



**MANDELA MINING PRECINCT**  
MINDS FOR MINES

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## Mandela Mining Precinct

A programme of the Department of Science and Innovation and Minerals Council South Africa, hosted and managed by the CSIR and the Minerals Council.

### Expression of Interest (EOI)

For

### Identification of Research Partners for the SAMERDI Programme

EOI No. EOI MMP March 2023

**Date of Issue:** 7 March 2023

**Deadline of Submissions:** 21 March 2023

**Enquiries:** [Enquiries@mandelaminingprecinct.org.za](mailto:Enquiries@mandelaminingprecinct.org.za)

## TECHNICAL INFORMATION

### INTRODUCTION

The Mandela Mining Precinct is pleased to announce an **Expression of Interest Call** for the **Identification of additional Collaborative Research Partners for the South African Mining Extraction Research, Development & Innovation (SAMERDI) Programme** commencing in 2023. Applicants are requested to familiarise themselves with the information provided in this Call as well as in the SAMERDI Strategy (2015-2025), before preparing an application. The SAMERDI Strategy is available online at <https://mandelaminingprecinct.org.za/>.

### BACKGROUND

The **Mandela Mining Precinct** is funded by the Department of Science and Innovation (DSI) and the Minerals Council South Africa, to maximise the sustainable returns of South Africa's mineral wealth through collaborative research, development, innovation, and implementation of new mining technologies in a socially, environmentally, and financially sustainable manner that is rooted in the local community and national economy. It was established to assist with and coordinate the implementation of the South African Mining Extraction Research, Development & Innovation strategy (SAMERDI).

The SAMERDI Strategy was adopted at the Mining Phakisa as a basis for the revitalisation of South Africa's mining R&D capability and capacity through **collaboration and support** from researchers, scientists, and engineers. The strategy provides a roadmap on how to work collectively towards technological solutions that will enhance health & safety, increase productivity, and reduce working costs to ultimately extend the life of mines and build the local mining supply chain.

The vision of the SAMERDI strategy is ***“to maximise the sustainable returns of South Africa's mineral wealth through collaborative research, development, innovation & implementation of mining technologies in a socially, environmentally and financially sustainable manner that is rooted in the local community and national economy.”***

The SAMERDI implementation programme comprises the following five programmes:

- **Longevity of Current Mines (LoCM)** – Designed to increase the efficiency of ore reserve extraction, improvement in Occupational Health and Safety, extension of the life of mines and the reduction in costs of current conventional mining operations.
- **Mechanised Mining Systems (MMS)** – Aimed at providing sustainable mechanised drill, blast, and mechanical rock breaking solutions in advancement to facilitate achieving zero harm, whilst maintaining and defending desired production rates at minimised costs, within the Au, and PGM mining industries.
- **Successful Application of Technologies Centred Around People (SATCAP)** - The aim of the SATCAP Programme is to understand the challenges, effects and impacts of mining modernisation on people in the minerals sector. Aligned to this aim, the SATCAP Programme has a journey map, which depicts the research plan, with phases, which is poised towards its 2030 vision.
- **Real Time Information Management Systems (RTIMS)** - Aims to develop and implement smart connected systems for mining from sensor to dashboard.
- **Advanced Orebody Knowledge (AOK)** – Aims to create the ultimate 'Glass Rock' environment which includes improving geological confidence ahead of the working face, reduction or identification of risks associated with geology and to have timeous information.
- **Test Mine** – an underground test facility is planned to be established to assist with the creation of infrastructure for developing and testing mining technologies, and for industrial training.

These programmes contribute (collectively and individually) to the following criteria of:

- Increasing the competitiveness of the industry.
- Creating new industries; and
- Allowing for technology localisation.

