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Successful Application of Technology Centred Around People (SATCAP)

Change impact evaluation dashboard for the adoption of modern mining technologies

17 October 2024



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Project Overview



Test and provide an implementable CM Blueprint for adoption of modern technologies, using the plant inspection platform as a case/pilot study

Transfer the CM Blueprint to the project mine

Interlink the CM Blueprint to a Change Impact Evaluation Dashboard



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Methodology



The following methodology was undertaken:

- CM Blueprint validated in a case study on digital Shiftboss logbook
 - Transition from paper to digital
 - Legal considerations
 - Technical considerations
- Validation of Critical Success Factors for the adoption of new technology
- Focus groups and on-site engagement
- Identification of key indicators (17 in total)
- Integration with Impact Evaluation Dashboard



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Critical Success Factors (prior to undertaking CM)



Critical success factor	Description
Organisation digitisation journey / technology roadmap	When engaging with your team members, the digitisation roadmap can visually illustrate the journey and the aspects that should receive attention. During the process, the impact on people is acknowledged. Engage earlier rather than later.
History assessment / lessons learnt	Opportunities should be created with current worksite to reflect on lessons learned with previous technology initiatives. It is also advisable to benchmark within the company where other or similar technologies were implemented.
Current versus future resources (technology resources readiness)	Current resources and/or what is already in place for the current project.
Modernisation and digitisation governance	Policies and procedural requirements and interface.



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Key Indicators



- **Organisational:** aims to gauge how the technology projects are tracked in terms of impact on business processes, safety and financials.
- **Change management process:** aims to assess the peoples' readiness in terms adoption of change and gauges awareness of new technology, desire for new technology, knowledge of new technology, ability to use new technology and support for new technology.
- **Project:** aims to gauge the level of each project implementation and success thereof in terms of planning and introduction of the new technology project in the mine environment, and measures whether the project was on time, within scope, of acceptable quality and within budget
- **Technology:** aims to gauge the level of readiness in adoption of new technology within the organisation, including leadership readiness, organisation readiness, technology readiness and policies, procedures and process readiness.
- **People:** aims to assess peoples' engagement with new technology and implementation thereof, and gauges the number of people using new technology, people using new technology versus baseline, proficiency in using new technology and peoples' satisfaction using new technology.



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ESG Impacts Lens Dashboard



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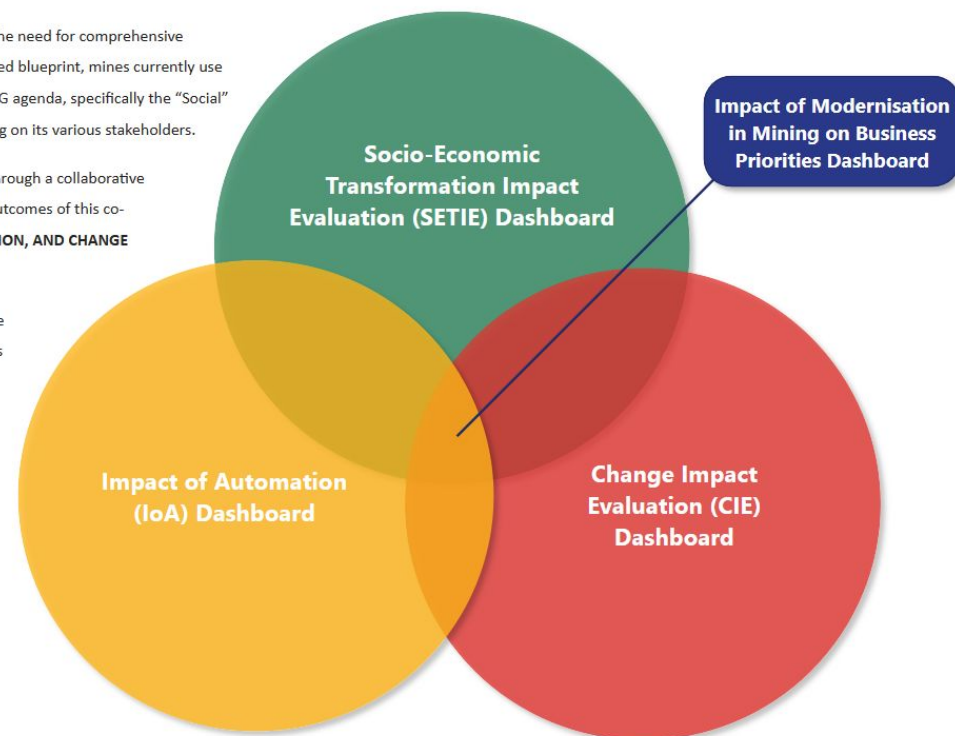
[Home](#) [How-To](#) [SETIE Summary](#) [IoA Summary](#) [CIE Summary](#) [>](#)

Environmental, Social & Governance (ESG) Impacts Lens Dashboard

The journey of digitisation in mining is progressing, and the recent 4IR study highlighted the need for comprehensive harmonisation on reporting on ESG in the mining sector. In the absence of a widely adopted blueprint, mines currently use their own methods and path of reporting for progress on ESG. SATCAP's focus is on the ESG agenda, specifically the "Social" principle. To that end, SATCAP strives to understand the impact of modernisation in mining on its various stakeholders.

