



Implats – Impala Rustenburg operations

# FoG Safety Stats Analysis

Presentation by: Learning Hub Falls of Ground Team

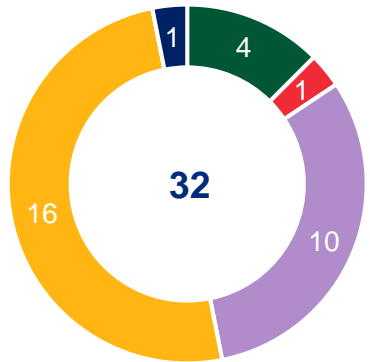


**MINERALS COUNCIL**  
SOUTH AFRICA

# Fatalities | 22 June 2026



## TOTAL FATALITIES PER CLASSIFICATION



- Fall of ground
- Machinery
- Transportation & mining
- General
- Conveyance
- Electricity
- Miscellaneous

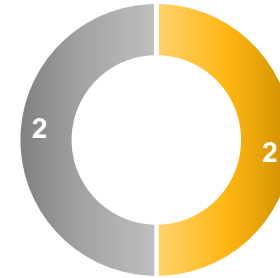


Fall of Ground  
**67%**

Improvement  
compared to  
12 in 2025



## FoG FATALITIES PER COMMODITY



■ Gold ■ Platinum



