

Brigadier Stokes Memorial Award Winner—2017

25 years of evolution: a view from the Minerals Council

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he Southern African Institute of Mining and Metallurgy (SAIMM), is synonymous with the industry itself. Although its founding came 27 years after the discovery of diamonds, it was just eight years after the discovery of gold. At the time, South Africa may have earned its reputation as the world's newest mining frontier, but it was still finding its way in terms of how this industry would be governed. The first Johannesburg Exchange was only six years old, and the second Chamber of Mines (the first had floundered and had to be re-established) was still in its infancy.

In 1894, when the SAIMM came into being, the industry had only recently started making use of the cyanide process to solve the problem of recovering gold from pyritic ore. This new technology set gold mining in South Africa on a new trajectory, and the moment was marked in the Institute's Journal, which has recorded major processes and developments in mining in the 125 years since.

Here, we have neither the space nor the scope to examine the past 125 years of mining in South Africa. It is a history too dense, too convoluted and too embroiled in social, economic and political shifts that forever altered the fabric not only of the country, but also of its neighbours whose workers flocked south.

Instead, by looking at the past 25 years since South Africa's transition from apartheid to democracy, we may be able to provide a snapshot of the extent to which the industry, and in particular the Minerals Council South Africa within it, has transformed. The Chamber of Mines' renaming as the Minerals Council in mid-2018 was symbolic of wider, more systemic changes in our approach to accountability, transparency and industry leadership. It is a story we are proud to tell.

Becoming the Minerals Council

Although only officially launched in May 2018, the Chamber of Mines had been evolving into the Minerals Council for several years. We have undergone a period of reflection and introspection for some time, one that has led to a clear acknowledgment of the industry's legacy

issues and a renewed commitment to addressing them proactively and permanently.

The mining industry in South Africa has not been without its flaws. Its implication in hardship and injustice cannot be overlooked, particularly during the apartheid years. In the 25 years since, however, and especially in the years leading up to the establishment of the Minerals Council, we have looked at the past critically, have strived to correct legacies and are endeavouring to make positive, long-lasting changes going forward.

The new Minerals Council has emerged more focused, more strategic, and stands taller in its role as the industry's primary representation and strongest voice. A big component of this role has been the leadership position we have assumed in our dealings with government. Among other things, in the past year, the Minerals Council has engaged extensively with government over a new Mining Charter. Though the new charter was published in September 2018, engagements continue with a view to having amended a couple of remaining problematic areas.

Going forward, the Minerals Council intends to cement its position, and to consistently enable the industry it represents to achieve its real potential for investment, growth, transformation and development. We aim to do this by living up to our values of responsible citizenship, respect, trust, honesty and accountability and by driving a positive reform agenda.

Caring for our people

Since the advent of democracy, the mining industry has made important strides in caring for both the employees and communities on whom it is so wholly dependent. This includes their health and safety, their financial wellbeing, and the implementation of initiatives aimed at equality and inclusivity.

Safety

In 1996, the Mine Health and Safety Act was passed and the Mine Health and Safety Council was formed to direct safety in the mining industry and to respond to safety



The Mineral Council building (rebranded)

challenges. In their formation, the Act and the Council both made use of a tripartite approach, involving industry, unions and government in a move that was fairly radical at the time.

The efforts of industry and its tripartite partners have made a significant impact on the health and wellbeing of employees over the past 25 years. Between 1993 and 2016, the number of fatalities across the industry declined by around 88%, while fatalities as a result of fall-of-ground incidents declined by 92% over the same period. In 2009, the Mining Industry Occupational Safety and Health Learning Hub was established to help companies learn from pockets of excellence and, in 2012, the CEO Zero Harm Forum was founded, which emphasizes the importance of leading by example in all safety-related initiatives.

Although these efforts have been significant and worthwhile, the industry experienced the first regression in its safety performance in 23 years in 2017 and this continued into the first half of 2018. Following major new interventions by the Minerals Council from August 2018, we believe we have seen a reversal of those deteriorating trends. We will continue to focus all of our energy into obtaining the goal of zero harm, and will forever encourage our members to do the same.

Health

The prevention and treatment of HIV/Aids and occupational lung diseases (OLDs) such as tuberculosis (TB) and silicosis have been an abiding priority for the Minerals Council for decades. We are proud of the partnerships we have made to this end. One such partnership, Masoyise iTB, includes the Minerals Council, the departments of Health and Mineral Resources, all four labour unions, UN agencies and the South African Business Coalition on Health and Aids, among others. All of these entities are committed to screening for TB and HIV in South Africa's key populations, including mineworkers.

Recent results have been positive. In 2017, 79.3% of mine employees were screened for HIV and 90% were screened

for TB. The next step is to achieve the target of screening all mineworkers every year for both of these diseases.