To that end, three integrated impact evaluation dashboards were designed and created through a collaborative effort between the mining industry, academic partners, and collaborative partners. The outcomes of this co-creation were the **SOCIO-ECONOMIC TRANSFORMATION IMPACT, IMPACT OF AUTOMATION, AND CHANGE MANAGEMENT DASHBOARD**.

The integrated impact evaluation dashboard act as a mechanism for mines to measure the change and impact of modernisation on their operations and host communities, as well as providing a method to measure themselves along the modernisation journey.



Useful Links

[SATCAP Website](#)

[Surveys](#)

[Guideline](#)

[Excel Data Inputs](#)



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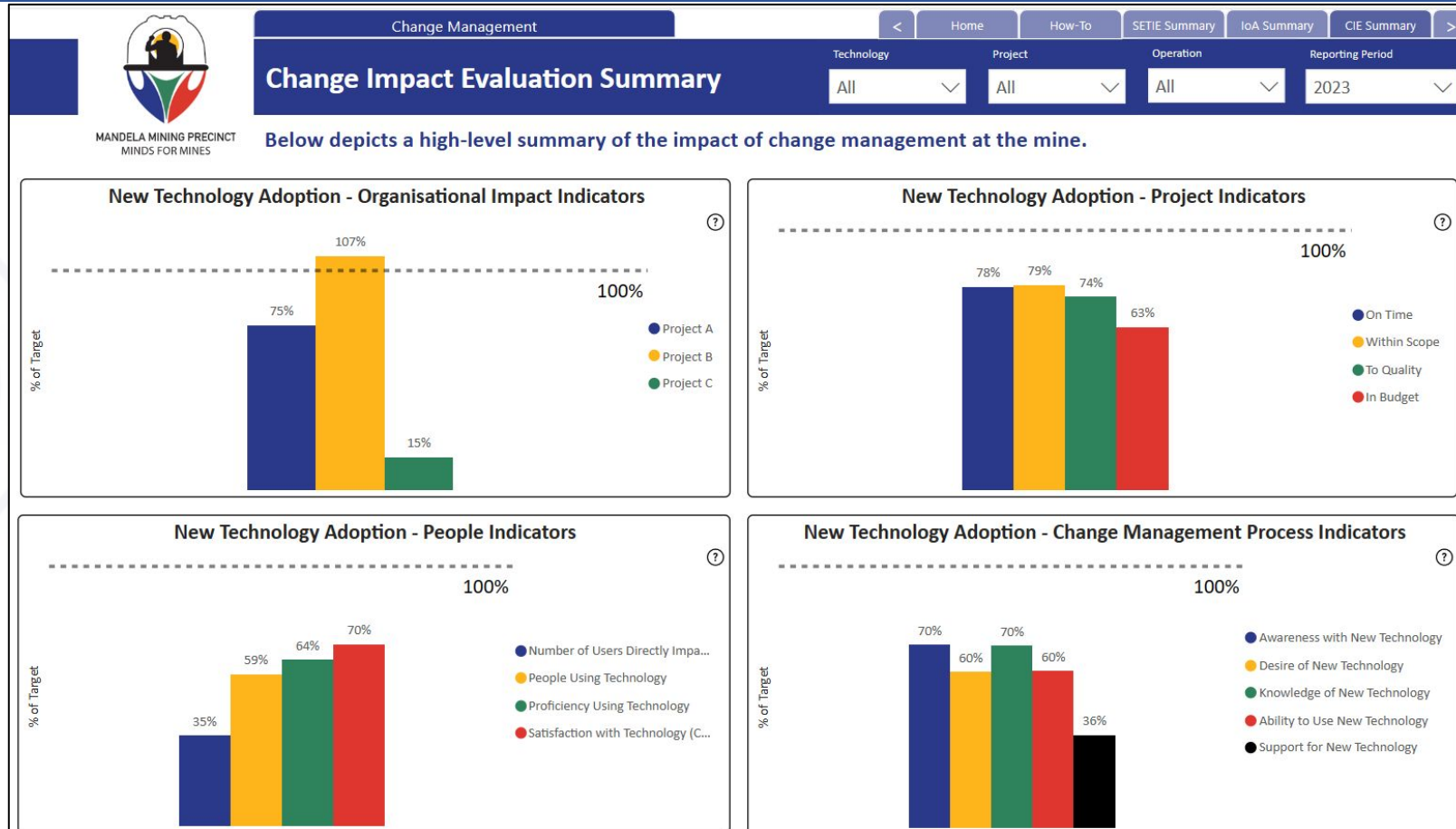


