



Siyanda Mine



FOGAP Day of learning

Breakthrough towards zero FOG fatality

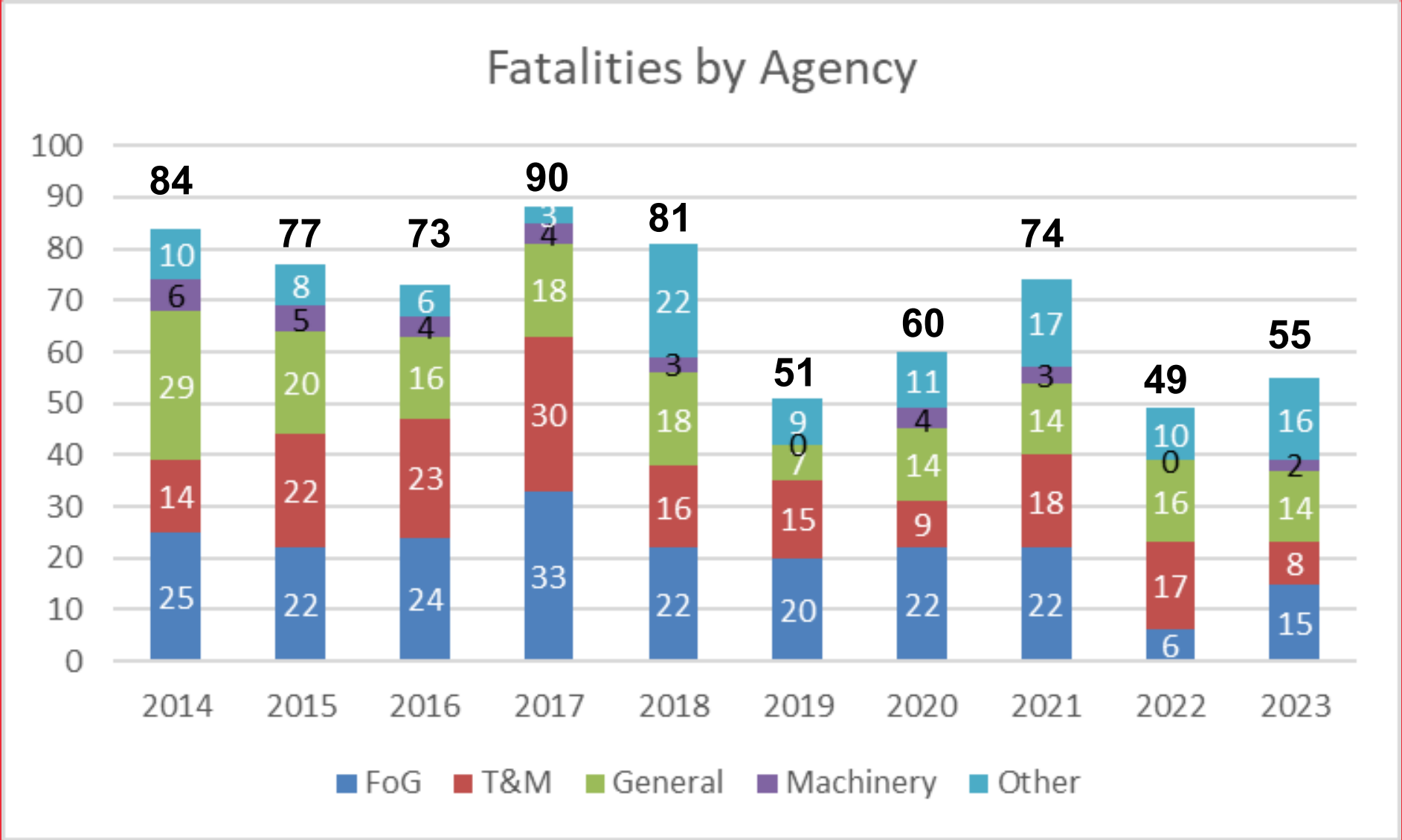
Mzila Mthenjane, CEO
Minerals Council South Africa

