



**OUR JOURNEY
TOWARDS A
BEST-IN-CLASS
SAFETY STRATEGY**

June 2023

JSE ticker code: HAR
NYSE ticker code: HMY

**MINING WITH
PURPOSE**



TRANSFORMING HARMONY

OUR JOURNEY TO AN INDUSTRY LEADING
SAFETY PRACTICE

MINING
WITH
PURPOSE

BACKGROUND AND HISTORY

Key actions taken to address challenges



The challenge

High number of loss-of-life incidents in mining industry

Harmony's safety record needed to improve

Zero harm and zero loss of life benchmarks set by the mining industry

Benchmark adopted by Minerals Council South Africa

Harmony adopted zero harm benchmark

UNDERSTANDING THE REASON FOR SAFETY PERFORMANCE



Diagnostic survey exercise (2016)

- Conducted by third-party in all operations
- Investigated:
 - Culture, leadership and governance
 - Recognition and mitigation of risks
 - Management of continuous improvement



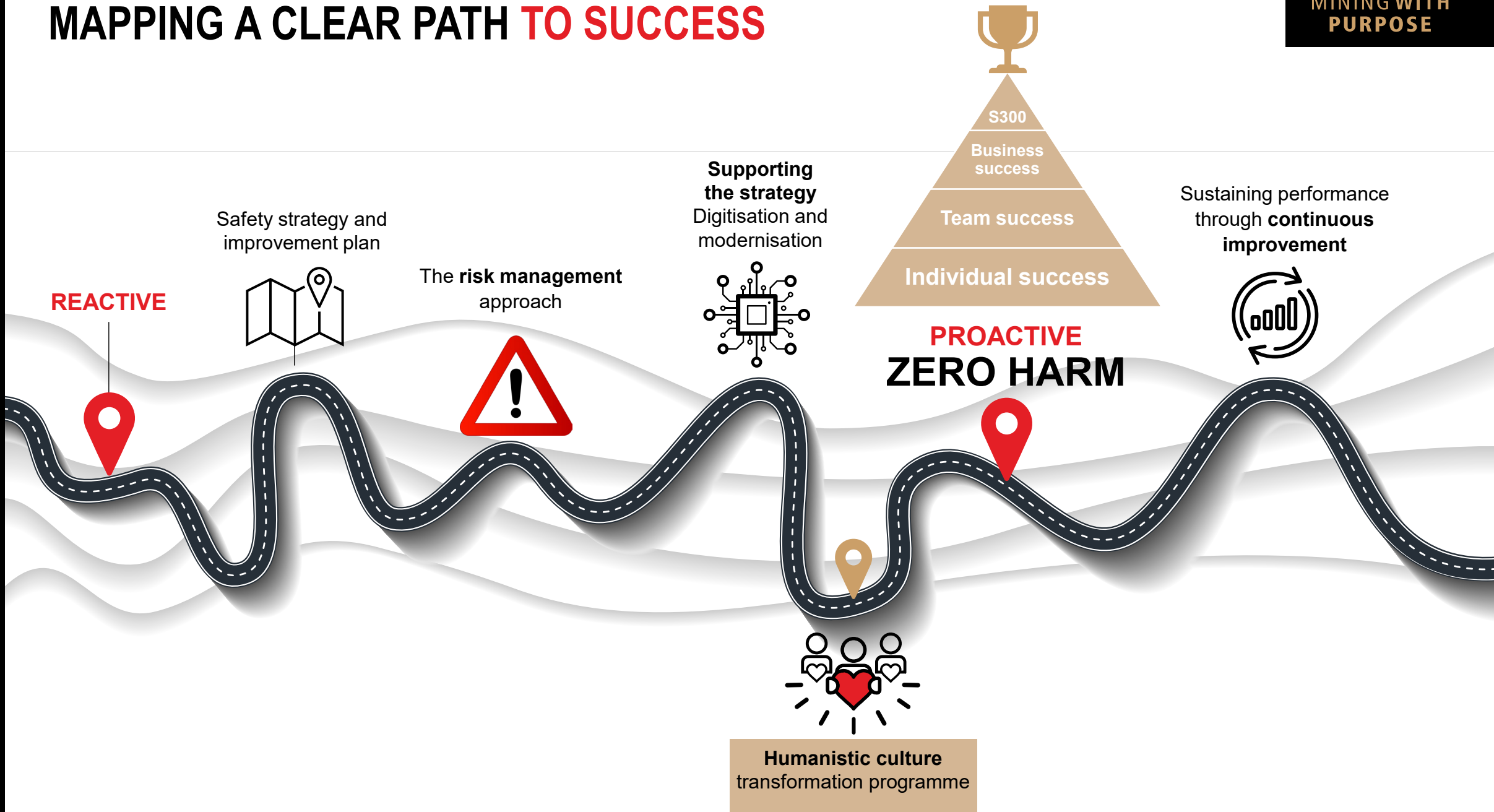
Survey outcomes (2016)

- Harmony had a reactive risk and safety culture
- Responding to risks after event occurrence
- Limited tools and processes to support proactive safety and risk culture

“Limited information available to analyse and take decisions proactively to mitigate risks”