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Change Impact Evaluation Dashboard (Summary)



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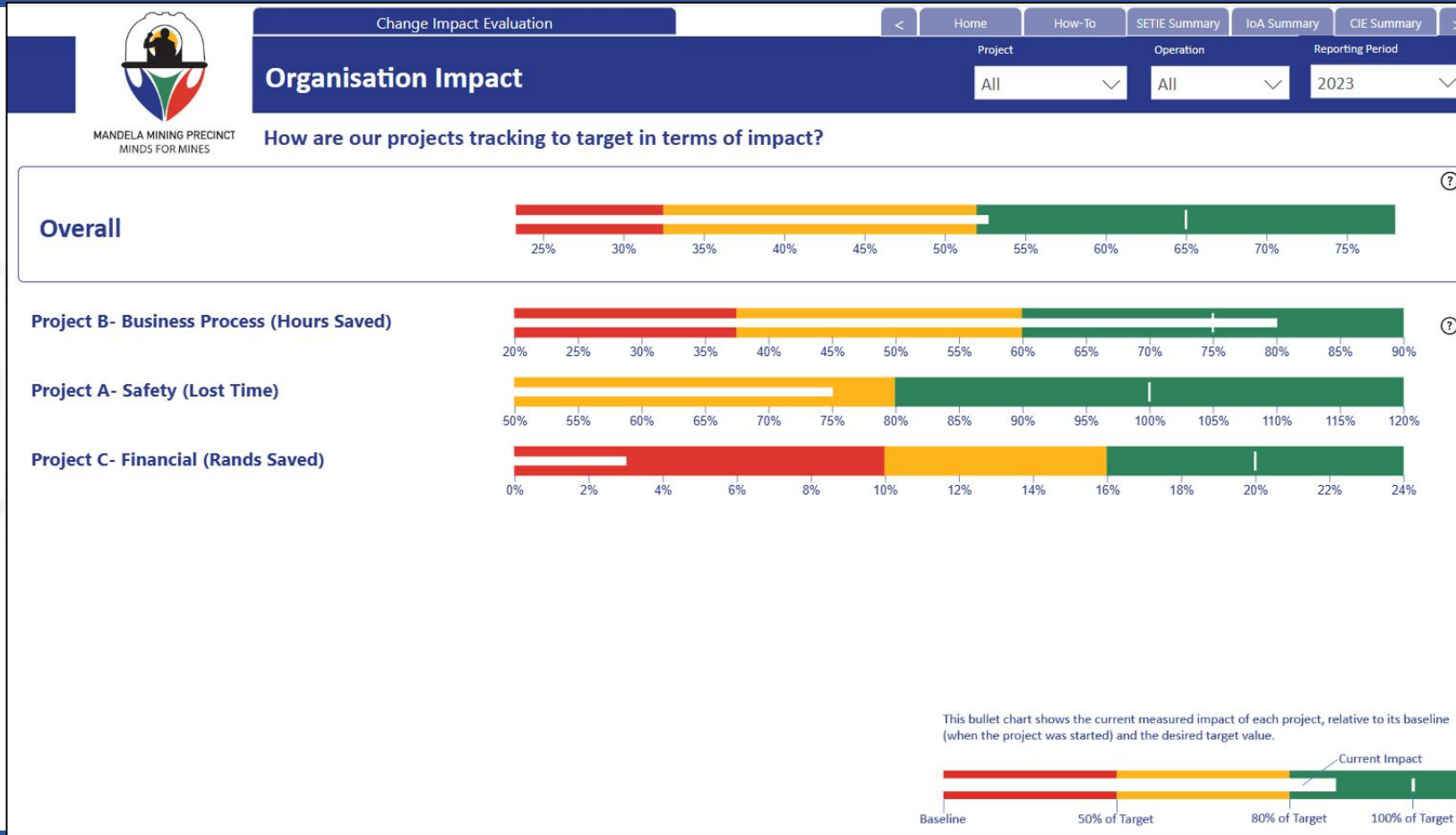


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Change Impact Evaluation Dashboard (Organisational Impacts)