Gold

↑ 80% improvement  
compared to 10 in 2025



Platinum

↓ 100% regression  
compared to 1 in 2025

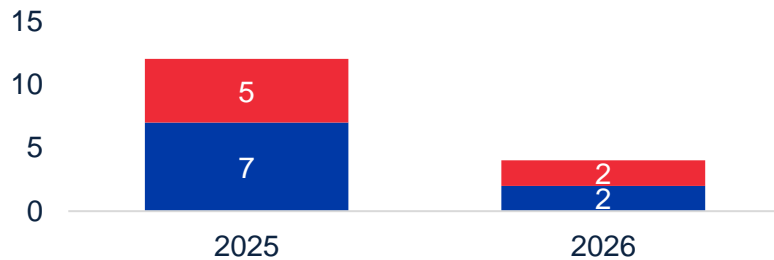


Manganese

↑ 100% improvement  
compared to 1 in 2025



## CLASSIFICATION OF FoG FATALITIES



■ Gravity ■ Seismicity (Rockburst + Strain burst)



## FoG FATALITIES BY ACTIVITY

Fatalities occurred during entry examination and making safe and support installation.



## FoG FATALITIES BY REGION

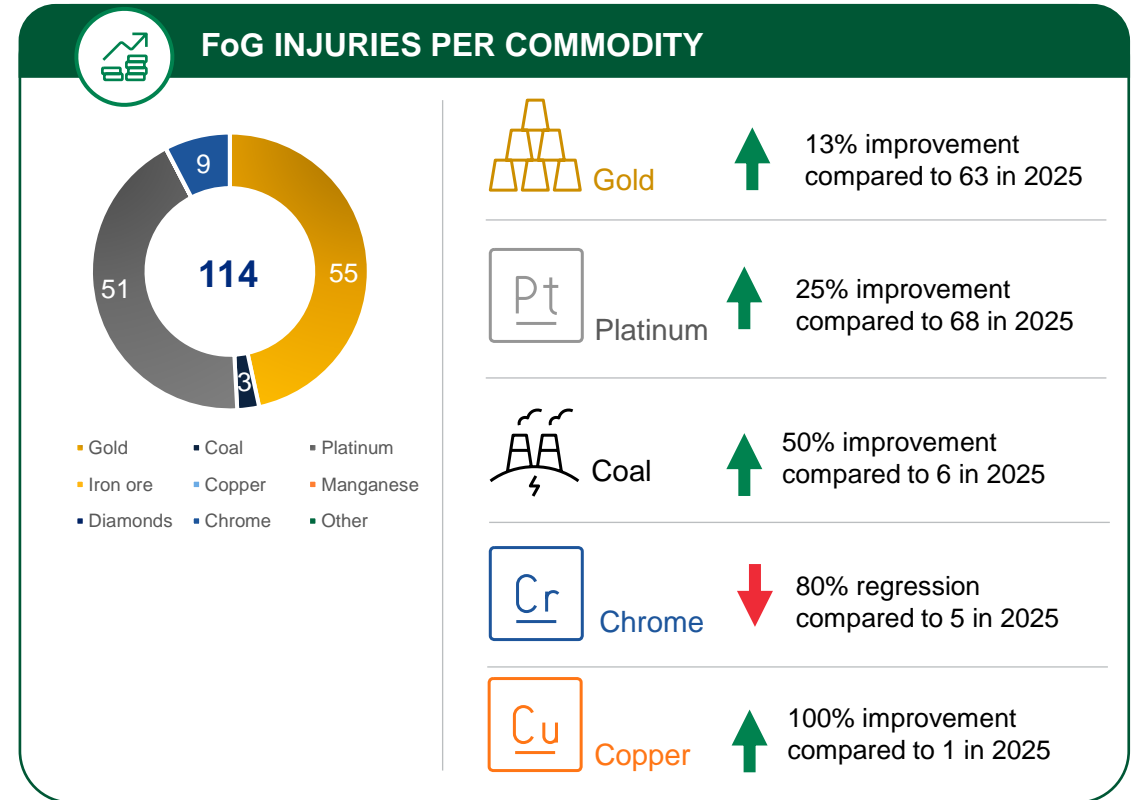
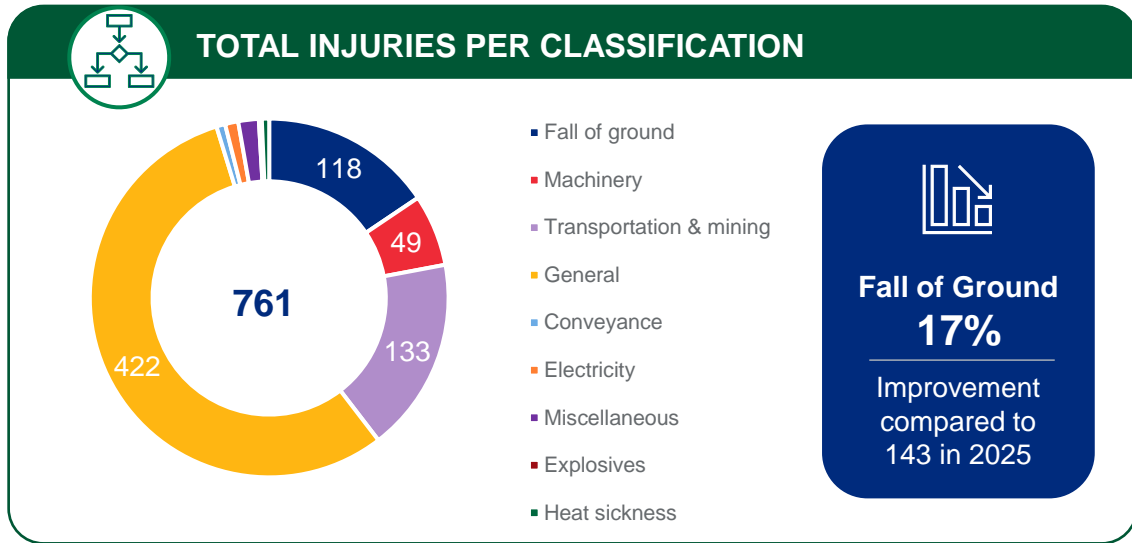


