

Ukwazi Mining: 20 years of excellence

Jaco Lotheringen, the Principal Mining Engineer and Founder of Ukwazi Mining, takes us on a journey of two decades at the helm of Ukwazi Mining, where we discover that success requires resilience, the right people, and an eagerness to learn and adapt

Ukwazi Mining's five pillars of commitment

Safety: Underpinned by strict adherence to global safety standards and best practice risk mitigation.

Transparency: Transparent engagement and reporting as well as regulatory compliance.

Innovation: Developing innovative technology that leverages technical excellence and experience in mining.

Productivity: Enhanced profitability and cost-effective engineering solutions

Development: Driving skills development and job creation and providing local, on-the ground sector experts.

UKWAZI
we do mining

Ukwazi Mining is a multi-disciplinary, one-stop advisory firm and niched mining operations service provider to mining clients situated within the Europe, Middle East, and Africa (EMEA) region.

As a mining advisory company, Ukwazi's focus is on developing and delivering integrated mining projects for and alongside their mining clients; which includes providing project management and controls, mining engineering, infrastructure engineering, ESG solutions, bespoke technical studies, public reports, financial valuations, technical onsite support, and project implementation services.

Based on their proven track record and wealth of practical mining production and construction experience, Ukwazi provides niched contract mining and civil works services through Tsebokgadi, their 'Women in Mining' initiative.

In support of this, the entity is the exclusive distributor internationally of the proven and effective K-Tec ADT pull scrapers for sub-Saharan Africa to supply innovative earth moving methods and equipment that saves their clients' money, water, and diesel.

"Every client we work with has access to the same skill sets and expertise available at Ukwazi Mining. In South Africa, we are blessed with some of the best specialists the mining industry has to offer worldwide. But I

think organisational design is critical because it contributes significantly to culture. And culture is key," explains Jaco Lotheringen, the Principal Mining Engineer and Founder of Ukwazi Mining.

"In terms of how we work, our biggest differentiators are related to our organisational design and how its applied to our integrated project management and our Superteams. We strongly believe that the successful delivery of a mining project does not only rely on the individual technical disciplines it comprises, but more on how these disciplines are integrated into a cohesive project solution."

Therefore, Lotheringen believes that integrated project managers have to be technical experts first, before they can effectively lead complex multi-disciplinary mining projects.

This way, Ukwazi's clients always get direct access to technical discipline experts, irrespective of the project complexity, and without having to work their way through the project hierarchy.

"Our Superteams were designed to be more than a small group of people that always work together on projects. Our Superteams consist of permanent members that self-manage and self-measure. It has no hierarchy, only a spokesperson and members with partially overlapping skill sets," Lotheringen continues.

"The roles and responsibilities of each individual changes continuously based on the workload of their Superteam and the technical requirements of the projects at hand. To form large multi-disciplinary project teams, we assemble a collection of several Superteams. Not as an arbitrary collection of individuals organised into a conventional hierarchy as is the case of more traditional project development houses. Based on this, all our clients always get the A-team."

In 2024, Ukwazi Mining celebrates 20 years of excellence since the founding of the company in 2004; a journey which has resulted in huge success, both on a personal level and at an organisational level.

From crocodile-infested rivers to a leading role player

Lotheringen's journey to the founding and sustained success of Ukwazi Mining started in 1997 when he was picking daffodils in Cornwall, England and later became a night shift security



Jaco Lotheringen



guard at an upmarket London retail store just off Oxford Street.

After this, he travelled from France to Jordan and back for almost a year before he was recalled to fulfil his bursary obligations. A month later, Lotheringen was working underground and living in an old exploration house with no cellular or TV reception next to a crocodile-infested river at Exarro's Tshikondeni mine in Limpopo, 140km from the nearest town.

In the 1990s, there was practically only one career path for mining engineers, which was mining production management.

Lotheringen knew this when he started his career, but he was very fortunate to get a great opportunity to sink a decline system to access a new mining block. Doing this, it became clear where he wanted his career to lead to, so he started a campaign to get transferred to the head office projects division. This move took him three years.