Emperor's Palace, 5th April 2024

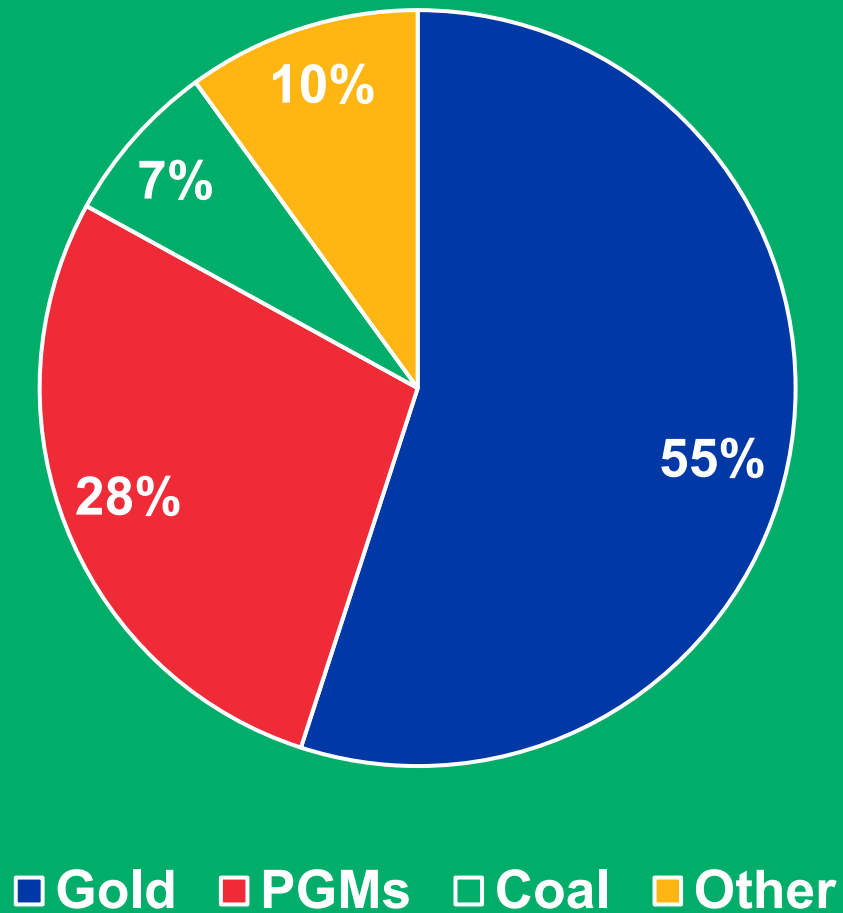


Addressing a leading cause of fatalities

The South African mining industry is proactively addressing a major source of fatalities and injuries.



