

1. INTRODUCTION

The preamble of the mining charter notes that an assessment undertaken by the Department of Mineral Resources and Energy showed that, while there is **noticeable improvement in the level of compliance** to the Mining Charter, overall **transformation in the mining industry remains unacceptably low**. Thus, it notes that “the spirit of the mining charter was not fully embraced”, with the majority of mining communities living in abject poverty, and meaningful participation by historically disadvantaged persons remains limited.

Given this, the Mining Charter brought to being in 2018 sought to improve the desired outcomes, as a tool for effecting “broad-based and meaningful transformation of the minerals industry.”

- Substantially and meaningfully expand opportunities of historically disadvantaged person to enter the mining and minerals industry
- Utilise and expand the existing skills base for the empowerment of historically disadvantaged persons
- To advance employment and diversify the workforce to achieve competitiveness and productivity of the industry
- To promote sustainable growth and competitiveness of the mining industry
- To enable growth and development of the local mining inputs sector by leveraging the procurement spend of the mining industry:
- To promote beneficiation of South Africa’s minerals commodities

South Africa has been in pursuit of inclusive growth since the dawn of democracy. **Inclusive growth “combines the increased participation of poor and marginalized people in growing economic processes** (via employment) with increased sharing in the benefits of growth (via rising incomes as well as increased benefits from social expenditure, **including human capacity building**)¹

The Original Equipment Manufacturers (OEMs) have a strategic imperative in a growing and inclusive mining sector. Indeed, the OEM Mining Supply Forum (OEM Forum) was formed to make a positive contribution to the achievement of the objectives of the Mining Charter 3. Specifically, the mining charter is committed to moving from a paradigm of “compliance”, to one of collaboration. Specifically, the OEM Forum envisages a role that is based on the spirit of transformation and inclusive growth, rather than box ticking.

The OEMs play a critical role in the mining value chain. As such, there is an opportunity to collaborate with government towards developing a strategy towards growing the mining sector through developing competitiveness and inclusion through their international value chains.

Thus, the OEM Forum sees its collaborative role with government and other social and sector stakeholders to include the following:

- Facilitating technology creation and transfer through design of locally appropriate equipment and technology
- A collaborative strategy and planning for the manufacturing and servicing of equipment to foster growth and localization.
- Developing of specialized skills to support growth and meet the demands of a growing sector.

¹ <https://www.econ3x3.org/article/how-inclusive-economic-growth-south-africa>

- And ultimately growing investment into the sector by international OEMs to support manufacturing in the local sector through scale.

The above pillars of the strategy will place the sector on a firm footing in and well placed for the drivers of the sector which can be expected to be seen in the medium to long term. These drivers include:

- Growth through the “minerals of the future”, as well as the growing demand of growth minerals, including iron ore, manganese and chrome minerals
- Taking advantage of the Africa Free Trade Area to build market and grow localisation through scale of the larger market
- Localisation with a focus on special economic zones, especially in areas such as the Northern Cape
- And a strong focus on supporting junior and emerging miners.

In summary, the OEM Forum sees the possibility of technical development leadership towards new-generation mining, which will present investment opportunities for applications to unlock the country’s mineral resources.

2. THE OEM FORUM WITHIN THE MINING SECTOR

The OEM Forum is comprised mostly of international OEM suppliers to the mining industry, who are multinational companies, with headquarters outside of South Africa. The OEM Forum members collectively generate an estimated annual turnover of R62bn, employ in excess of 17 600 direct employees and support almost 23 400 tier 2 suppliers. The average turnover from South Africa as a percentage of global operations is estimated at about 14% and therefore represents a significant share of their global business. Furthermore, South Africa provides a base and a gate of entry for many companies for business on the African continent. The OEM Forum members are at various stages of local content with different business models and strategies. The average local content of the OEM members is estimated at 30%.

Members of the OEM Forum have invested nationally, in collaboration with their customers in a number of socio-economic projects, over and above the requirements of B-BBEE legislation. These include improving school infrastructure, sports facilities, learner and teacher education programs, agriculture, health care, 'adopting' special needs children at various homes, partnering with NGOs on education through the sponsoring of bursaries for students, funding the maintenance of roads in communities and funding entrepreneurs in the core business of mining. Through partnerships with successful NGOs and collaborations with multiple mining houses in the same regions and districts, the OEM Forum members aim to build a more lasting and sustainable economy for mining communities, beyond mining.

The OEM Forum was established in August 2019 following the requests by several individual OEMs as well as senior DMRE and Dtic personnel for an industry association to represent the collective interests of multinational companies that supply the South African mining industry. The OEM Forum was established to address the challenges posed by the Mining Charter, 2018 with regards to amongst others the local content requirements, exclusions and certification and to develop solutions to these challenges that will benefit the industry, promote local manufacturing, create employment and increase investment in the South African mining industry.

