

MANDELA MINING PRECINCT

Successful Application Of Technology Centred Around People (SATCAP) as an Enabler For The Inclusion Of Women, Youth And People Living With Disabilities In The Sector

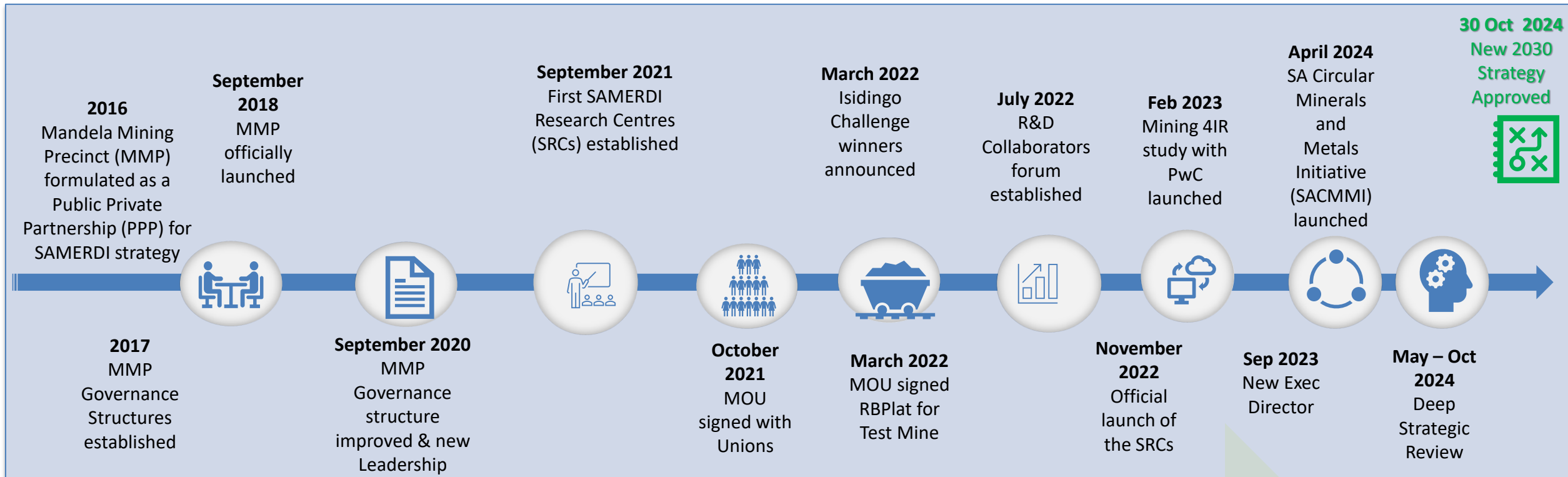
Minerals Council South Africa: 19 June 2025





THE MMP STORY

Current website – relaunching in 2 months <https://mandelaminingprecinct.org.za/>



Purpose

Firstly, to **develop technological solutions** that will **increase the safety and productivity, reduce the costs,** and ultimately **extend the life of mines** for the betterment of the local communities associated with mining and the country.

Secondly, and equally critical, to **revitalise the Mining Research, Development, and Innovation (RD&I) capability** in the country so that South Africa can once again be seen as the focal point for many mining RD&I offerings.

Thirdly, to **support the capacity** of the local mining supply chain as partner in RDI, and its ability to respond adequately and timeously to the needs of the SA mining industry.