Rustenburg: 2

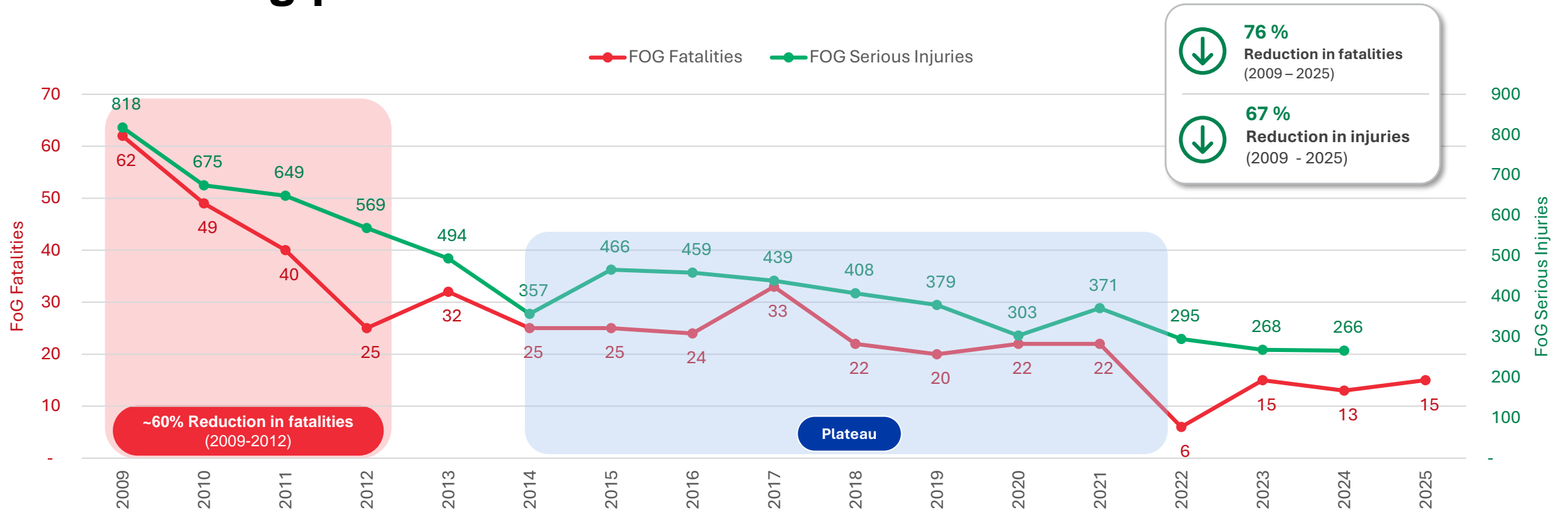


Klerksdorp: 2

# Injuries | 22 June 2026



# FoG leading practices and initiatives



## Our Journey to Zero Harm



# Analysis of the 2021 to 2025 falls of ground fatality trends

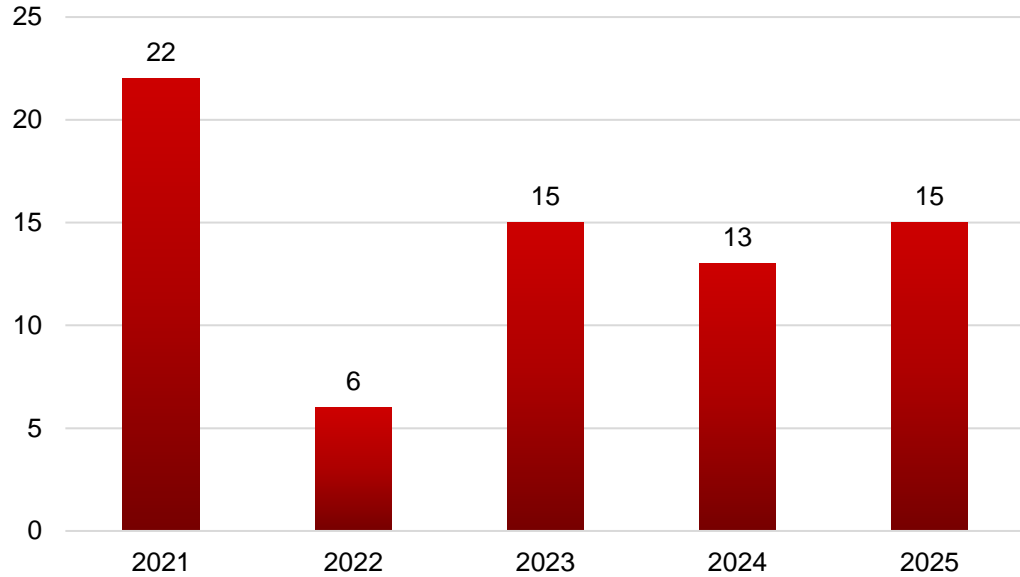
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# FoG Fatalities | 2021 to 2025

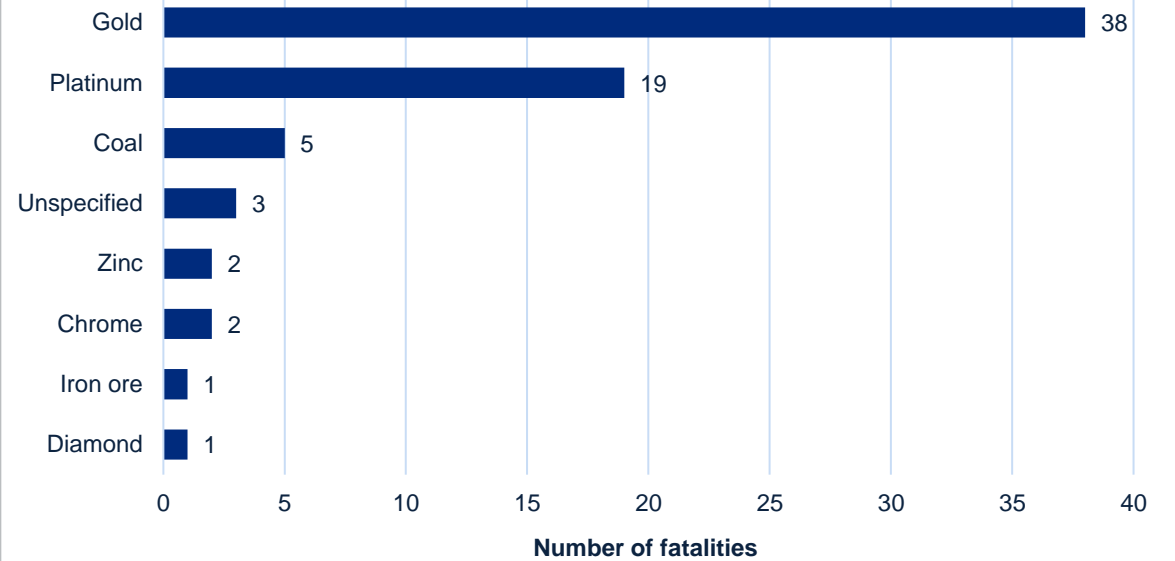


**TOTAL FOG FATALITIES: 71**  
(2021 to 2025)



## COMMODITY

Gold has noticeably higher number of fatalities  $\approx$  54%  
(2021 to 2025)



- After 2022, fatalities rise again in 2023, then stabilise with moderate fluctuations in 2024 and 2025.
- The total never returns to the high level of 2021, suggesting some sustained improvement, but performance is inconsistent.