MAPPING A CLEAR PATH TO SUCCESS



CLEARLY DEFINED SAFETY STRATEGY

Safety strategy and improvement plan



RISK MANAGEMENT

– proactively address safety risks and reduce harm



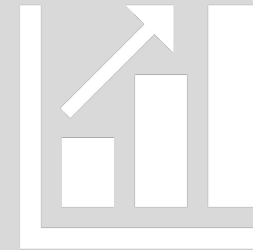
ASSET MANAGEMENT

– maintenance and asset integrity reduces safety risk



ENFORCEMENT

– self-disciplined employees and enablement systems



IMPROVEMENT

– continuous improvement and learning mindset



LEADERSHIP AND CULTURE

– active leadership and genuine care for safety, health and the environment



ENSURING RISK MANAGEMENT AND SAFETY ARE DRIVEN FROM EXECUTIVE LEVEL



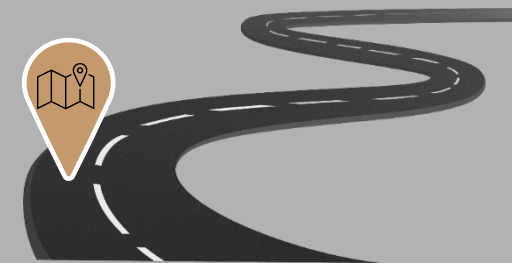
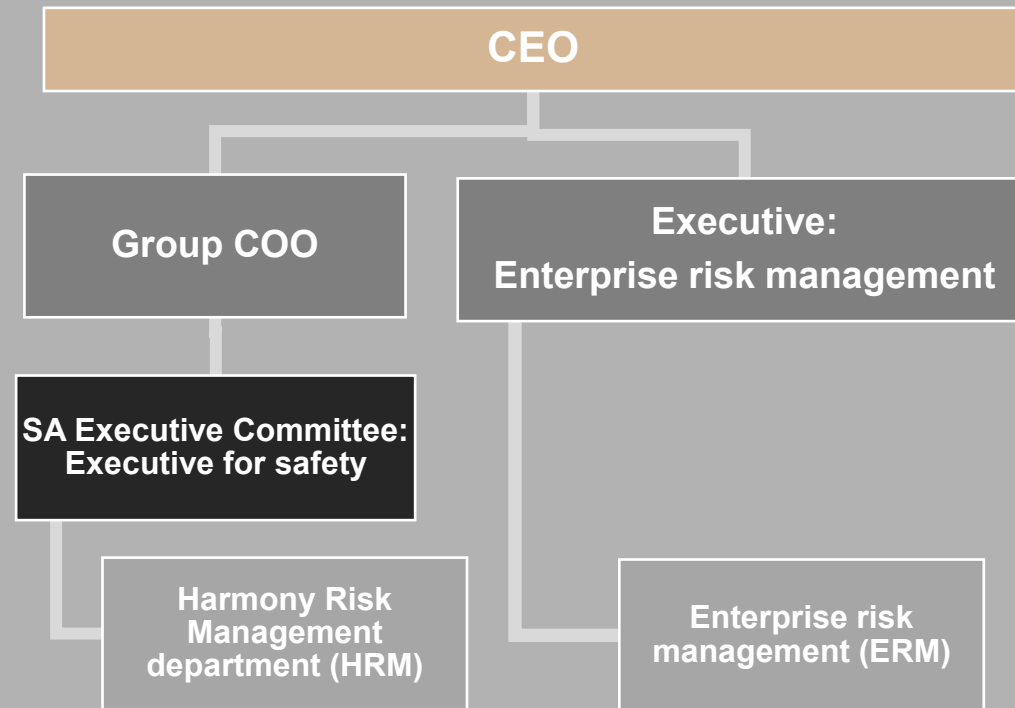
Risk management and safety driven from the top



Harmony risk management ensures implementation of safety strategy at operational level