The programmes operate in a **collaborative way**, utilizing the skills and expertise of several research partners that comprise universities and research institutions. **This EOI has a focus on increasing this pool of research partners specifically for the area indicated in Annexure A.** The research conducted in each Programme is completed through projects that are undertaken collaboratively by teams of researchers, from the identified research partners. These projects are allocated to Research partners based on proposals submitted in response to a call for proposals under each programme. They are evaluated by the Programme Managers (PM) based on the criteria specified, and the evaluation outcomes will be presented by the PM to the Technical Steering Committee (TSC) for final approval. The successful partners will then be approached to formally contract with the Precinct.

Specific areas where we require capacity are reflected in Annexure A.

**Note 1:** This is purely an opportunity to be considered part of our **pool of potential collaborators** and **does not guarantee any party contracts.** Contracts are only awarded to successful parties based on the call for proposals.

**Note 2:** The Mandela Mining Precinct is not a legal entity and all appointments and contracting will be done through either the Council for Scientific and Industrial Research (“CSIR”) or Minerals Council South Africa (“Minerals Council”).

**Note 3:** Organisations that are **already part of the collaborative pool of MMP** should not re-apply. This is purely to add additional parties to this group in focussed fields where expertise is still required.

#### INVITATION FOR EXPRESION OF INTEREST

Expressions of interest are invited from suitably qualified institutions, based on the evaluation criteria below. The aim is to increase the number of Research Institutions for collaboration in the mining projects. Only institutions with relevant capacity, expertise, experience, resources, and necessary facilities /equipment will be considered.

The focus of this particular call is for the AOK programme.

#### EOI SPECIFICATION

All proposals are to be submitted in the format specified in this document. However, applicants are welcome to submit additional / alternative information over and above the originally specified format. Providers must provide the information for the following criteria/format and provide proof thereof:

- *Organisation’s demonstrated relevant experience* - Years operating or conducting applied research in the Mining or mining-related/applied industry.
- *Organisation’s relevant skills, expertise, and broad capabilities;* The size, nature and depth of the team consisting of at minimum, a contracts/project manager with at least 10 years’ experience in the mining discipline, as well as relevant technical resources in the relevant field.
- *Organisations record of accomplishment in relevant field:* i.e., list of previous projects in the Mining or mining-related/applied industry.

**NOTE:** To be added to the Mandela Mining Precinct database, your institution needs to be registered on National Treasury’s Central Supplier Database. We urge all respondents to register on this system as soon as possible, so

that the administration process and potential contracting can be completed timeously. Registrations can be completed online at [www.csd.gov.za](http://www.csd.gov.za).

## ELIGIBILITY

Researchers from South African Universities and Science Councils, and other public or private research institutions and equipment suppliers, working in relevant disciplines, are invited to submit an **Expression of Interest Proposal**. Investigators (PI)/Lead Experts must be qualified to do the proposed research and should be experts in the subject matter referenced in the SAMERDI strategy and programmes.

The evaluation of technical requirements of the EOI will be based on the requirements listed in the table below:

Requirement	Acceptance Criteria	Weight	Score	Weighted score Score*weight
Demonstrated relevant experience in the Mining /applied Mining/mining-related /ICT/Digitalisation/IIoT domain and related services/products/solutions or domains	>10 years mining/domain experience – 10 points. 8-10 years – 8 points 6-8 yrs.- 6 points 1-5 yrs. – 4 points	20%		
Relevant skills, expertise, and broad capabilities (latter also includes facilities and equipment)	Full team clearly has the qualifications, skills, and capabilities aligned with Precinct’s Mining Research and Solutions requirements, including strong engineering skills. 100% fit - 10 points 75% fit with requirements- 8 points. 50% partial fit with requirements- 5 points Tenuous fit- 3 points	60%		
Record of accomplishment in relevant field - list of previous projects in the Mining/applied Mining/ IT/digitalisation/IIoT or another mining-related domain.	References and/or proof of relevant research expertise by providing a list of at least 5 similar projects in a similar field with a minimum of 5 contactable references has been provided, OR a minimum of 5 letters from clients (on their letterhead) stating that the organisation has performed work of this nature. 10 points. 3-4 References and/or proof- 10 points < 1-2 References /proof – 5 points	20%		
TOTAL		100%	30	10 (max)

Expression of interest with functionality / technical points of less than the pre-determined minimum overall weighted percentage of 70 % (i.e., 7/10) and less than 50 % on any of the individual criteria will not be considered i.e., 5/10 per individual category)

## ELIMINATION CRITERIA

Submissions will be eliminated under the following conditions:

- Submission after the deadline.
- Proposals submitted at incorrect Email address.
- Submissions from restricted suppliers in line with Treasury Regulations.
- Submission of incomplete documentation.