The objectives of the OEM Forum include:

- **Help contribute to policy and regulatory reforms** for the best outcomes of growth of the sector and value creation to members
- **Developing solutions** to the challenges that will benefit the industry, create employment, and enhance investment in the South African mining industry.
- **Engaging with, providing input for and building collaboration** with relevant stakeholders to design and implement solutions to the challenges
- **Participating** in industry stakeholder forums and government stakeholder working groups.
- **Training, advising, and preparing** OEMs in terms of measurement, codification and certification.

MEMBERS OF THE OEM FORUM		
Atlas Copco	Fuchs	Osborn
Barloworld Equipment	Hitachi	Sandvik Mining RSA
Bridgestone	Liebherr	Komatsu Mining Corporation
Contitech/Continental	IMS	
Cummins	Komatsu SA	
Epiroc	Weir Minerals/ESCO	
FLSMIDTH SA	Multotec	

The Forum has engaged constructively with the Minerals Council of South Africa (Minerals Council), the Competition Commission, South African Mineral Processing Equipment Cluster (SAMPEC), CCRED and the South African Bureau of Standards (SABS). The OEM Forum is also a member of the dtic Working Group on Mining Supply Chain Products Traceability Project.

The OEM Forum does not engage in or tolerate anti-competitive behaviour or collusion objectives. No individual's OEM information is disclosed to the group.

Following a workshop held with the Competition Commissioner, a request has been submitted to the Competition Commissioner to issue an advisory opinion regarding the engagement between the OEMs of the Forum.

An industry engagement workshop was held in November 2019 with SAMPEC, DMRE, the dtic, the Axle Manufacturers Association, Recapitalise SA and the Minerals Council.

The Constitution of the OEM Forum has been ratified by the members (It is available for view on the OEM Forum website www.oemforum.co.za).

The Secretariat of the OEM, which is the administrative arm of the OEM Forum, has engaged a number of players in the industry and government. This position paper aims to address what is needed to increase local manufacturing, grow and empower the local supply chain and to create jobs.

2.1 OEM INDUSTRY OVERVIEW

(This Industry Overview draws heavily on the work done by CCRED for the mining machinery and equipment masterplan prepared for the dtic.)

South Africa faces the challenge of developing and expanding its capabilities to design, manufacture and service products of increasingly greater complexity and value.

Aside from the need to coordinate increasingly large investments in specialised skills, technology and plant, the movement up the value chain requires a process of learning how to optimally use technology.

Mining machinery and equipment stands out as the largest contributor towards employment as well as output and exports in the machinery and equipment sector. In 2017, mining machinery and equipment accounted for 67.11% of employment, 74.68% of sales and 78.87% of exports of the overall specialised machinery and equipment sector (Torreggiani and Andreoni, 2019a)².

This sub-sector also contributes the lion's share of the specialised machinery and equipment sector's capabilities as proxied by fixed capital investments (70%), R&D investments (93%), royalties payments (77%) and investments in training (88%) in 2017 (Torreggiani and Andreoni, 2019).

The mining machinery and equipment sector has significant linkages into the economy. The OEMs supplying equipment to the mining industry have important backward linkages to modular and major assembly suppliers, sub-assembly and parts suppliers, specialist component suppliers and raw material suppliers. As a result of the linkages with other parts of

² SAIMM New Technology Conference, June 2019: A mine of technology opportunities: performances, global threats and ways forward in the South African mining equipment industry

the economy, it has been estimated that a 55% increase in output would result in a 46% increase in employment by the sector (CCRED, 2019)³.

OEMs are responsible for the overarching design and manufacture of a product.

It is important to distinguish between global OEMs (which are both technology leaders in their sectors as well as providers of rigorous leadership, standard setting and developmental support for their supply chains) and more local and niched OEMs (which tailor existing components that are available on the market to produce a product for a niche market segment.)³

Global OEMs are important potential partners in providing technology transfers and associated support to move South African companies up the value chain, whilst it is important to support the latter national companies to build their capabilities so that they can become exporters and create a stable demand for the national component manufacturing industry.

There are a number of methodologies to leverage procurement to drive supply chain development. These include:

- A strategic partnership with national and international OEMs around how the supply chain can be localised (and exports promoted), taking advantage and support the Africa Continental Free Trade Area
- A strategic partnership with international OEMs and/or their governments around upgrading the competitiveness of national players in the OEM supply chain.
- Promoting a partnership between global and national OEMs and their supply chain to increase national value add and to increase exports of both systems and components.
- A partnership with South African OEMs around solving immediate and future production challenges

² CCRED. (2019). Sectoral Perspective for Machinery and Equipment, Industrial Development Think Tank

³ Ritchken E, Building Developmental Partnerships with Global OEMs to Accelerate Development, Unpublished Discussion Document

- Localising components on the back of a critical mass of demand and the opening up of export market.
- Developing new technology and skills relevant to the growth of the local and regional mining sector.