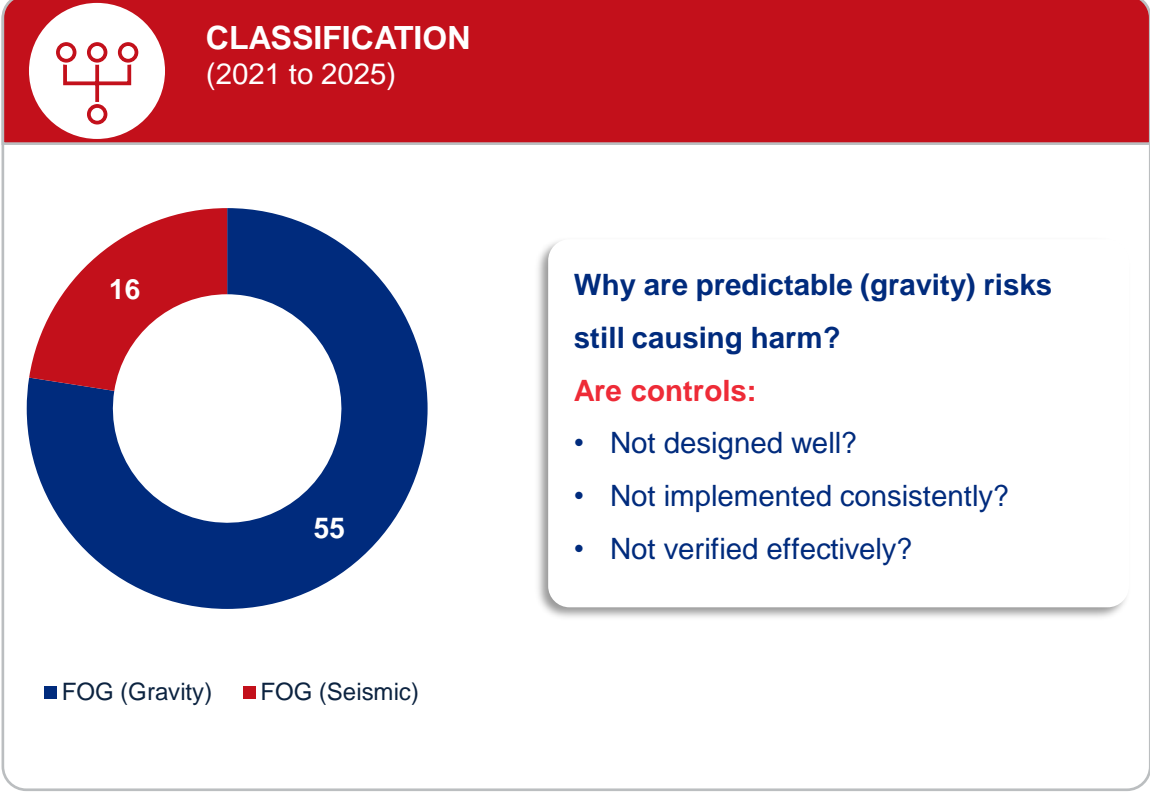
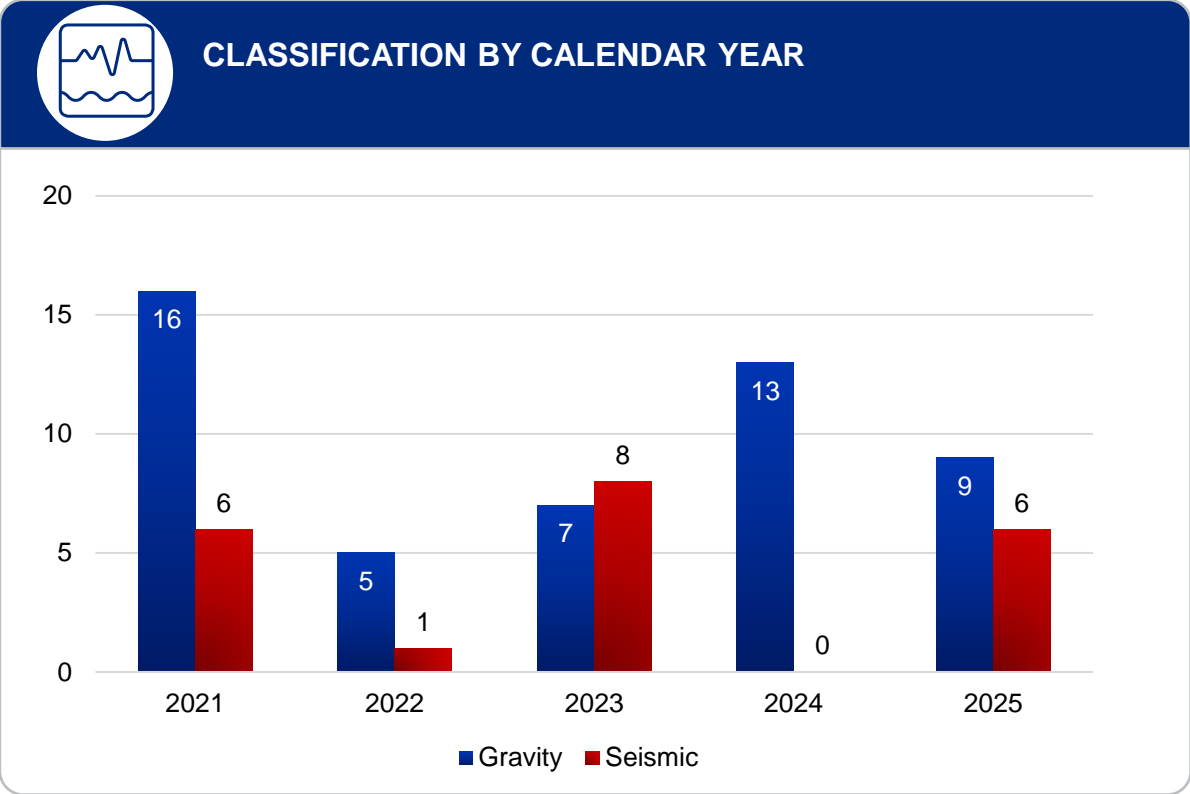



## GOLD SECTOR ACCOUNTS FOR MORE THAN HALF OF THE FATALITIES.

- High stress environment.
- Heavy reliance on manual support & barring.
- High worker exposure at face.