Enterprise risk management division oversees holistic business risks





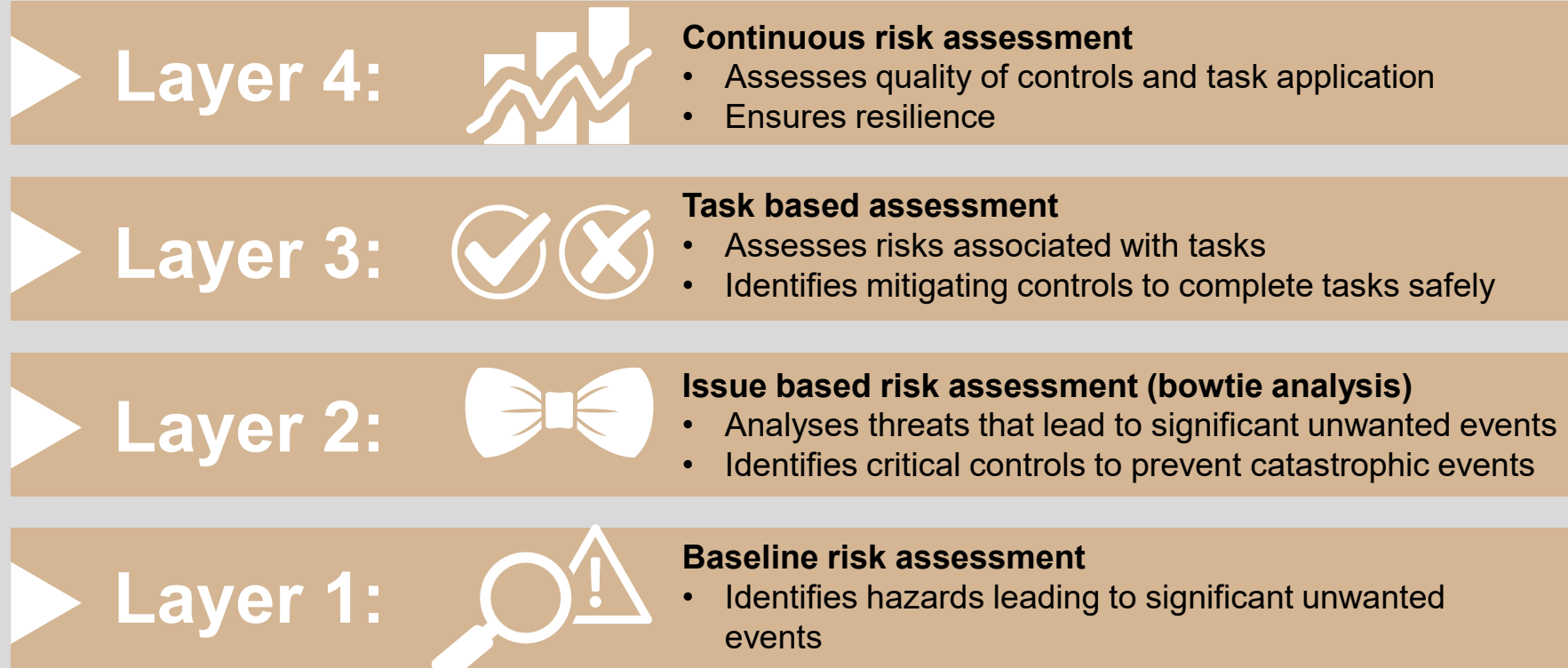
RISK MANAGEMENT

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RISK FORESIGHT THROUGH EMBEDDED RISK MANAGEMENT

OUR FOUR-LAYER Risk management approach



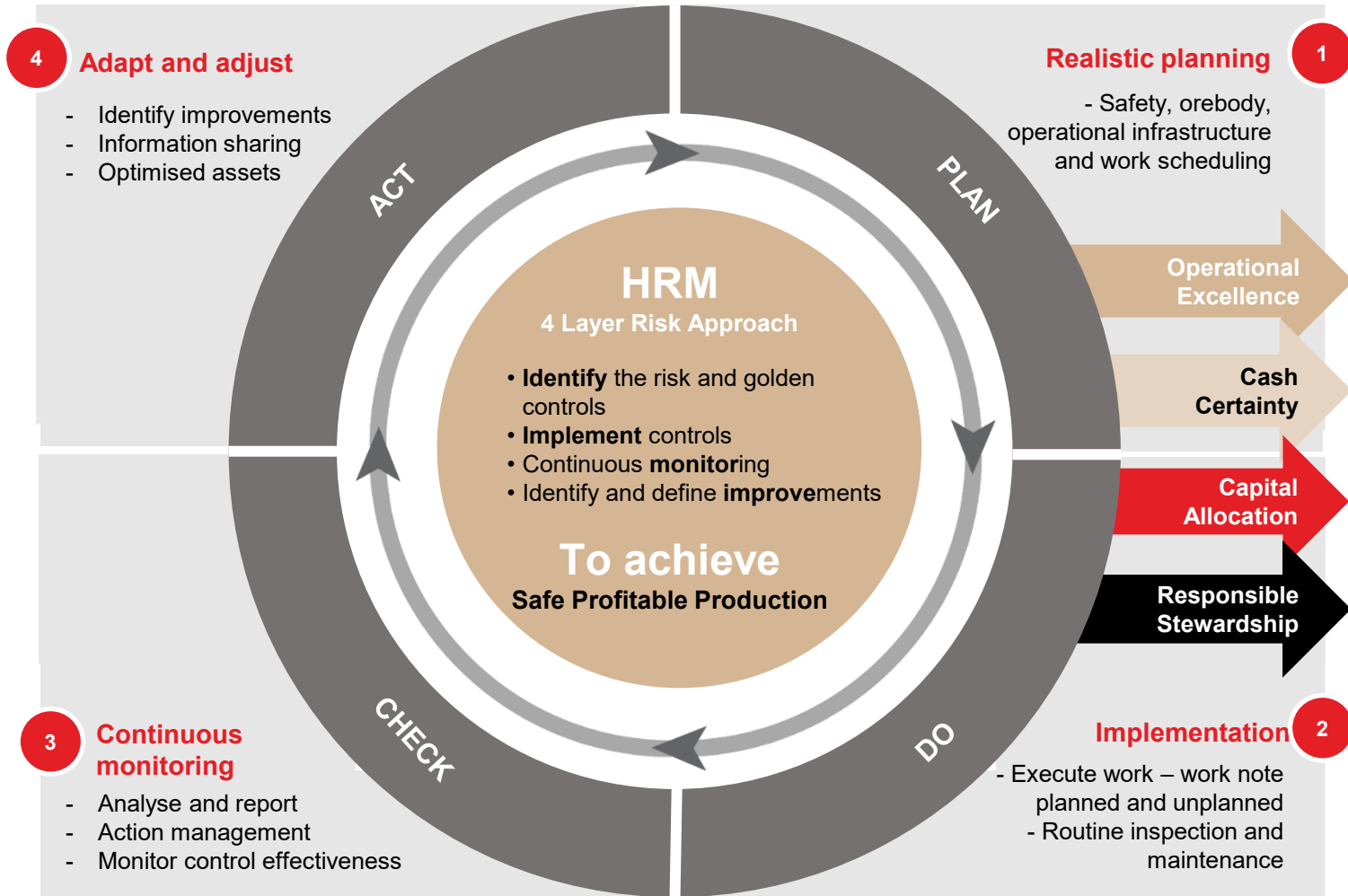
Incorporated ICMM*
loss of life prevention
guidelines as best practice



