

ENTERING THE GOLDEN ERA OF DIGITALIZATION: A GLOBAL MINING COMPANY'S TRANSFORMATION

A Q&A with Barrick Gold's Jordan Lianza

Technology has disrupted just about every industry—including mining, one of human civilization's oldest trades. And few companies have taken better advantage of the opportunities emerging tech affords than Barrick Gold Corporation, the world's largest mining company based in Toronto, Canada.

Among those experiencing the company's digital transformation first-hand is Barrick Gold's Jordan Lianza, the director of the Investment Management team. In a recent Q&A, Jordan sat down with BDO Canada's National Mining Leader Sean Bredin and BDO USA's Global Forensics Washington D.C. Leader Nina Gross—whose teams worked directly with Barrick Gold in its digital transformation efforts—to discuss how data analytics, automation, the internet of things (IoT), and other technologies are changing the meaning of “business as usual.”

BDO: Digital transformation is no small feat. What initially sparked Barrick Gold's desire for digitalization, and what type of preparation was involved?

Jordan [Barrick Gold]: There's no question about it—we're now living in a digital age. The management team at Barrick Gold understood that if it was to maintain its position as an industry leader, it would need to find innovative ways to take advantage of all the emerging technologies that have rapidly evolved in

recent years. To begin our journey to digitalization, we hired both a Chief Innovation Officer and a Chief Digital Officer to oversee the company's digital transformation. In addition, we partnered with several technology and consulting companies, including Cisco and BDO.

For Barrick's Investment Management team specifically, we wanted to use data analytics and other innovations to increase transparency of investment data, improve our decision-making process, and maximize the value of our investment portfolio. It was frustration in data consistency and clarity that prompted us to openly and quickly embrace the capabilities that new technologies afforded us. There was no “one source of truth” before we implemented our current reporting dashboards, so we often ended up doing more data gathering than analysis. We have some of the most brilliant minds in the business, but the time it took us to gather the right information hindered us from completing the work we wanted to do. We knew that if we

wanted to remain an industry pioneer, we had to find a solution—and fast.

BDO: What are some of the digital initiatives Barrick Gold has done to date?

Jordan: For Barrick's Investment Management team specifically, we've begun to digitalize our internal business operations. In response to our frustration, BDO helped us design and implement several reporting dashboards using tools like SQL and Microsoft PowerBI, which directly connect to our existing systems and help us visualize our data. These dashboards include Capital and Investment Analysis Workflow, Project Pipeline Analytics, Evaluations Analytics, and Marketplace Comparisons for the gold industry. These dashboards make up an investment-wide analytics hub that helps us benchmark our internal and external investment projects from both a financial and operational perspective.

We are in the early stages of their release, but we're hoping that once the dashboards are implemented, they will help us achieve greater efficiency, speed, and transparency in our tracking, reporting, and analysis. We hope they will contribute to an overall improvement in investment decision-making and provide value for the company moving forward.

BDO: What are the biggest challenges and risks the company has faced in its digital transformation journey thus far?

Jordan: Digital transformation doesn't come overnight, and companies must be prepared to face many challenges and risks. They must realize that every approach has its gaps and be careful to not over-rely on technology to solve every problem.

One big challenge we faced initially was making sure everything was functional on the operational side. We had to ensure that any technology we implemented would integrate well with our other systems—a problem we've had in the past with some of our other technology efforts. Thus, our first step on the investments side was to ensure any desired solution had the underlying technology and management systems to enable connectivity to our other systems.

Once the technological foundation was in place, there was a lot of education, training, and “buy-in” involved to get users of the platform up to speed with how to use the new system. We produced overview videos, held introductory meetings, and distributed instructional toolkits to assist users using the system. Throughout this whole process, it was critical that we continually sought, responded to, and incorporated users' feedback, which was integral to the project's success and adoption.

Finally, there are the usual risks that come with technological adoption and increased data transparency, including information governance and compliance concerns. Poor quality and extensive volumes of data can severely hamper decision-making and strain existing infrastructure if it's not equipped to handle vast amounts of data. Protecting network vulnerabilities from cyberattacks and guarding data privacy continue to be top of mind.

BDO: What do you hope to accomplish next in your digital transformation journey?

Jordan: We are considering several next steps in terms of technology enhancements. More specifically, the Investment Management department wants to expand its current reporting dashboards to include project details for every mining site, as well as brownfield and greenfield exploration opportunities, in the year ahead. The idea is that this additional visibility will help employees get a clearer picture of all the projects across the company, as well as understand how their projects rank against others. This, we hope, will empower them to make decisions that will benefit the entire company versus just their local site.

Overall, we try to keep our approach to digitalization agile and iterative. Unlike many IT projects, which are often milestone-driven, we monitor our projects on a one- to two- month basis and adjust them according to our stakeholders' feedback. We strongly believe in getting our stakeholders involved in the transformation process as early as possible and getting buy-in upfront. Our digitalization efforts have been very well-adopted thus far, and we're excited to expand them to other departments in the coming year.

ABOUT JORDAN LIANZA

Jordan Lianza, director at Barrick Gold's Investment Management division, helps provide analytical support and analysis for all of Barrick's internal projects, external opportunities, and capital allocation decisions. Before joining Barrick, he worked at Waterton Global Resource Management, a mining private equity fund that raised \$1.7 billion in capital for investing in the mining space.

ABOUT SEAN BREDIN AND NINA GROSS



Sean Bredin, national mining leader of BDO Canada, has nearly 20 years of experience helping clients accomplish their business goals through the development and implementation of innovative solutions. His areas of expertise span several industries, including Oil & Gas, Engineering and Construction, Metals & Mining, Oil & Gas, Power & Utilities, Retail Energy Providers. Sean has worked with some of the highest profile companies in the world; many of which have won Microsoft Impact Awards for their adoption of Dynamics CRM, SharePoint, Biztalk, and SQL/Business Intelligence. You can reach Sean at sbredin@bdo.ca.



Nina Gross, leader of BDO's Global Forensics practice in Washington, D.C., has 30 years of forensic accounting, investigation and consulting experience working with multinational organizations and their counsel. Nina has significant experience assisting clients in responding to sensitive investigative matters, as well as advising organizations on compliance, due diligence, and anti-corruption programs designed to deter and prevent the recurrence of fraud. You can reach Nina at ngross@bdo.com.

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