# FoG Fatalities by Classification | 2021 to 2025

Most fatalities are occurring in conditions we should be able to predict, control, and prevent — not random events.

- Gravity-related fatalities dominate – indicating failure in routine ground control practices rather than unpredictable hazards.
- Seismic risks are less frequent but more unpredictable.

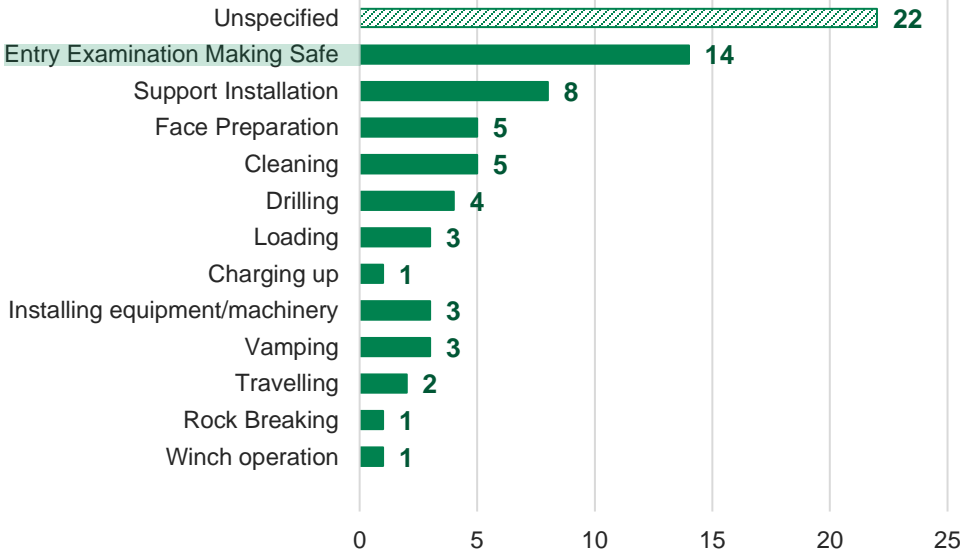
# FoG Fatalities by Activity | 2021 to 2025



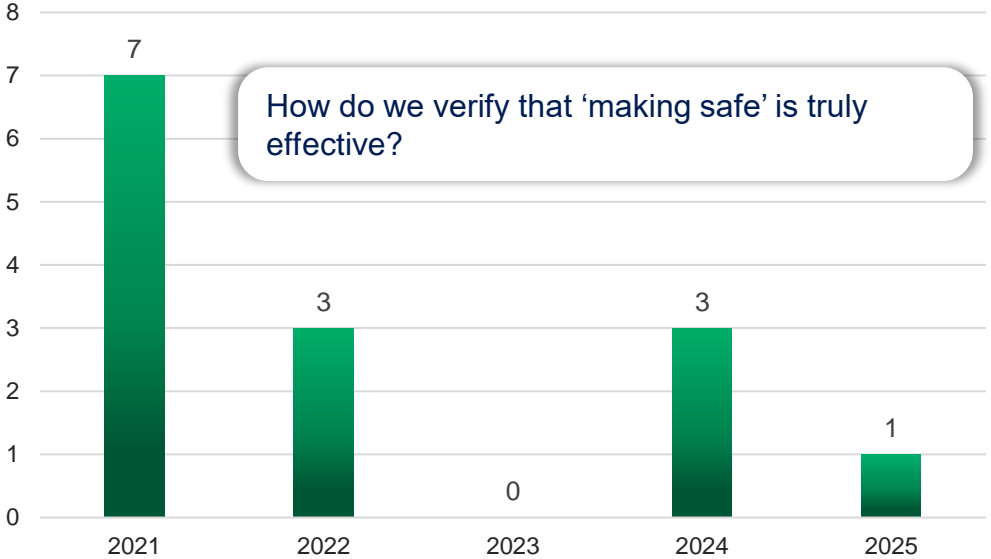
## ACTIVITY

Highest fatalities occur during entry examination and support installation → we are failing at the moment we declare workplaces safe.

Total by activity



Activity by calendar year



How do we verify that 'making safe' is truly effective?