*International Council on Mining and Metals

RISK ADAPTED BUSINESS PROCESS MODEL DELIVERS RESULTS

Continuous Improvement



Process model ensures:

- ✓ The four-layer risk management process is embedded in the business model
- ✓ Improved efficiencies
- ✓ Improved incident management
- ✓ Reduced variation and improved predictability
- ✓ Eradication of uncontrolled events



DIGITISATION AND MODERNISATION

REAL TIME DATA = PROACTIVE DECISION MAKING

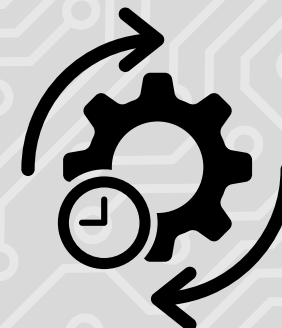
- Multi disciplinary digital platform including digitized risk model and data collection methods
- Automated golden control and critical control management
- Data Integration to create meaningful leading indicators



- Interactive live dashboards
- Deficiency escalations to senior management



- Improved information flow to and from underground working places
- Real time information available
- Granular data to analyse and take informed decisions



“ A proactive safety and risk environment means that critical information is provided in real time, ensuring

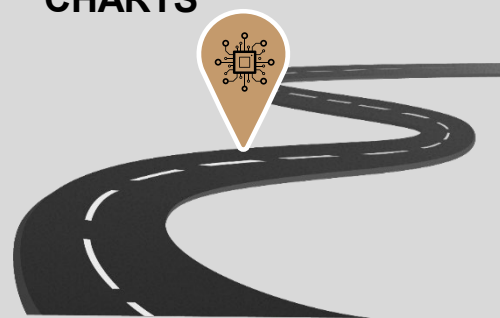
PROACTIVE

decision making to mitigate risks. ”



INDUSTRY LEADING DIGITAL PLATFORM

BESPOKE SOLUTION TRANSFORMING THE WAY WE MINE



DIGITISATION – A WINNING SOLUTION

BEFORE

Risks reported in silos

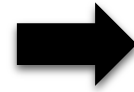
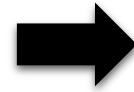
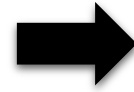
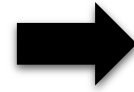
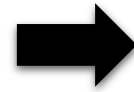
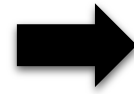
Manual data capture