MANDELA MINING PRECINCT
MINDS FOR MINES

OVERVIEW SATCAP AS AN ENABLER FOR THE INCLUSION OF YOUTH, WOMEN AND PEOPLE WITH DISABILITIES

Youth

Capacity development

- Interns
- SAMYA
- SRCs: Postgraduate Students
- SATCAP Collaboration Research Projects: Post-graduates inclusion
- DMPR/ SATCAP Collaboration: Careers (School youth)

Women

Women Empowerment

Themes:

- Leadership in mining, Careers in Mining, Women Career Pathways for Progression/Advancement, Women inclusion in digitalisation and modernisation (ICT etc.), Networking, Mentoring
- Jobs & Skills for modernisation
- Modernisation & Green skills
- Women participation in Green energy, JET and Circularity
- Gender Based Violence
- Wellness

Diversity

Partnerships fostered with entities driving diversity and inclusion:

- MMP Research collaborators, including CSIR and Universities (immersive study tours)
- Trade Unions, DMPR, MQA, merSETA MHSC, HSRC, MEMSA (Jobs and Skills needs)
- SAMYA, WiMSA, Minerals Council SA, NGOs (Empowerment & Entrepreneurship)

Inclusion efforts through:

- Conduct **Study tours and Webinars** for capacity development
- **Research:** Conduct research work, Project Leads, Speakers, Panel members, Facilitators, Dissemination (Presentations, Conference Papers/ Publications)
- **Empowerment** events: With inclusion and empowerment themes in focus
- **Partnerships** fostered to support & drive the inclusion agenda

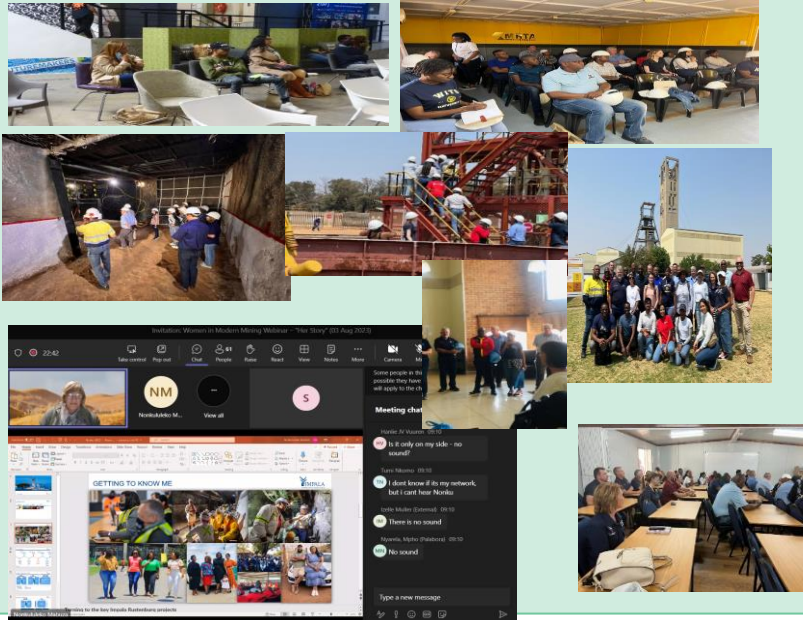


MANDELA MINING PRECINCT
MINDS FOR MINES

YOUTH INCLUSION EFFORTS

Study Tours (Immersion & Exposure)

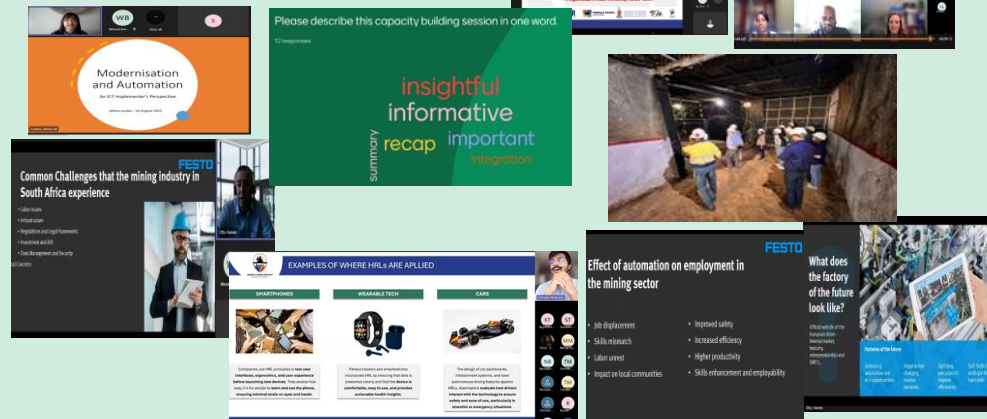
- Modern training/ skills development: Mining Universities, Murray & Roberts Training Academy, CSIR Learning Factory, South Deep
- Webinars: Learnings from other sectors: Agri, Auto & Banking; Tshimologong (Skills development, Jobs impacts, Digital innovation & Entrepreneurship)



