



Prospectus brief INVITATION TO PARTICIPATE

Evaluation and support for closure decisions

Tangible and intangible costs and risks

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What is the challenge?

The current evaluation techniques used in mining are very dependent upon the perspective of the user. The value proposition around mine closure will often be different for the company, community including Indigenous communities, and government.

For some stakeholders costs and benefits from a mining operation (or closure of the operation) are not tangible and will have a longer-term view that is often unrelated to cash flows, leading to two key challenges:

- Value propositions do not align raising a need for evaluation techniques that recognise these differences so that useful, representative information can be created.
- Difficulty in identifying and quantifying 'intangibles' leading to decisions being made with metrics that do not include all the necessary information resulting in an incomplete calculation of residual risk.

Consequently these issues cause a lack of confidence in the appropriateness of the offset to allow relinquishment and difficulty reporting into Environmental, Social and Governance (ESG) frameworks. The challenge is to create an inclusive decision-making framework that facilitates the achievement of agreeable goals derived from multiple objectives.



Opportunities for Co-design

The shift towards ESG compliant operations is the backbone upon which this research is being proposed, as mining industry participants (companies, governments, communities, Indigenous groups and other stakeholders) require tools and techniques that create information upon which decisions relating to events far into the future can be made with confidence.

CRC TiME partners are encouraged to join a process of defining the challenges associated with the calculation of decision metrics that will identify and incorporate:

- Shared value proposition of the multiple stakeholders and;
- Intangible opportunities, costs and risks into the decision-making processes.



Background

With an increased awareness by investors and community groups, shifts in mining related policies have meant that responsible mining can no longer focus solely on monetary targets, but are required to embed ESG guiding principles within operations. The ability of a mine to effectively close operations with an acceptable and sustainable post mining land use has become a key measure upon which the ESG compliance of a company is measured. Being a responsible, sustainable modern mining operation now means being economically viable, while also operating in an ESG compliant manner, which means recognising non-monetary factors of importance to stakeholders within the decisions being made.



Intended Benefits

- The modelling of an inclusive value proposition will recognise the diversity of stakeholders in a transparent fashion to facilitate project partnership with shared objectives and responsibilities.
- Consistent information being used by all stakeholders will enhance communication with respect to decision-making processes. Stakeholders (i.e. Companies, Communities, Indigenous groups, NGOs, International/domestic Representative Organisations, etc.) will be provided with tools that facilitate a transparent, common approach to showing the influence of intangibles, which will lead to greater clarity and certainty in the decisions made.

Development of improved evaluation methodologies for long-life projects

The project will be multi-disciplinary and leverage off the evaluation techniques currently in use, adjusting and complementing them to ensure industrial uptake. Through a modular design, work packages can be undertaken as stand-alone projects, with a combination work package (WP3) dedicated to facilitating the practical uptake of the outputs within currently used tools and processes, as informed by the outputs from work packages one and two (WP1 & WP2).

Two proposed work packages are devoted to investigation of the mechanics behind evaluation techniques to document implementation issues and identify methodologies for improvement. These will focus on:



Identify

Identifying decision metrics that address the desires of all affected stakeholders. It is recognised that mining projects offer many benefits beyond short-term monetary benefits when viewed from the multi-stakeholder lens, and these other “values” should be recognised so that strategic decisions are not only economically viable, but also ESG compliant.

Create

Create a methodological approach to determining the importance of intangibles and their representation within the calculation of various decision metrics. The aim is to improve the recognition of uncertainty included within the valuation methodology used to evaluate long-life projects.

For further details or to indicate your interest, please contact A/Prof Bryan Maybee

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