Fewer data points to analyse

Actions manually generated

Information lagging/reactive

Manual critical control management and identification



AFTER

Transparent and integrated risk reporting

Automated digital solution

Millions of detailed data points for richer analysis

Automated action allocation

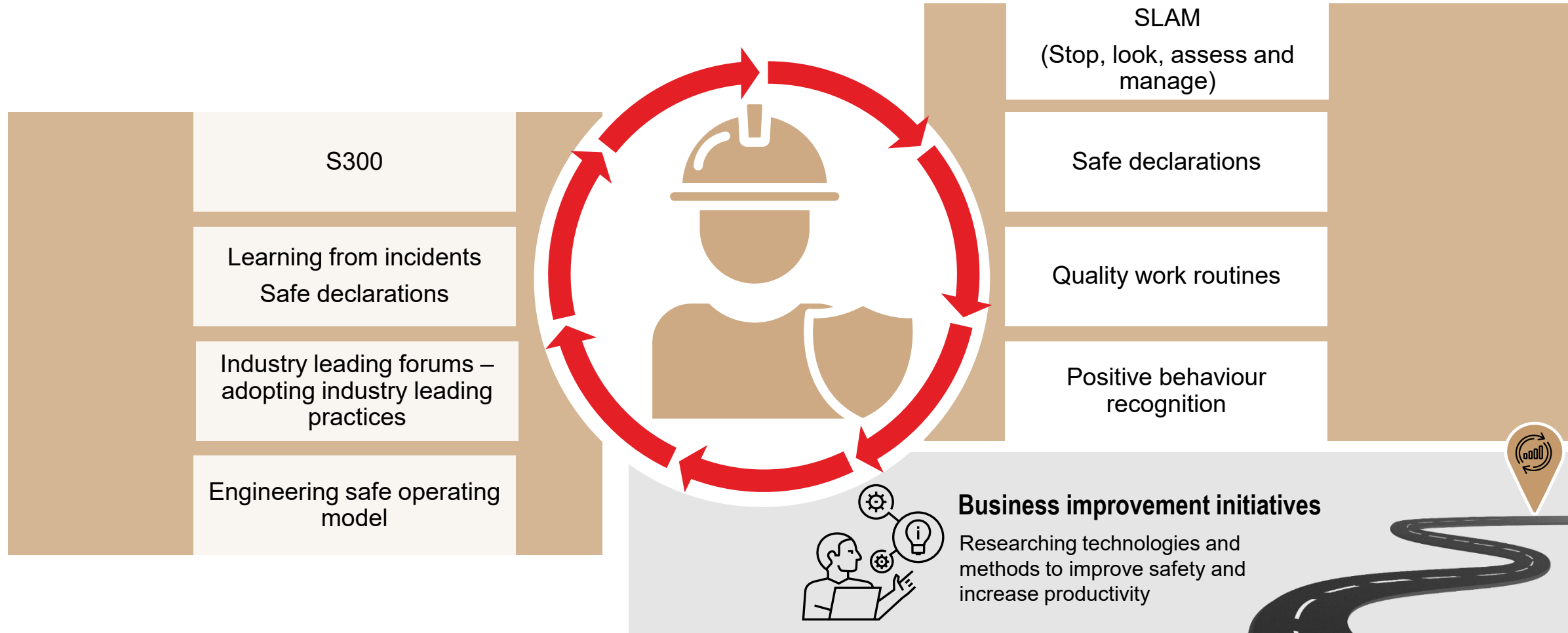
More leading indicators (proactive)

Automated critical control management & identification



RESILIENCE THROUGH CONTINUOUS IMPROVEMENT

CONTINUOUS IMPROVEMENT STRATEGY



EFFECTIVE AND CONTINUOUS TRAINING **INCREASES IMPACT**

Continuous risk management
training strengthens
effectiveness of implemented systems

Driven by Harmony
risk management department

Compulsory, comprehensive and
continuous

**Risk management
training**

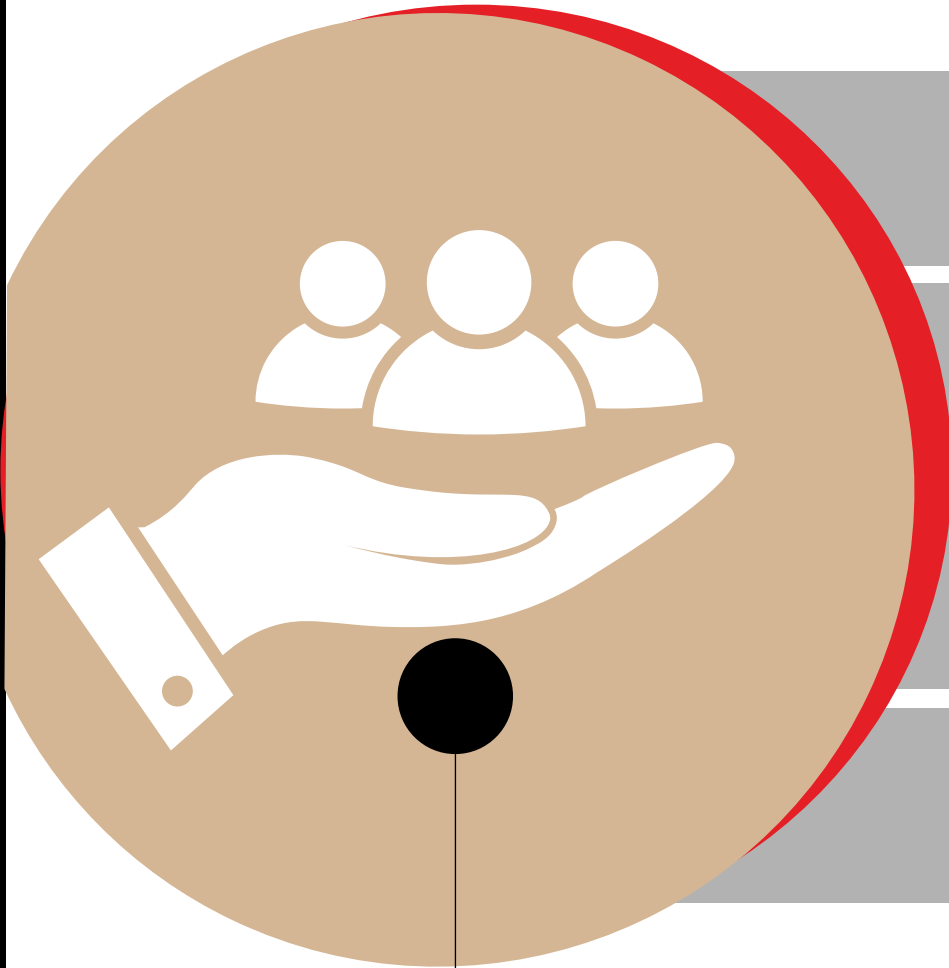


Focus on tools and processes
to manage risks

System and task related training



ACTIVE SAFETY LEADERSHIP AND CULTURE



Health and safety days

Crew satisfaction surveys

Risk propensity assessments

Thibakotsi team training

Visible, felt leadership



PARTNERING WITH STAKEHOLDERS: HARMONY GOLD TRIPARTITE TO CREATE A PROACTIVE SAFETY CULTURE

IMPROVING

EMPLOYEE-SAFETY RELATIONSHIP



High-level Harmony Gold Tripartite (HGT) fully established:

We have a collective strategy mapped

- Share common goal of safe and sustainable Harmony
- Embody a culture of trust, mutual care, dignity and respect for all
- Support corrective, proactive and creative action
- Embrace collective knowledge of health and safety
- Established dedicated working teams to address critical issues

Tripartite engagements include:



EMPLOYER / MCSA



REGULATOR / MHSC



ORGANISED LABOUR



INDEPENDENT
FACILITATOR



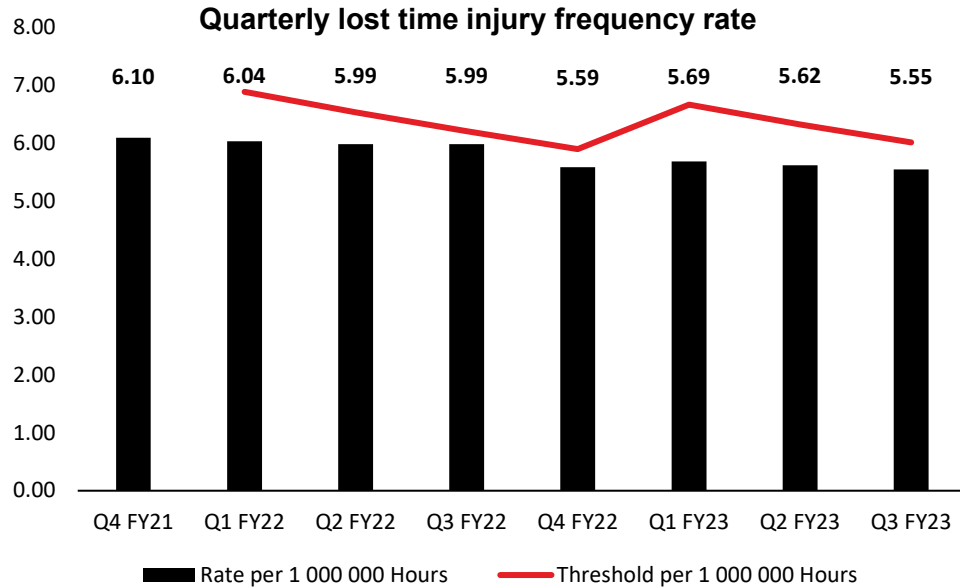


ANNEXURE

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SAFETY AND HEALTH PERFORMANCE



Safety

- South African operations recorded second successive January and February loss of life free months
- 7 out of 9 underground operations have 1 million fatality free shifts status
- Masimong 3 million loss of life free shifts achievement in Q3
- Joel underground mine achieved zero lost time injury in Q2
- Great Nologwa operations achieved more than 800 white flag days