There are a variety of technologies and associated equipment deployed across the mining sector. This is driven by the nature of the mining (surface versus underground), the commodity being mined and the design of the mining system as a whole (which will determine the level of mechanisation).

Given this diversity, local content can vary considerably across different mining systems and commodity types. Local content can also vary across mines within the same mining house. This reflects the relatively narrow and uneven scope of national industrial capabilities which were developed historically based on national demand, which in the absence of exports, was inadequate to achieve adequate economies of scale and scope across the value chain.

In the case of very large surface mining equipment in particular, where the market is dominated by global OEMs, South Africa has limited capability. However, in certain niches of deep level underground equipment, South Africa has world leading innovations. Consequently, what is possible to achieve in relation to industrial development will vary across the sector.

3. STRATEGY OUTLINE

South Africa's mining sector has great potential for growth and expansion, including exploiting new reserves and resources. As it is commonly known, South Africa holds high reserves of the so-called minerals of the future (manganese, zinc, lead, cobalt, nickel and copper). To exploit these resources, the OEM's have a significant role to play in the mining, development and export of these minerals and products.

However, in the initial stages of this new phase of mining development and expansion, it will be challenging to increase local content in the local supply chain and to grow the local manufacturing base as envisaged previously by the mining charter. However, with the right strategy for both the medium and long term, there is an opportunity to grow the industry in a way to create the manufacturing scale needed to support localisation. The OEM Forum has identified a number of key drivers which will support the sector.

3.1 Leaning into the drivers

3.1.1 Economic Growth and New Frontiers

Business and economic cycles are important drivers for mining activity. Indeed, mining itself is cyclical, and there are already emerging signs of a mining upward trend. While certain minerals have declined over the years, mining still remains a major opportunity for economic growth and inclusion. Indeed, despite consistent changes, that "mining will no doubt survive due to its cyclical nature".⁴ A further contributing factor to the outlook of the mining sector is the growing recognition of the dangers of climate change, and the commitment to environmental sustainability.

Thus, growth through the "minerals of the future", as well as the growing demand of growth minerals, including iron ore, manganese and chrome minerals will provide opportunity for growth in demand for mining technology, equipment, and servicing.

⁴ https://www.researchgate.net/publication/332582627_The_returns_on_mining_exploration_investments

3.1.2 International Trade

Local production and local content has been limited by the size of the local sector, as well as local needs and capacity. Low volume purchases of yellow and other capital equipment by mines has not justified sustainable production of typical high value items or export from South Africa to other global OEM source centers.

However, the Africa Free Trade Area means a larger market for locally produced capital equipment. This will mean that we can build yellow and other capital equipment in the required scale and grow localisation through scale of the larger regional market.

3.1.3 Special Economic Zones

Mining equipment and technology is an important input for a competitive mining sector. However, the equipment has to be produced in a competitive manner. Special Economic Zones (SEZ) are known contributors to competitive manufacturing. The government's announced commitment to the development of SEZs is an opportunity to grow localisation and local content. South Africa has not been able to compete with the low cost of input materials (particularly steel of all grades) and foundry-based components in Europe, the East and the USA. SEZs present the opportunity to change this picture where input costs of materials can be strategically managed. Regional hubs for localisation, with a focus on special economic zones in regions such as the Northern Cape will be an important driver for localisation.

3.1.4 Junior and Emerging Miners

The South African government has a strong focus on issuing licenses to junior and emerging miners. This is an opportunity to grow the sector. The OEM's are interested in supporting this effort as it is an opportunity to grow the sector in an inclusive way. These miners will need special and strategic support to succeed. The forum sees this as an important driver for localisation as it represents an opportunity for collaboration among stakeholders.

3.2 Pillars for collaboration

It is important to build strategic pillars to anchor collaborative efforts to exploit the drivers identified above. The OEMs believe that success will be through collaborative efforts across the value chain.

OPPORTUNITY/DESIRED OUTCOME	REQUIRED STAKEHOLDER ACTION
DEVELOPING OF LOCALLY PRODUCED EQUIPMENT	Facilitating technology creation and transfer through design of locally appropriate equipment and technology
EMPLOYMENT	Developing of specialized skills to support growth and meet the demands of a growing sector and 4IR technologies.
LOCAL MANUFACTURING AND SERVICING	Growing investment into the sector by international OEM to support manufacturing in the local sector through scale.

4. CONCLUSIONS

- The OEM Forum believes that new thinking is needed in order to deliver fully the spirit of inclusive growth and sector transformation.
- A collaborative strategy and planning for the manufacturing and servicing of equipment to foster growth and localization will be needed, and will take the participation of all stakeholders.
- The OEM forum believes that there is an opportunity to tier the level and stages of local manufacturing, depending on complexity and size of equipment or systems.

- Intellectual property transfer restrictions by OEMs can be overcome through developing local know how into local needs where possible.