**ENTRY EXAMINATION AND MAKING SAFE INCLUDES:**  
Examination, Inspection, Safe Making and Barring SAMRASS Codes

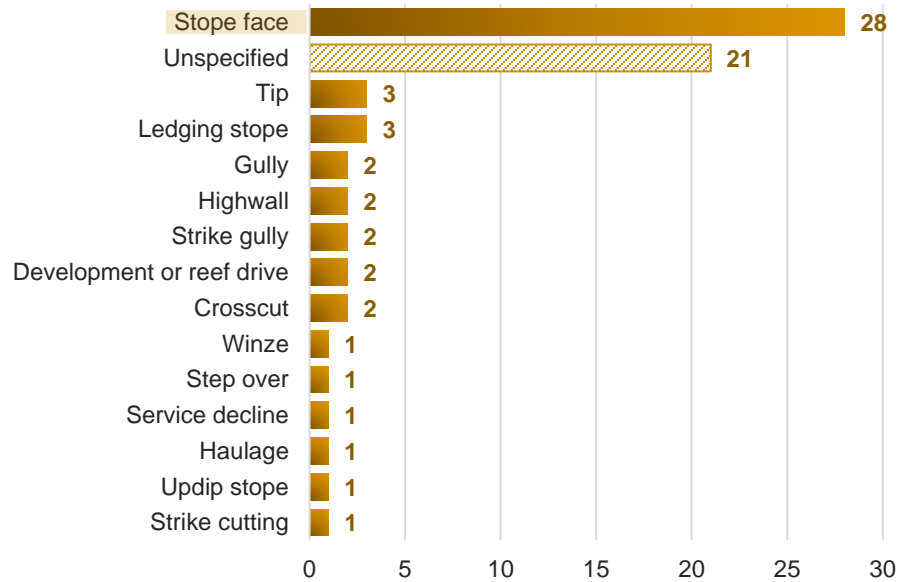
# FoG Fatalities by Location | 2021 to 2025



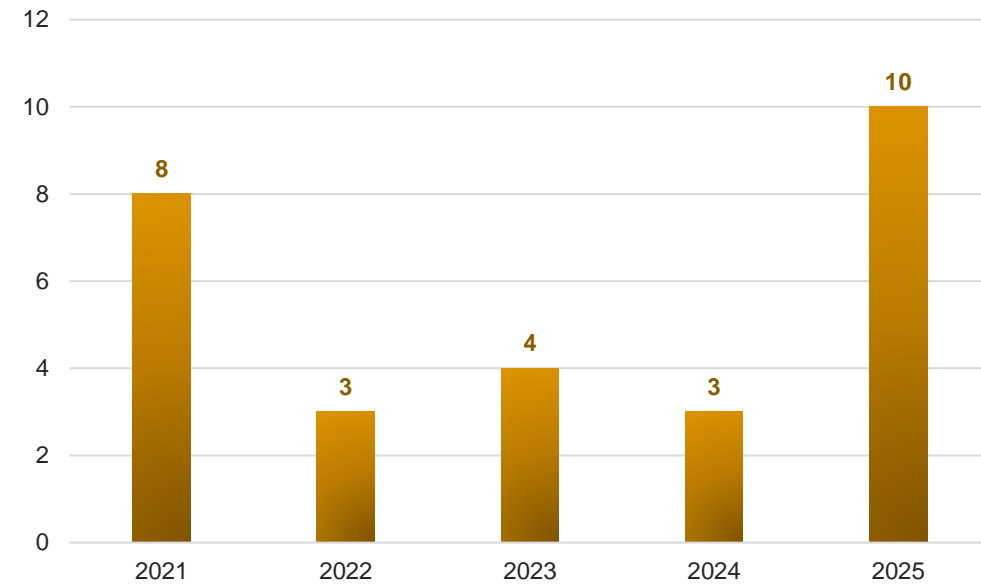
## LOCATION

Stope face has noticeably higher number of fatalities  $\approx$  40%

Total by location



Stope face by calendar year



The stope face is the primary risk area:

- High stress zone
- Active drilling/support/cleaning

What additional controls are required at the stope face?