Capacity development webinars for Interns, SRC students, junior researchers & South African Mining Youth Association (SAMYA)

Themes included:

- Supervisory Leadership Development
- Digital Literacy
- Change Management
- Human-centred design
- People-centric change
- Just Energy Transition
- Critical Minerals
- Transitioning to low carbon



SATCAP/ DMRE Careers study tours

- Mining as a career
- Digital innovation
- Entrepreneurship



Key take-aways - Participants saw value in:

- Valuable information provided on careers in mining and the different career paths
- Presentation on digital and entrepreneurship career options
- Information shared on future mining and people skills

HDSA Students Capacity Development

SATCAP interns are appointed for research, development and exposure to human aspects in modernisation. Post-graduate students are involved in SATCAP projects (through our Research Leads) to develop through literature review, data gathering, stakeholder engagement activities, etc.

SRC (Wits) post-graduate students do SATCAP related research work at Honours, Masters, PhD, Post-doc levels

SATCAP Webinar:
Presentation provided by SAMYA on their survey results on Future of Mining and opportunities for Youth/ Entrepreneurs



WOMEN INCLUSION EFFORTS

Women Empowerment 2022 (Her Story)

Navigating Careers, Progression and Stressors in Mining

Participants included: MMP, DMPP, Mines, Universities, Trade Unions, Consultants, Researchers, Minerals Council & a Wellness Coach



Women Empowerment 2023 (Her Story)

- **Career pathways** for women engineers and geologists in mining
- **Women inclusion in digitalization** in mining – skills, opportunities, and **women leadership in ICT** in mining
- **Mentorship** support for women in early mining careers
- Profiling research of **young women researchers**: The ergonomics of modern mining equipment used by women in modern mining towards supporting of health and safety

Green energy study tour and webinar

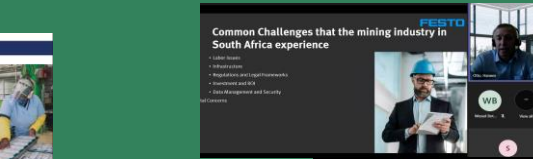
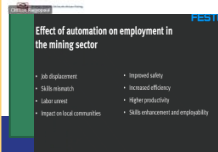
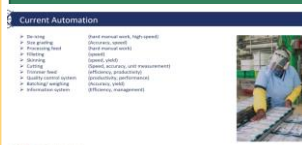
Stakeholders were immersed into green energy research projects and related initiatives – including Q&A/ discussion around women and entrepreneurs' potential inclusion



Webinar: Circular economy
Insight: Recycling and waste management plans are needed for technologies post application (Women & entrepreneurs supply chain potential)



Women included as speakers, panelists, facilitators, participants in Modernisation Webinars – sharing expertise, insights and facilitating dialogue



Women Empowerment 2024 (Her Story)

The event celebrated the contributions made **by women leading the charge in green energy initiatives** and also allowed for speakers to share their impacts, experiences and involvement in the green energy space. A representative from an NGO shared their work on sustainable agriculture and the direct impacts on communities.



Women Researchers included in SATCAP

+50% women researchers included every year
SATCAP projects, including
1 Disabled women researcher and including women in projects as Project Leads, Researchers and Facilitators



MANDELA MINING PRECINCT
MINDS FOR MINES

PEOPLE WITH DISABILITIES INCLUSION EFFORTS

A **Lead researcher** in the SATCAP collaboration team is a **person with disabilities**. Her inclusion ensures there is a focus on a diversity and inclusive approach. She is actively involved in research, engagement and women empowerment projects and dissemination for SATCAP projects.



