technological skills can be done both by recruiting external candidates, to rethinking internal structures.

"It's about educating internally," he said, suggesting that mining companies be more proactive in encouraging more experienced workers to connect with newer, more technologically savvy recruits.

This will empower more experienced workers with real-time data, analytics, and tools to create safer, more efficient, and more sustainable operations, Ahamed said.

The industry also should be prepared to present potential recruits with a clear picture of career development in the industry, particularly for those outside of traditional mining studies.

"If you're recruiting someone in the computer science field, they will be wondering what their career path will look like in the mining sector," Ahamed said.

"Mining companies will need to think of the newer demographics coming into the workforce, who want to live in urban areas and expect a certain lifestyle. Companies need to create a career path and model that provides for that lifestyle but also shows what that progression looks like over time," he said.

Some larger mining companies are implementing rotational mobility programmes to inform recruits and existing workers about different career pathways, Ahamed said.

"Organisations need to start thinking about how do we create that all-rounded experience," to maximise workers' skills with company needs, he said.



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