



Future-proofing the industry

Changing winds in mining – from the COVID-19 pandemic and other challenges – are placing the industry at a crossroads. *Mining Magazine's* Donna Schmidt looks at how one company is preparing for the future and what it believes will be driving the changes that lie ahead.

Above: Jon Treen of Stantec says continued and increased collaboration is the biggest opportunity for the mining industry

A viral social media photo from earlier this year read, “The question from 2015 none of us have gotten right: where do you see yourself five years from today?” Looking at all of 2020 thus far, this seems to be an enormous understatement.

However, the changes that mining has seen recently are not all tied to the pandemic – rather that the spread of the virus has exacerbated pre-existing obstacles. Market chopiness, restricted inflow of capital especially for exploration, steadily declining ore grades, transport and logistical hiccups and other issues have all been highlighted.

While all this seems too much to solve quickly, mining has been a resilient industry and is generally adept at identifying opportunities that secure its future. This time is probably no different, so what can mining do to ensure it remains integral to the global economy?

Is what the industry is going through comparable with other lows, have similar challenges been dealt with before? Or will those challenges, and the opportunities that may be identified, be all new?

Mining Magazine spoke with representatives from Canada-headquartered global engineering firm Stantec, which is faring well despite changing tides. How do they “future-proof” themselves and their business?

THE CROSSROADS

According to Jon Treen and Andrew Watson, senior vice president and vice president, respectively, of Stantec’s mining division, and marketing and business development manager of the business, Resa Furey, any challenges have to be met first by coming together as a unit and taking on together what may lie ahead.

“In this time of uncertainty during the Covid-19 pandemic, our future-proofing is focused on the health, safety and mental wellbeing of our staff,” Treen says, adding that (at press time) staff had been working from home for five months with a minimal impact on Stantec’s clients.

He acknowledges, though, that the life- and workstyle adjustments staff worldwide have had to make due to the requirement of social distancing have definitely started to take a toll on everyone in the company and its clients. Because of that, engagement both within its teams and with its client base has been a staunch focus for Stantec’s operations.

For the long term, Stantec’s proofing involves looking at client and industry needs to see how it can best assist from a technical perspective, Treen says.

Watson concurred, noting that the new focus will make Stantec better

overall. “We are reconciled to setting ourselves up for a new ‘normal,’” he says.

“We believe there are some lessons about who we are and how we are wired as individuals, and how we can accommodate each other to be productive. This is not just about us – we’re all people and we’re all adapting to how we best interact with our clients, vendors, colleagues and professional contemporaries, with our neighbors.”

Furey says the most important lesson the business has learned in the last half-year is just how dependent everyone is on technology.

“To future-proof for the long term, we need to carefully consider our dependence on technology to manage the risks and potential downsides of this dependence,” she points out. “Across mining, and industry in general, we need to up our game to have meaningful contingency plans.”

Furey believes that more than ever, the industry needs to understand and plan for high impact risks and ‘black swans’ – the kind of rare event that has severe consequences and which is difficult to predict but

which in hindsight many people believe was inevitable.

The question then can naturally turn to what technologies and processes, as well as projects have been impacted by these changes in outlook across mining. Treen says that, for projects, the uncertainty that still lies ahead and timing of a meaningful recovery has left many market participants guessing.

“In the long term I believe technologies focused on waste, to both minimise and find value for waste, will be critical,” he says.

LOCAL EXPERTISE

Watson adds that some of these projects, when travelling became impossible, were fortunately set up in a way that allowed bringing in local expertise to apply global ideas. It is a method Stantec will certainly apply going forward.

“We will take what we’re living now as a way to effectively collaborate virtually across borders and put local talent on our projects. Virtual collaboration is essential for our health now, but also something we have been meaning to do to meet

our social development and climate change goals,” he says.

A major thread of this *Mining Magazine* issue is what 2025 will look like for mining. Will we as an industry look back on today and this entire year as a watershed event?

“When we look back at 2020, we will notice how it has changed how we operate globally and virtually as a method of execution,” Treen explains. “I believe the biggest change will be the contingency planning that occurs within the world and mining industry with respect to low-likelihood but high-consequence risks.”

Watson added: “Yes, we will see 2020 as a watershed. We’ll wonder why it took such a heavy blow to shift our focus and change our practices.”

Consider the number of workers, he notes, that now work from home, or those which have meetings now online instead of boarding a trans-continental flight for face to-face meetings.

“[We are] deploying technology to get people out of mundane and dangerous jobs that are now automated, so we can put them onto ▶

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According to Stantec's Resa Furey, to future-proof for the long term, the industry needs to carefully consider the dependence on technology to manage the risks and potential downsides of this dependence

more important work only humans can do," he says. "To me, 2020 will be the year that the need for human connection stared us in the face," Furey adds. "We have all known that we are wired for human connection, we all know that we need it, but when we will look back at 2020 we will say that we know it because we experienced firsthand how we lost it temporarily."

Add to that the impact COVID-19 itself will have on that response – never mind everything that has followed or come before it, says Watson: "Face it, we have not invented anything new in the last five months. COVID-19 was just the shock therapy we needed to implement the great ideas that have been around for a while – what we needed to break the inertia."

DRIVING CHANGES

As everyone in the industry finds a footing in the 'new normal' that the pandemic and other factors have introduced, there are major elements that had been driving change in the industry as well as facets of business that will be added.

"The major changes driving mining in the midterm are reduced capital and the different investor models we're seeing," Treen says, noting that it will make it more difficult for operators to get project investment.

"For the new investor, I believe returns will not necessarily need to be larger, but they will need to be quicker and more socially acceptable, not just a financial return but a societal return."

"And that's a good thing," Furey adds. Watson says the pause that was imposed on society has made us all think about what is important, and this could now shift paradigms as well.

"Perhaps we will pay more for the minerals and metals we need, and miners will have money to fund the programs they must invest in if they're to have a healthy community of employees, vendors and consumers of their products," he says. "We have talked about health and safety together for years, and seldom had to really pay attention as a public health situation as a major risk to our operations."

"A healthy mine equals a healthy community, and the link between

mines and the community is now even more evident."

"The changes will impact the speed at which projects are brought into operation and as a result we are likely to see smaller sized mines with higher grades," Treen says. He added that there will still be a place for large projects, but they will likely need to be funded by cash flow from already existing operations.

SUPPLY CHAIN

Watson's position is that COVID-19 disruptions exposed supply chain weaknesses worldwide. Because these chains are normally so efficient, they are often invisible to everyone else, but now the public as a whole has seen the supply chain from the inside out.

"During COVID some mining companies supported their surrounding communities by deploying their supply chain connections to procure and deliver goods, food, medical supplies where other routes had broken down," he says. "We needed each other. Collaboration in time of crisis has to have a lasting effect on the relationship between the parties involved."

"Well, we didn't really have a choice in this [and] this 'sea-change' is a long way from over," Watson says.

"In some cases, [though,] it has freed us all up to adopt the great innovations we have been contem-

plating but have been too timid to deploy. Now that we have had to invest in a different future — there is no going back."

Treen agreed, adding that continued and increased collaboration is

the biggest opportunity for the industry going forward.

"I believe this sharing of information will continue after the virus is under control, which will be great for the industry." ♥

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Mining engineers and workers pre-COVID-19; the sector is currently looking for the 'new normal'



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