



INCREASED LOCAL JOBS THROUGH MINE SAFETY



AngloGold Ashanti - Mponeng

INTRODUCTION

The Minerals Council Board’s dual strategy of advocacy and investment supports members towards the acceleration of the suspended trackless mobile machinery (TMM) regulations’ technology implementation readiness. The execution of this strategy is coordinated through a multi-year special project that seeks to balance saving lives and livelihoods through a holistic, risk-phased approach. The suspended regulations relate to the automatic slow-down and stopping of trackless mobile machinery that requires the installation of the related technology to provide this functionality namely the Collision Prevention System (CPS).

The ISO 44001:2017 recognises that effective collaborative relationships are important, while the ICMC has developed several guidance and toolkits to support mining companies’ multi-stakeholder collaboration thereby contributing to communities while creating business value.

To this end, a multi-disciplinary working group comprising the Minerals Council, mining companies, research institutions, TMM original equipment manufacturers (OEMs) and original technology manufacturers (OTMs), and the Mining Qualifications Authority (MQA) has been set up. Each stakeholder plays a critical role in accelerating the ecosystem readiness efforts while this is one-of-a-kind collaboration is key to the success of the holistic, risk-phased approach that formed the basis for the execution of the project.

The Minerals Council supports localisation that enhances the global competitiveness, economy and ESG metrics of member companies. Localisation is a critical value-add from this project as there is a high potential to reduce costs and stimulate job creation within South Africa through the resultant need to supply collision prevention systems on a larger scale to the mining industry prior to and in the run up to the lifting of the suspended TMM regulations. There also lies the potential to manufacture CPS and/or its related components in South Africa that could possibly both stimulate the existing local market and lead to the generation of new markets within the country.

“The South African mining industry’s (SAMI) safety record has improved significantly over the years.”



Implats - Impala Rustenburg operations

Ultimately, this could also significantly contribute to uplifting South Africa's economy. It is for these reasons that the Minerals Council convened a workshop with key stakeholders to investigate all the potential options that could lead to a roadmap for increasing localisation potential within the country through the execution of the CPS ecosystem readiness initiative that is in progress.

ONE FATALITY IS ONE TOO MANY

The South African mining industry's (SAMI) safety record has improved significantly over the years, however, much still needs to be done to reduce fatalities and injuries. In terms of classification, fall of ground (FoG) and transport-related accidents are the leading specific causes of fatalities and injuries in the sector. For example, in 2021, FoG and transport-related fatalities respectively represented 20 and 16 out of a total of 74.

The special project on "Industry Alignment on TMM Regulations" is aimed at addressing transport-related fatalities in mines - several initiatives within the project have been implemented by the Minerals Council with the SAMI with a focus on covering all the aspects of CPS implementation. This includes not just the technological readiness aspect of CPS but a systematic analysis of the complete mining operations that relate to the usage of TMM and the requirement for CPS.



PERSPECTIVES ON LOCALISATION OPPORTUNITIES

At a macro level the mining sector procures over 83% of intermediate inputs locally and in 2020 this translated to over R454 billions of which R75.2 billion was imported goods. Total expenditure by the sector, which includes the procurement of services (including financial, insurance and health services), was over R1 trillion in 2021. As a policy, localisation is more than just procurement of goods and services, it also entails the development, adoption, and adaptation of technologies to solve local challenges.

The key project elements are:

Technology readiness involves ensuring that all components, sub systems and the overall system in mine mobile machinery have been demonstrated as ready. It is acknowledged that it might be a challenge to retrofit older or legacy machinery.

Manufacturing readiness entails the installation of new components on mobile machines to improve their safety. It will require the manufacture of new components.

Installation, repair, and maintenance skills capacity readiness

Operational readiness

For continuous installation, repair and maintenance of CPS, artisans/ technically skilled diesel mechanics, auto-electricians are required.

A knowledge transfer framework has been developed by the Minerals Council to assist the SAMI in accelerating skills readiness for CPS installation, repair and maintenance. There was also some feedback from specific OEMs and OTMs that they are also involved in localisation initiatives. There is potential to combine these efforts from the different stakeholders to create a mechanism to further stimulate the Minerals Council's localisation objectives.

The project has been divided into seventeen work packages which cover three broad themes, namely:



Operational readiness



Technological readiness including testing



Cross-cutting issues like skills capacity readiness, localisation opportunities, effects on operators, legal liability and international collaboration

The Mine Health and Safety Council (MHSC) Board approved December 2023 as the date for the lifting of the suspended regulations. The SAMI and the MHSC have been in constant engagement on the progress of the industry towards developing automatic slowdown and stop technology, both locally and internationally. These engagements are conducted through bilateral sessions and participation at the MHSC Board and the Mining Regulations Advisory Committee (MRAC). To this end, an MRAC advisory note was issued to the effect that the TMM regulations upliftment date be 31 December 2023.

For 2022, the focus of the project has been primarily on accelerating CPS testing, skills readiness, supporting the industry with traffic management, collaboration with key stakeholders, and defining perspectives for localisation opportunities which will be consolidated through a targeted industry workshop to be held during the third quarter of 2022. Due to time pressures towards end December 2023, it will be expected that processes to plan and facilitate this workshop be carried out expeditiously.

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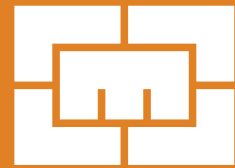
83%

LOCALISATION WORKSHOP OBJECTIVES

The question is not whether to localise but rather how to localise? To this end, the workshop aims to provide answers to the following questions:

- a. How localisation can reduce the barriers to entry into the industry so that collision prevention systems manufacturing, installation, repair and maintenance could be locally and readily available.
- b. How to ensure that a paradigm shift is made to move away from a top-down approach in favour of a model that meaningfully engages the people it intends to empower. To this end, a partner-led process where local actors are treated as equal and strategic partners and facilitator roles are central to successful localisation.
- c. How localisation maturity can be achieved noting organisations are at different stages in fully institutionalising localisation, the speed of localisation and its risk profile among others.
- d. How organisations will be guided to augment their strategic management processes to fully embrace localisation and learn from each other and other sectors (e.g. steel, automotive, etc.).
- e. How local capacity strengthening efforts could be structured considering a multi-year approach for meaningful sharing and exchange.
- f. Clearly articulate localisation objectives including but not limited to lowering costs, creating more local jobs through mine safety, identifying demand sources and opportunities to increase economies of scale, driving demand for local companies, reducing perceived risks, producing skills needed to champion and enhance local and global competitiveness, etc.

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