Unclaimed benefits

In dealing with past issues, the Minerals Council has also had to look at problems relating to the paying out of pension funds, as well as compensation for OLDs, which were poorly managed in the past. In a relatively short period of time, industry players have rallied together to develop innovative and effective solutions to ensure pensioners and OLD claimants are tracked, and that the payments that are due to them are expedited. This concerted and collective effort has improved the industry's reputation among long-standing claimants, and has demonstrated, in practical and tangible ways, that the Minerals Council is dealing with the issues it promised to address.

Women in mining

In 1996, South Africa denounced a 1935 International Labour Organization convention that prohibited the employment of women in underground mining work. Instead, the industry started to make headway in integrating women into every aspect of mining, including underground positions. Over the course of the last 15 years, the number of women working in the mining sector has increased from around 11 400 in 2002 to over 53 000 in 2017. As a result, women currently represent approximately 13% of the mining industry employment.

The move towards modernisation is expected to increase the opportunities available to women in mining. As mines becomes more mechanised, the need for stamina and physical strength still necessary in deep-level mining will be replaced by the need for fine motor skills, dexterity and problem-solving. Women entering the workforce are ideally suited to fill these positions.

Rethinking mining

Since the beginning of mining in South Africa, the methods

15

SAIMM

used, particularly for the extraction of gold and platinum group metals, have remained largely unchanged. For the most part, stoping – drilling, blasting and cleaning – is still the order of the day. However, as mines deepen and economically viable orebodies extend further and further from shafts, workers are required to travel greater distances and to negotiate ever-narrower reefs and steeper gradients. Safety, health, productivity, production and costs are all negatively affected as a result.

To mine these increasingly low-grade and inaccessible orebodies, new modernised approaches and interventions are necessary. Critically, the envisaged modernisation process involves retraining people currently at the rock face performing arduous, repetitive and potentially risky tasks to operate low-profile, multi-functional machinery remotely or from a safe distance. In time, the industry will be in a position to train an entirely new generation of mineworkers to undertake these tasks, including more women. In this way, modernisation efforts are as much about developing people and enhancing transformation as they are about implementing technological innovations and improving processes.

Without a shift in mining methodology, the industry will fail to mine South Africa's deep-level complex orebodies profitably. This could result in resources being sterilised, the accelerated and premature closure of mines, and job losses. Research suggests that without modernisation, 200 000 jobs could be forfeited by 2025, affecting 2 million people indirectly.

The move towards modernisation and greater innovation is fundamentally people-centred and has economic development at its core. Not only will it help to improve safety and health, but it will also contribute to increased skills development, employment, exports and revenue, all of which will have a knock-on effect on local communities and the country's economy as a whole. Modernisation is a key strategic priority for the Minerals Council and we are in the ongoing process of creating an enabling environment for industry-wide change.

Using our resources to preserve our environment

Implementing initiatives that minimise the impact of mining operations on the environment, and ensuring that rehabilitation efforts subscribe to the highest standards has been, and will continue to be, a priority for the Minerals Council. But as technology evolves, there are ways of using the resources the industry mines for the betterment of the environment around us.

The Minerals Council has gone so far as to bring this technology home. Since 2014, our building in the heart of Johannesburg's central business district has been powered

by a fuel cell that uses just 40 ounces of South African platinum and low-pressure natural gas. This 100 kW fuel cell produces 70% of our electricity through a highly efficient and ultra-clean power-generation system that produces a minimum of harmful emissions.

Through this installation, the Minerals Council not only demonstrated the industrial application of platinum in a significant new market, but emphasised the commercial potential of environmentally responsible mining applications, too.

Holding our members to account

The Minerals Council's efforts to transform the industry are only as strong as the efforts of our members. We need to act as a united group if we are to effect change where it is most needed.

Although the Minerals Council never encroaches on the autonomy of its members, we do require them to subscribe to a Membership Compact as a condition of their membership. The Membership Compact is a mandatory code of ethical business conduct that focuses on building relationships with key stakeholders, transforming the mining industry, and partnering with communities surrounding existing and future mining operations and those in laboursending areas.

Looking ahead

What does the next 25 years hold for the Minerals Council and the mining industry at large? While there are no guarantees, we believe that the changes achieved over the previous quarter-century have equipped us with the resources – if you'll mind the pun – to reposition the South African mining industry as the country's preeminent industrial sector.

A crucial component of our strategy going forward is to reignite the sector through a conducive policy and operating environment, one that fires up exploration and drives new long-term investment into the industry. This will require real partnership between government, organised labour and the industry, as represented by the Minerals Council, as well as ongoing engagement with other long-standing, prestigious and important organisations like the SAIMM.

Together, we believe we can continue to develop a modernised, mechanised, safe and responsible sector that is competitive, attractive to investment and continuously relevant. In everything we do, we will work towards realising the true economic and transformational potential of the mining sector for the benefit of all of South Africa's citizens. **

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