# FoG Fatalities by Occupation | 2021 to 2025

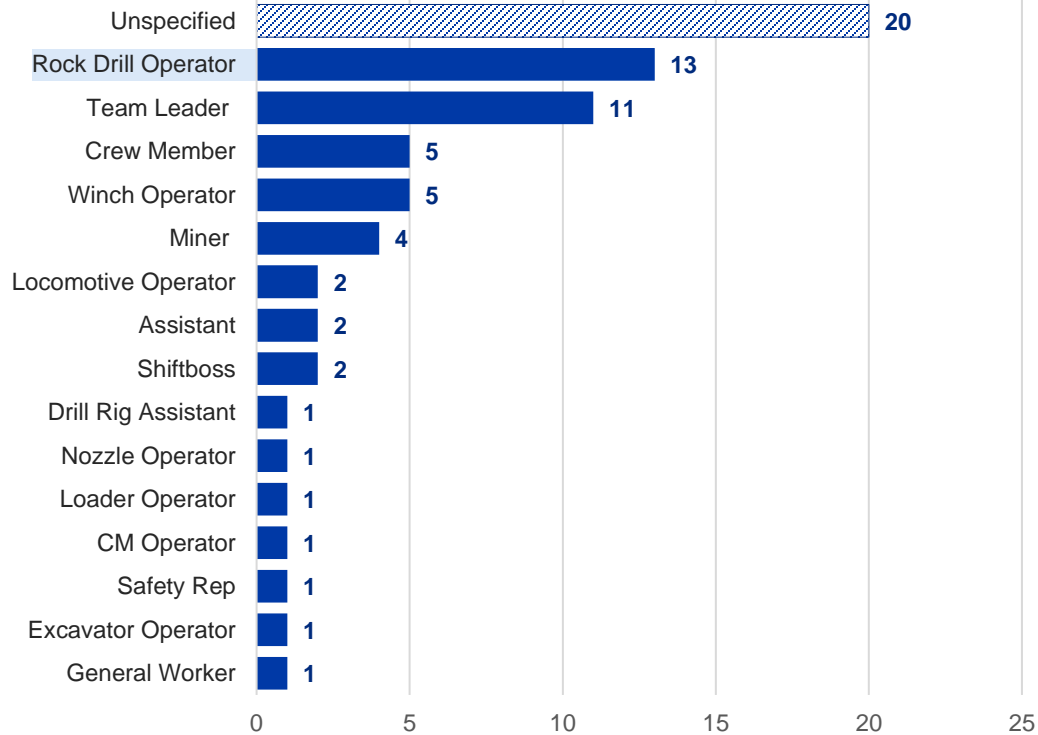


**Rock Drill Operators and Team Leader** are highly exposed, likely due to their proximity to unsupported rock and active drilling zones.



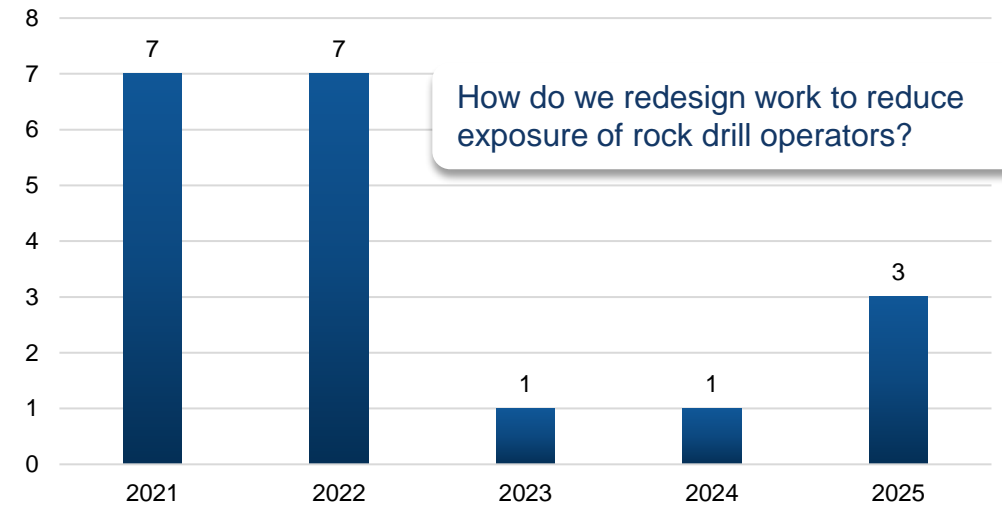
## OCCUPATION

Rock Drill Operator has noticeably higher number of fatalities.



## BY CALENDAR YEAR

Rock Drill Operator fatalities by calendar year

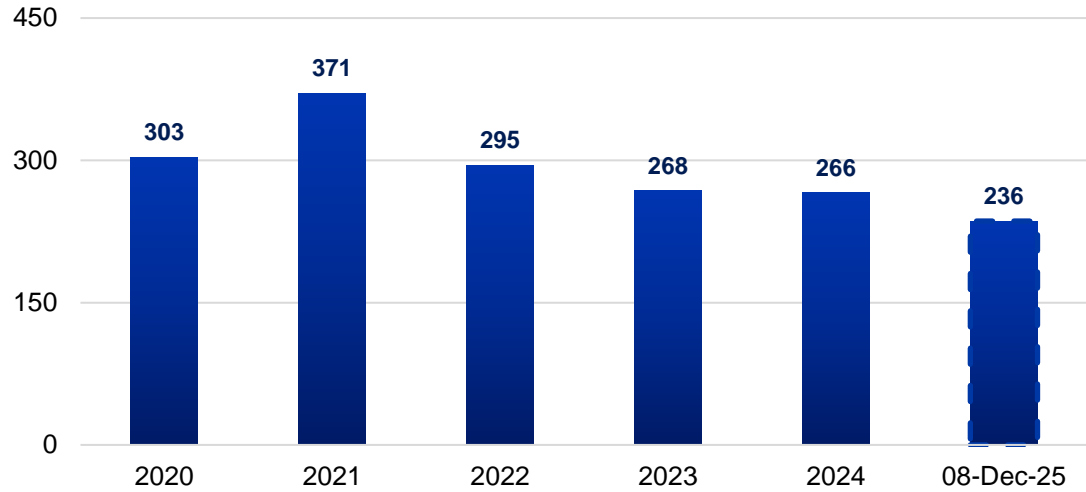


Rock Drill Operators account for the highest number of fatalities across all years, highlighting the need for targeted controls and risk mitigation.