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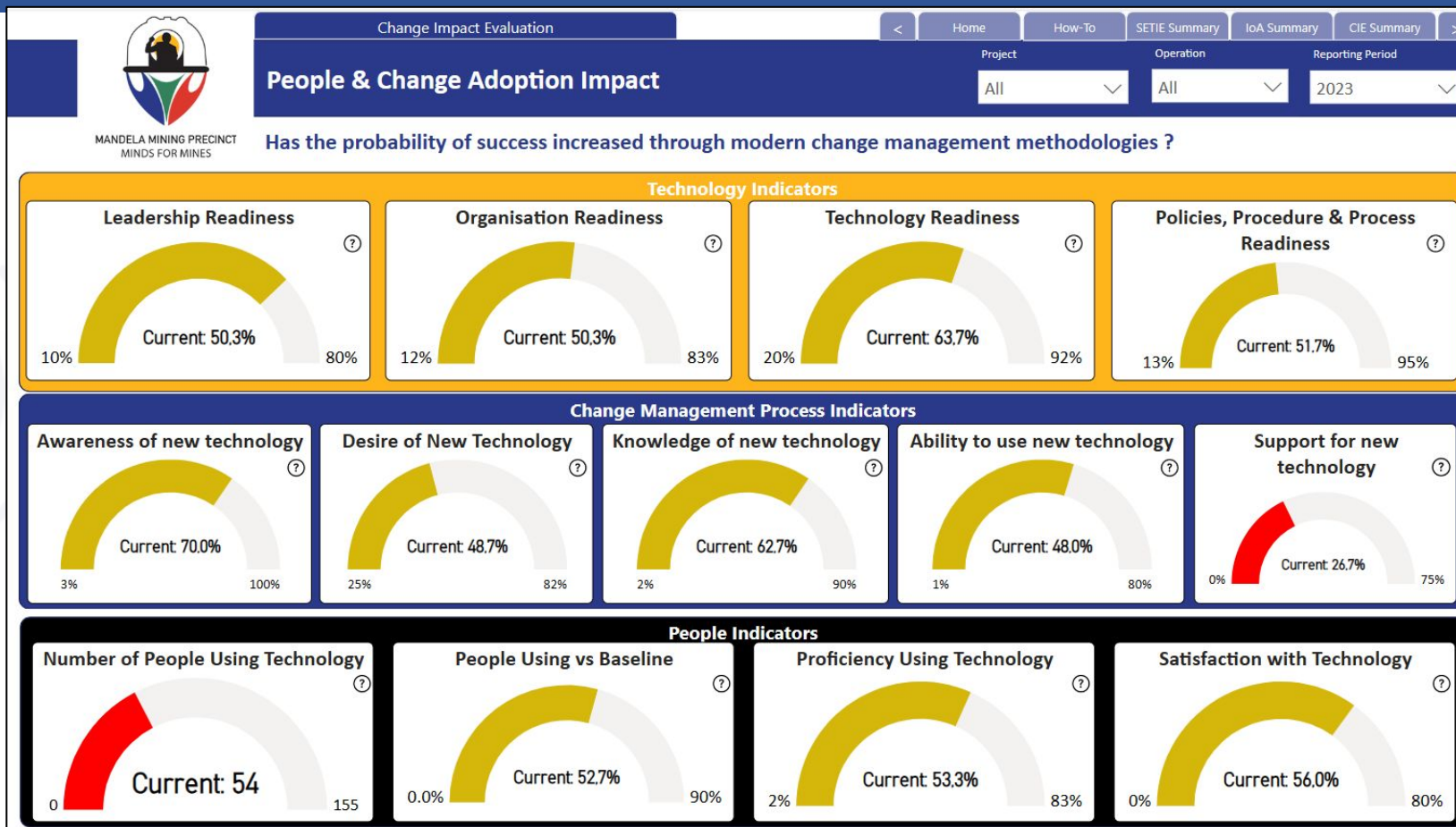


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Change Impact Evaluation Dashboard (Technology, Process and People Impact)



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Change Impact Evaluation Dashboard (Project Indicators and CM Blueprint Application)



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Conclusion



- CM Blueprint informed the indicators for Dashboard
- 4 Critical Success Factors were identified for the adoption of technology projects
- IE Dashboard supports mining operations with measuring impacts/success of technology adoption projects
- Change IE Dashboard plugs into the ESG Impacts Lens Dashboard - Links to:
 - Socio-Economic Transformation IE Dashboard, and
 - Impacts of Automation Dashboard
- Focuses on key business priorities:
 - People
 - Productivity
 - Cost and
 - Safety



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