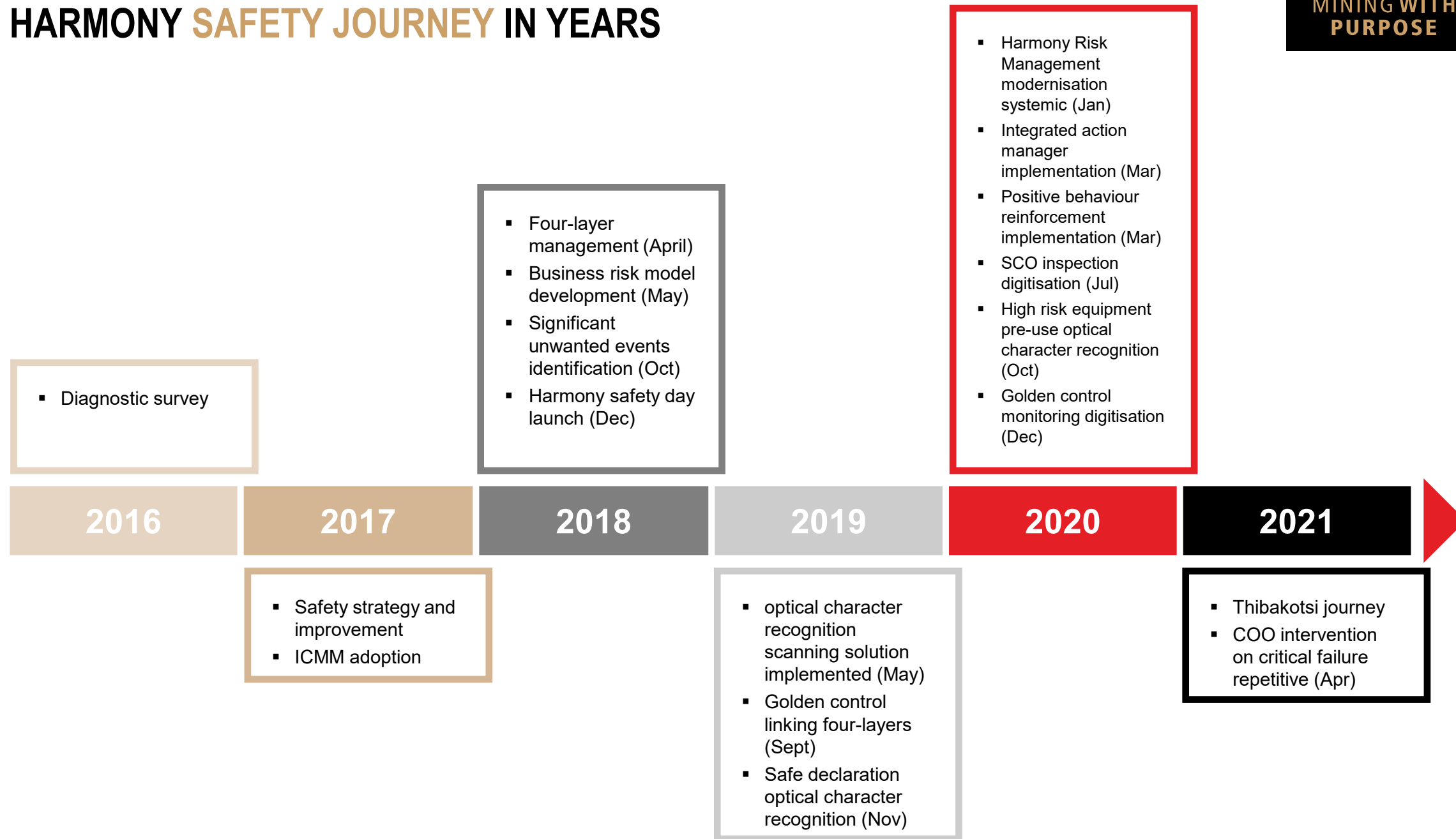
Operations achieving zero harm



Consecutive White Flag Days (100+)

Joel	100
Doornkop	200
Nologwa Gold	800
Free State Surface	500
Vaal River Surface Sources	700
Nufcor	3100
Kalgold	100
Mine Waste Solutions	100
South Uranium	300
Kalgold Pit	200
Saaiplaas	400
West Wits Surface Operations	100
Kusasaletu	500
Savuka Gold	100

HARMONY SAFETY JOURNEY IN YEARS



THE STORY IN THE GLOSSARY: RISK MANAGEMENT STRATEGY

Risk management approach	Through integrated risk management, we are able to identify and assess a broad spectrum of risks that may have an impact on our strategic objectives. It gives us the needed risk foresight and ensures that we are able to identify mitigating controls to those risks and protect our organization from uncertainty, whilst increasing the probability of success.
Business process model	It maps the business processes from as early as planning to execution stage. At Harmony, this was developed to ensure that the safety strategy and risk management are embedded right from the start, through to all business stages to deliver the desired results.
Significant unwanted events	These are events/threats/catastrophes which if uncontrolled or unmanaged will lead to harm, loss of life and/or loss of production, with consequences ranging from reputational, social, regulatory, financial etc. Importantly, these are identified through the different steps of the four-layer risk management approach.
Hazards	Risks identified through various inspection methods in the work places. At Harmony, hazards are ranked in order of criticality, with A hazards being the most critical and must be rectified within 24 hours.
Critical controls and golden controls	Having identified significant unwanted events and hazards, it is prudent to also identify controls that must be in place and effective to mitigate those risks. There are three categories of controls: bronze, silver and gold. Each control type has a response and management/supervisory accountability specification. Golden controls are the accountability of senior management. When a golden control is not in place or not working effectively work cannot continue.
Specialists services inspections	In the working environments, there are a number of subject matter experts/specialists that need to make routine visits to ensure that the necessary standards are upheld. These include rock engineers, safety officers, occupational hygienists etc. The routine is that they need to inspect the work place and issue their recommendations on identified hazards for teams to action in the work places.

THE STORY IN THE GLOSSARY: DIGITISATION AND MODERNISATION

Harmony's digital platform

It was specifically developed to support the safety strategy and improvement plan. A contributing factor to the reactive nature of decisions within the workplace was the lack of critical information to make proactive decisions. A new platform had to be developed to deal with the flow of information to and from the work places and to also deal with the pace/speed with which that information is available to the relevant stakeholders within the organization. The vision was to plan and monitor risks within the production environment and focus on achieving production targets safely.

Harmony's integrated digital platform incorporates:

- Production planning, booking and reporting
- Supporting services audit/inspection data
- Continuous risk assessment and critical control monitoring and reporting
- Action management in all areas
- Measuring key processing indicators overtime against the required performance

THE STORY IN THE GLOSSARY: DIGITISATION AND MODERNISATION

Optical character recognition (OCR)

This is the hardware of the digital platform. Also very critical to the information flow. It uses scanners to process the physical form of a document.