# FoG Injuries | 2021 to 2025



## TOTAL FOG INJURIES

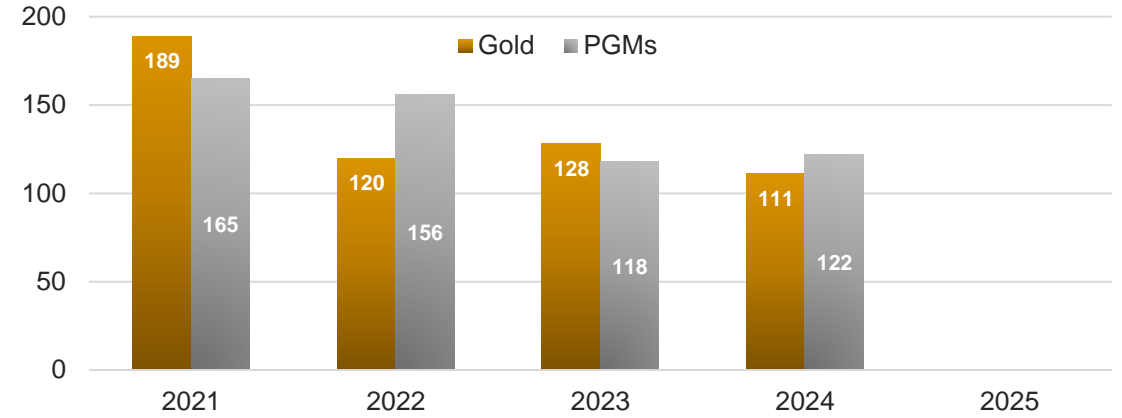


After a spike in 2021, there's a consistent downward trend, suggesting improved safety measures or interventions since 2022.

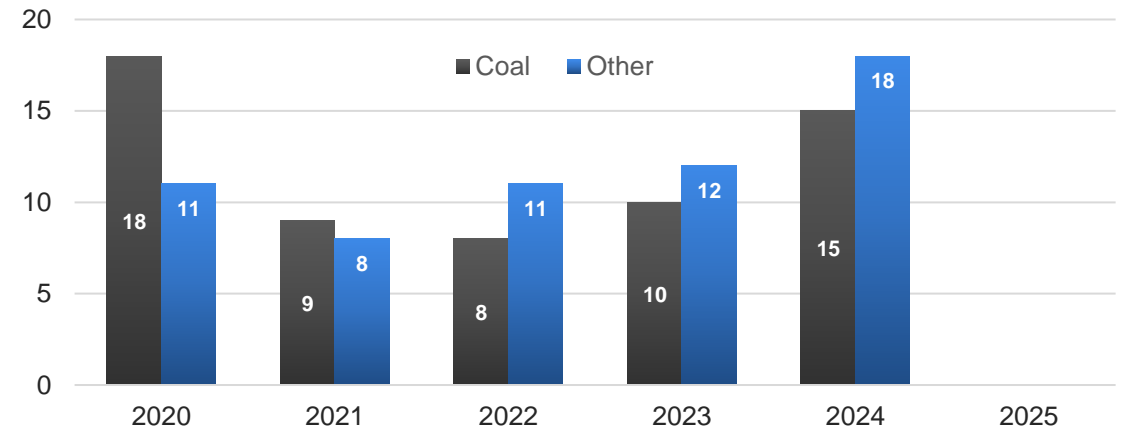


- Gold and PGMs account for most FoG injuries, but both show significant improvement since 2021.
- Coal and Other remain negligible contributors, though slightly rising in recent years.

## Total FoG Injuries: Gold and Platinum Commodities



## Total FoG Injuries: Coal and Other Commodities



# Why Harm Persists

Most events are predictable and preventable, yet controls are not consistently effective. FoG Fatalities and injuries are not primarily a geotechnical problem - they are an exposure management and control discipline problem.



## THE PROBLEM

**Fatalities persist and fluctuate.**

CONCENTRATED IN:



Gravity-related events



Entry examination and support installation



Stope face



Rock drill operators and Team leaders



## THE INSIGHT

**Most incidents are predictable.**



Routine



Repeatable



Not “black swan” events



## THE GAP

**Controls exist but fail in execution.**



Not consistently applied



Not verified



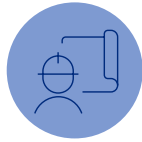
Not leading behaviour



**What leading practices would have changed these outcomes?**

# Our Objective

## TO ELIMINATE FALL OF GROUND-RELATED HARM BY:



### 1 Eliminating Exposure (Engineering)

Preventing people from being in line of fire through design, isolation and remote solutions.



### 2 Ensuring Ground Stability (Support systems)

Ensure ground is supported and stable before people enter or work.



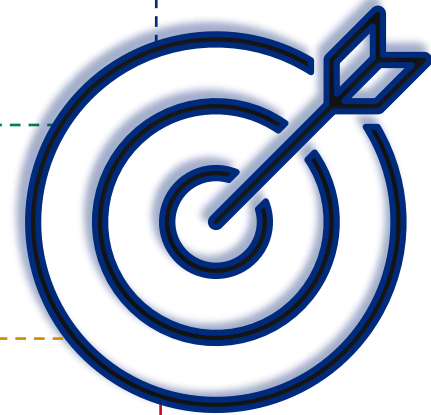
### 3 Driving disciplined execution (competent people, strong supervision and accountability)

Embed and enforce procedures, roles and behaviours that keep people safe.



### 4 Enabling proactive risk management (Clear triggers and rapid response systems)

Use real-time monitoring, triggers and withdrawal protocols to respond before incidents occur.





Anglo American Platinum – Dishaba Mine

# #MiningMatters

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