After just a few years at the projects division, Lotheringen gained an initial exposure to a range of commodities and mining methods. Then he was appointed at LQS, led by the innovative Pierre Bredell and Pierre Fourie. At the time, LQS was unique in terms of its focus, and it was a wonderful opportunity to gain significant experience and skills.

"The mining technical discipline as we know it today, just did not exist in South Africa at the turn of the century. The specialist mining software that existed at the time was not very elegant and mostly required significant coding and scripting to achieve useful results. Three-dimensional visualisation was mostly questionable," Lotheringen explains.

"At the time, I got the impression that the opportunities for mining engineers at most project development houses were limited to

individualistic roles. It was clear to me that the value of a team of strong, practically experienced mining engineers with expert technical skills, was totally overlooked in South Africa.

"This was what I wanted to change with Ukwazi. I wanted to do my best to create an environment where great mining engineers with exceptional skills can make meaningful contributions in small, focused teams to deliver something they can be proud of. This same principle was applied to all our technical disciplines that we have established over the years."

20 years of Ukwazi Mining

From the very beginning of Ukwazi—which is a Zulu word that means "to know"—Lotheringen wanted to grow organically to preserve culture and build an organisation that works the way he wanted it to.

When it all started in 2004, the focus was on mining engineering for underground mines. In 2006, the entity introduced open pit Superteams, and soon after that they added coal and an agricultural minerals Superteam.

In 2010, Ukwazi's clients wanted them to provide public reporting services. Since then, the entity has prepared numerous public reports for listed and listing companies for the major stock exchanges across the world. A great number of mines and projects secured funding, in part based on the public reports that Ukwazi prepared.

In 2014, Ukwazi's clients in the Northern Cape and Mpumalanga asked for help in establishing on-site technical teams not only to build the mines designed by Ukwazi, but also to be part of the owners' team during ongoing operations. Ukwazi now has world class teams at its offices in Kathu (Northern Cape) and eMalahleni (formerly Witbank, Mpumalanga).

Then, in 2016, Ukwazi started an in-house techno-economic modelling and mine valuations team. They established their engineering infrastructure department in 2019 and sustainable mining and integrated project management and project control teams in 2020.

All these teams now play integral roles in the service offering, which is a one-stop shop for the cohesive project development process for great mining projects.

"At Ukwazi, we recognise that mining is a significant contributor to GDP, economic growth and employment—particularly in South Africa and across the continent. It is also the basis for the sustainability of other critical

sectors such as manufacturing and energy. Our services ensure ongoing industry growth, skills development, and capacity building," Lotheringen says.

"It has been a great privilege to have had the opportunity to build something meaningful from nothing and work with great people. Because we grew organically, we always had new challenges to deal with every few years, so my focus had to change continuously to ensure the success of the latest technical discipline we established." As an advisory group, Ukwazi employs more than 50 permanent engineers, scientists, and technical experts, as well as many more associate staff, all the while enjoying access to a large group of associate companies for specialist services.

A significant portion of their employees have been with Ukwazi for 10 years or more.

"I've had the opportunity to see how people approach the mandate they were given, how they make it their own, and how they adjust to the opportunities that cross their path. I've got to see how they flourish. When I compare where a lot of these people were, and where they are now, it makes me proud," Lotheringen shares.

As the mining industry is cyclical by nature, challenges often arise.

For Lotheringen, the 2008 financial crisis, the 2016 commodity crisis, and the COVID-19 pandemic were most significant.

"I experienced the COVID-19 pandemic as the most difficult to overcome due to the limitations it imposed on personal interaction with your colleagues. We were early adopters in terms of embracing the available digital solutions. Although that served us well, we soon realised that interacting online was new and different in terms of the quality and effectiveness of the interaction compared to face-to-face and

personal relationships. During this time, we had to work much harder to ensure cohesive integration between technical disciplines to deliver the same results," he explains.

"We have gradually increased our in-office time and have set up a great office environment with sufficient and wonderful spaces to allow for highly effective in-person technical sessions and problem-solving workshops.