Inclusion of WiMSA in SATCAP empowerment events including a WiMSA disabled women representative, as a speaker in the SATCAP ICT/ Mentorship-related empowerment webinar - who is also a champion for people with disabilities in the mining sector.



SATCAP collaborates with WiMSA through women empowerment events. WiMSA provides a space for networking, mentorship, and outreach to younger women to find a place in STEM, to ensure the continued inclusion and retention of women in mining – which is supported by SATCAP.

SATCAP has partnerships with entities that also support & drive the diversity & inclusion agenda

Study Tours: Wits, UP, CSIR Learning factory

Immersion of stakeholders into modern training for modern mining (UP VR Centre, Wits DigiMine, CSIR Learning Factory, Murray & Roberts Academy)



Study tour participants on the CSIR learning factory study tour facilitated exposure into digital tools and technologies that can support **the inclusion of people with disabilities in digitalisation within the mining and manufacturing sector**. This exposure helps stimulate researchers and students with possible projects and initiatives with a human centric design and technology inclusive approach.

MMP/MQA MoU sign-off



MMP/MHSC MoU sign-off



Organised Labour



Minerals Council

Representatives participate in SATCAP gender and inclusion events as speakers, panelists and participants. MMP supports the Women in Mining Adjudication & Awards



Feedback from the Women Empowerment “Her Story” Webinar



- Obtained more **knowledge and gained exposure** to different paths/careers in the mining field
- Principal: **Beneficial experience** for learners to gain information in careers
- Teacher: Learners have **access to information** on careers in mining
- Learner: I gained **more knowledge around mining** careers and digital careers
- SAMYA: It taught me to be more **open minded about the various career paths** in mining= aside from just the “traditional” mining engineer or operator role
- Learner: To be **more exposed** to different career choices
- Learner: I did not know much about mining and the study tour **opened my mind**
- SAMYA: There are a **variety of choices** for learners to choose from in the mining and digital innovation space
- Governing Body: Learners **gain exposure to various careers**

Activity	Total number of participants	Number of youth Participants	Number of female participants
Women empowerment webinar 2023	90 online	10	80
Women empowerment hybrid 2024	52 (24 online, 28 in person)	16	45
Careers study tour 2024	90 in person (incl. educator staff)	63	55
Immersive study tour 2023 (AIDC, CSIR) Automotive and banking webinar	25 in person 33 online	15	10
Immersive study tour and webinar 2024 (Mintek)	33 (9 online 24 in person)	6	19
Student capacity building 2023 -Webinars and Study tours	23 online	19	4
Student capacity building 2024 -Webinar and Study tours	18 online	14	6
Webinar 2023 Just Energy Transition	45 online	15	10
Webinars 2024 -Modern training innovations -Low carbon transition	32 online 36 online	8 12	13 14



MANDELA MINING PRECINCT
MINDS FOR MINES

INCLUSION CONTINUES...SATCAP 2025

Modern training for modern mining immersive study tour and webinar

- Immersive tour and webinar showcasing solutions modern mining training - using simulations, gaming, VR and AR solutions.
- Participants: Interns, SRC students, Trade Unions, junior researchers, SAMYA (includes women and youth).

Women Empowerment

- *Session 1 Theme: GBV issues in mining*
- *Session 2: Jobs and Skills to support advancement and progression of women in modern mining*

Focus is on issues, and potential mitigation/ approaches/ strategies towards addressing issues

- Participants: Industry, Interns, SRC students, Trade Unions, junior researchers, SAMYA, NGOs (includes women and youth).

Industry Dialogue

To determine research needs and Research Questions (Phase 1)

-The Future of mining survey

- *Winning Hearts and Minds of workers for safe behaviour and culture (Psychological and sociological effects)*

Participants: Industry, Interns, SRC students, Trade Unions, Researchers, SAMYA, Academia, Subject experts (includes women and youth).