At Harmony this system is used to capture all the information from a number of different sources that visit the work places. Sources include, specialists, employee pre-use inspection forms, etc. Importantly – all inspection forms and documents in workplaces at Harmony have been converted into OCR forms.

Once an inspection is done in a particular workplace, the forms are scanned using the OCR scanner and uploaded to the digital platform. The risk and production information is therefore available in a short space of time from underground to surface.

Integrated action manager

This is a module within the digital platform. It tracks all the actions identified during different inspections, and allocates them into the particular workplaces, and supervisors.

The main output of the integrated action manager is an email, mobile phone and the work note.

Work note

This is an out put of the digital platform. This tool ensures that all critical information and golden controls are flagged and reported to the underground teams daily. It is like a weather report, detailing operational information critical to employees before they enter the work place. This is printed by the team leaders before the shift in the morning and in the afternoon.

Critical information on the work note includes:

- Seismic rating. It is updated daily with frequent interfaces from Institute of Mine Seismology (IMS) to the platform to ensure that it stays current
- Operation and workplace name, team leader and miner information
- Radiation exposure, safety risk ratings
- Instruction to the team
- Hazards observed
- Service department inspection and recommendations
- Planned activities for the day
- Planning recommendation

Humanistic culture transformation programme

Harmony's safety strategy includes active safety leadership and culture. Following a comprehensive diagnostic survey in 2016, we adopted a dual risk axis business transformation model – acknowledging the importance of a coherent transformation of both systemic (risk management) and humanistic (culture) transformation in achieving our strategic goal – moving from a reactive to a proactive safety culture.

The focus of the humanistic culture transformation programme is to equip and empower all employees and prevent accidents through numerous initiatives designed to proactively drive safe behaviours and improve employee relationship with safety. These initiatives are structured around three key drivers – how leaders develop themselves, develop others and how they take everybody along. It will manifest itself in the belief that zero harm is possible and where employees at all levels live the company values and experience high levels of hope, mutual trust and respect.

The programme was first rolled out in 2021 on a 36 month duration to 2024. The focus is now on sustainability and continuance of the work beyond 2024. The programme is being rolled out as “Thibakotsi”, a Sesotho name for “prevent accidents”.

THE STORY IN THE GLOSSARY: CONTINUOUS IMPROVEMENT

S300

An incentive programme that supports both safety and production. Underground production teams are required to achieve average 300m² per month without safety incidents. The most productive team might not be the safest team. This is why we developed S300 to incentivize both safety and productivity combined. The initiative was not given until Harmony was sure that all tools the teams need to support safe production were all available.

SLAM

Stop, look, assess and manage. This initiative was rolled to ensure that everyone in the work places, is able to first assess the work they about to do, the equipment they will use, the environmental conditions they are to conduct the scheduled work in. Following all the assessments employees are empowered to take the necessary actions to manage the risks before work can commence. If conditions remain unsafe, then work cannot continue until safety is restored and employees have the right to withdraw from unsafe environments.

Visual risk indicator

This works hand in hand with SLAM. A visual risk indicator is a board that stands at the entrance of the work place detailing the conditions within the work place. If the work place is safe - the green colour is shown. If the yellow colour is shown, actions are needed to rectify/address the risk before work can continue. The red colour means no entry in the work place.

Learning from incidents

Harmony has a formalized process to facilitate learning from incidents. Investigation and analysis of an incident is done against Harmony standards. All investigations are conducted by a team made up of lead investigator, subject matter expert, HR leader, behavioral analyst and an independent facilitator. Once completed, The group learnings are then escalated to the executive and finally, lessons will be disseminated to all operations. Such investigations are conducted on all incidents and near-misses.

THE STORY IN THE GLOSSARY: CONTINUOUS IMPROVEMENT

Industry forums and adoption of leading practices	<p>Harmony has a formalized process of adopting industry leading practices that will reduce the risk of safety. We also contribute to industry forums by sharing our innovations.</p> <ul style="list-style-type: none"> • The steel netting industry practice initiated in such forums. • Harmony is involved in a number of industry safety forums one of which is the fall of ground action plan.
Work routines	<p>Clearly defined and standardised work routines ensure better planning, increased predictability and consistent results. Harmony has defined, formalized and standardised work routines to support safe work.</p>
Pre-use inspections and safe declarations	<p>We have developed a number of pre-use inspection checklists to ensure that before any work can continue. The necessary inspections are carried out proactively to ensure the safety of the machines, equipment and the environment before they are declared safe to use.</p>
Business improvement	<p>Harmony has a dedicated central department that drives business improvement initiatives across the whole group. The department is tasked to drive research into technologies and processes that will improve safety and production across group.</p> <ul style="list-style-type: none"> • Notable current research and trials include man-less boxhole drilling technology underground. This reduces human interference and thereby reduces the probability of injuries. • The shaft call factor improvement project also currently underway is aimed at enhancing productivity • Wire the mine project is aimed at sending Wi-Fi connectivity to the stope/working areas



THANK YOU

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CONTACT DETAILS: HARMONYIR@HARMONY.CO.ZA