"As a typical engineer, I like to think deeply about technical and other challenges we encounter and finding refined solutions or processes to get to a preferred or appropriate solution. I have had the privilege to have been exposed to hundreds of diverse projects in the last 25 years, each with their own challenges. This makes it easier to see solutions that most people cannot yet find."

When it comes to the changes Lotheringen would like to see in the mining sector to the benefit of Ukwazi, he admits that there isn't much he would change on the advisory front, apart from the traditional top-down strategic approach to mining project development.

This is the traditional approach where mines are designed solely based on a specific saleable product or the size and type of plant the owner or service provider wants to build.

Lotheringen, however, sees the probability of success for projects that have been approached and developed on an integrated, bottom-up approach to be significantly higher. This way the mining function is seen as a revenue enabler,

Jaco Lotheringen on the importance of employing the right people

"Although bad quality people are the exception, they will cross your path. They consistently choose to not do the right thing.

"Good quality people, unfortunately, also occasionally choose not to do the right thing, but they always want to contribute something meaningful to something that matters. In my experience, good people want to trust and respect those around them, and they want to help others when the environment they operate in allows them to do so.

"Surrounding yourself with good quality people is more important than the specific skills or experience they might have right now. The latter can change and improve."

delivering the most valuable product for an optimal cost profile based on the specific ore body, and not just a cost centre.

"The bottom-up approach to project development dictates that you have to start with the geology and integrate from there to provide the optimal saleable product, in a responsible manner, and at the lowest possible cost profile," he shares.

On the operations side, some mining houses have been known to have an unreasonable resistance to think differently and continue to

company to a trusted and well-known advisory services provider. More recently, I have learned so much from my senior leadership team and rely on, and trust their insight.

"We have always closely collaborated with Trevor Rangasamy and I have a great deal of respect for what he has been able to achieve with Middindi as one of the best geotechnical and rock engineering companies.

"Furthermore, I am lucky to have access to a network of technical experts, high quality people and 'silverbacks' in a wide range of dis-

From the perspective of how we work, our biggest differentiators are related to organisational design which informs our approach to integrated project management and our Superteams

resist investigating new practical applications for proven technologies.

This is something which Lotheringen would like to see change from a mindset perspective.

"Significant upsides exist to improve if mining companies spend enough effort on identifying and physically testing appropriate opportunities. Secondly, too many instances exist where there is an unhealthy relationship between mining contractors and mine owners. This fosters an environment where the outcomes are based on mistrust that negatively affects the culture and performance of both the mine owner and the mining contractor. Where the relationship is less adversarial and seen as a partnership with full disclosure and collaboration, both parties flourish," Lotheringen adds.

Mentality, influence, and the future

Lotheringen has a lot to be thankful for during his excellent career to date, but there are a few people who have left an indelible mark on his career; driving him on to greatness, inspiring him to push beyond the ordinary, and influencing the success of Ukwazi.

"The way I see it, Pierre Bredell and Pierre Fourie must be recognised as the first in South Africa to really see the opportunities that exist for mining engineers," Lotheringen reveals. Later, at Ukwazi, I had the opportunity to work with the highly skilled and hard-working Pieter Botes and Hugo Tukker who played a major role in helping the company grow from a start-up

ciplines. Ongoing engagement and discussions with each of them continues to shape the way I understand and approach the challenges we encounter and allow for me to formulate and ask the right questions. They know who they are."

With success in business comes the dreaded 's'-word—stress.

It is vital that you do not let stress get the better of you, as we have all seen the effects.

So, how does Lotheringen deal with stress?

"Surrounding yourself with great people at work absolutely minimises work stress in the first place. It's so important. Spending quality time with my family and just seeing our kids play together is such a privilege. I really enjoy doing adventurous activities such as rock climbing and biking with my two young sons," he insists.

Looking to the future, Lotheringen is loath to make any big predictions.

Instead, he is simply eager to keep doing what he has been doing with the right people by his side, while at the same time consciously looking at areas of improvement—both personally and for the Ukwazi brand.

"In any organisation there are always opportunities to improve. I would like to focus on this and continue to be in a position where I can add value and surround myself with people that choose to work with me," he concludes.

And we wish you nothing but the best as you take Ukwazi into its third decade of operations. ▲