## TERMS AND CONDITIONS

### PROPOSAL SUBMISSION

To be eligible for consideration, submissions must be submitted in MSWord or PDF format. All submissions must be submitted via email: **Enquiries@mandelaminingprecinct.org.za** no later than the closing date. The business hours are between 08h00 and 16h30. Late submissions will not be considered.

### RESERVATIONS

The CSIR/ Minerals Council expressly reserves the following rights:

- To reject all or any submissions
- To waive any or all irregularities in the submissions submitted
- To retain the right not to select any application/s even if meeting all the requirements.

### CONTRACT NEGOTIATIONS

The successful applicant/s will be required to enter into a written Agreement with either the CSIR, who hosts public funded projects of the Mandela Mining Precinct on behalf of the DSI, or the Minerals Council (if projects are funded by Minerals Council).

### CLOSING DATE

Applications must be submitted electronically via email to **Enquiries@mandelaminingprecinct.org.za**. The deadline for the submission of proposals is **Tuesday, 21 March 2023 at 16:30**

All applicants will be notified about the outcome of their applications before the end of March 2023 to allow them to participate in the bids and proposal submissions associated with the contracts for 2023/24 financial year.

### VALIDITY

All applications will be regarded as valid for 120 days from the 21 March 2023, where after the CSIR/ Minerals Council may request an updated application, should this become necessary.

### DISCLAIMER

This EOI is an expression of interest only and not an offer document. Answers to this EOI must not be construed as acceptance of an offer or imply the existence of a contract between the parties. By submission of its proposal, tenderers shall be deemed to have satisfied themselves with and to have accepted all Terms & Conditions of this EOI. The CSIR/Minerals Council makes no representation, warranty, assurance, guarantee or endorsements to tenderer concerning the EOI, whether regarding its accuracy, completeness or otherwise and the CSIR/ Minerals Council shall have no liability towards the tenderer or any other party in connection therewith.

## GUIDELINE FORMAT FOR PROPOSAL

- Name of institution/company and all relevant contact information
- Broad statement of capabilities that will enable the panel to determine level of fit with SAMERDI strategy/programmes.
- SAMERDI Programme Area of focus (**AOK**)
- Comprehensive information on how organisation meets stated requirements.
- Confirmation of registration on National Treasury’s Central Supplier Database.

Requirement	Information provided to substantiate requirement
<p>Demonstrated relevant experience in the Mining /applied Mining/mining-related /ICT/Digitalisation/IIoT domain and related services/products/solutions or domains.</p> <p><i>Years’ operating/conducting applied research in the Mining or mining-related/applied industry.</i></p>	
<p>Relevant capacity wrt skills, expertise, and broad capabilities (latter also includes facilities and equipment)</p> <p><i>Give the size, nature, and depth of the team; contracts/project manager with at least 10 years’ experience in the mining discipline, as well as relevant technical resources in the relevant field.</i></p>	
<p>Record of accomplishment in relevant field - list of previous projects in the Mining or mining-related/applied industry.</p>	
<p>Submit any other additional / alternative information that you believe to be relevant</p>	

## **Annexure A: Specific areas where we are seeking collaborators and capacity.**

### **AOK**

- Mapping and scanning technologies to see into and around the rock face which can include photogrammetry, laser scanning, thermography, radar, acoustic sounding, hyperspectral sensing.
- Technologies that can capture geological/geotechnical information in real time for a 3D geological model.
- Technologies that allow Geotechnical/geological data to be converted into usable information (which may include visual) with limited interpretation or interference by the user.