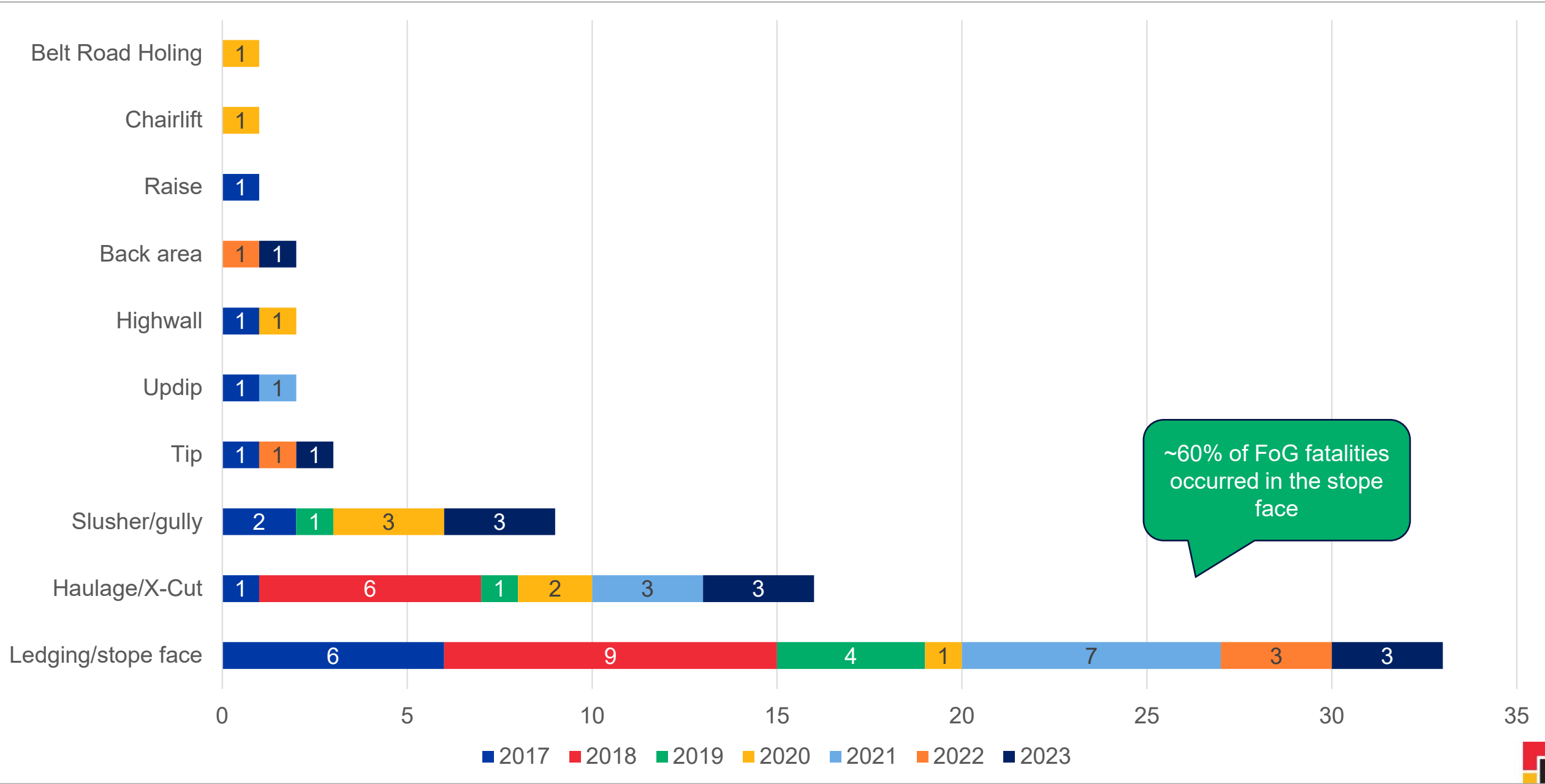
Where are the high-risks areas?



Key considerations

- U/G Operations
- Mechanization; Bord + Pillar
- Age of operations
- Depth of workings
- Technology application

FoG Fatalities Classified by Location : 2017 to 2023





Addressing a leading cause of fatalities

- **July 2021** - the Minerals Council Board and CEO Zero Harm Forum adopted the Elimination of **Falls of Ground Action Plan (FOGAP)** to deliver our ambition of **zero fatalities and injuries**.
- **2022** - the industry reported 6 FOG-related fatalities, the lowest on record and a **73% reduction** from year before.
- The industry has made **significant progress** in reducing FOG-related fatalities in the past **two decades**.
- About **60% of FOG-related fatalities** in the past six years occurred in the **stope fac**

What is the Fall Of Ground Action Plan - FOGAP

2021 - Rock Engineering Technical Committee (RETC) of the Minerals Council, supported by the South African National Institute of Rock Engineering (SANIRE) was mandated to develop the Action Plan to eliminate FOG fatalities.

The FOG Action Plan consists of **six pillars**.

Adoption of leading practices

Research and development

Skills development

Policy issues

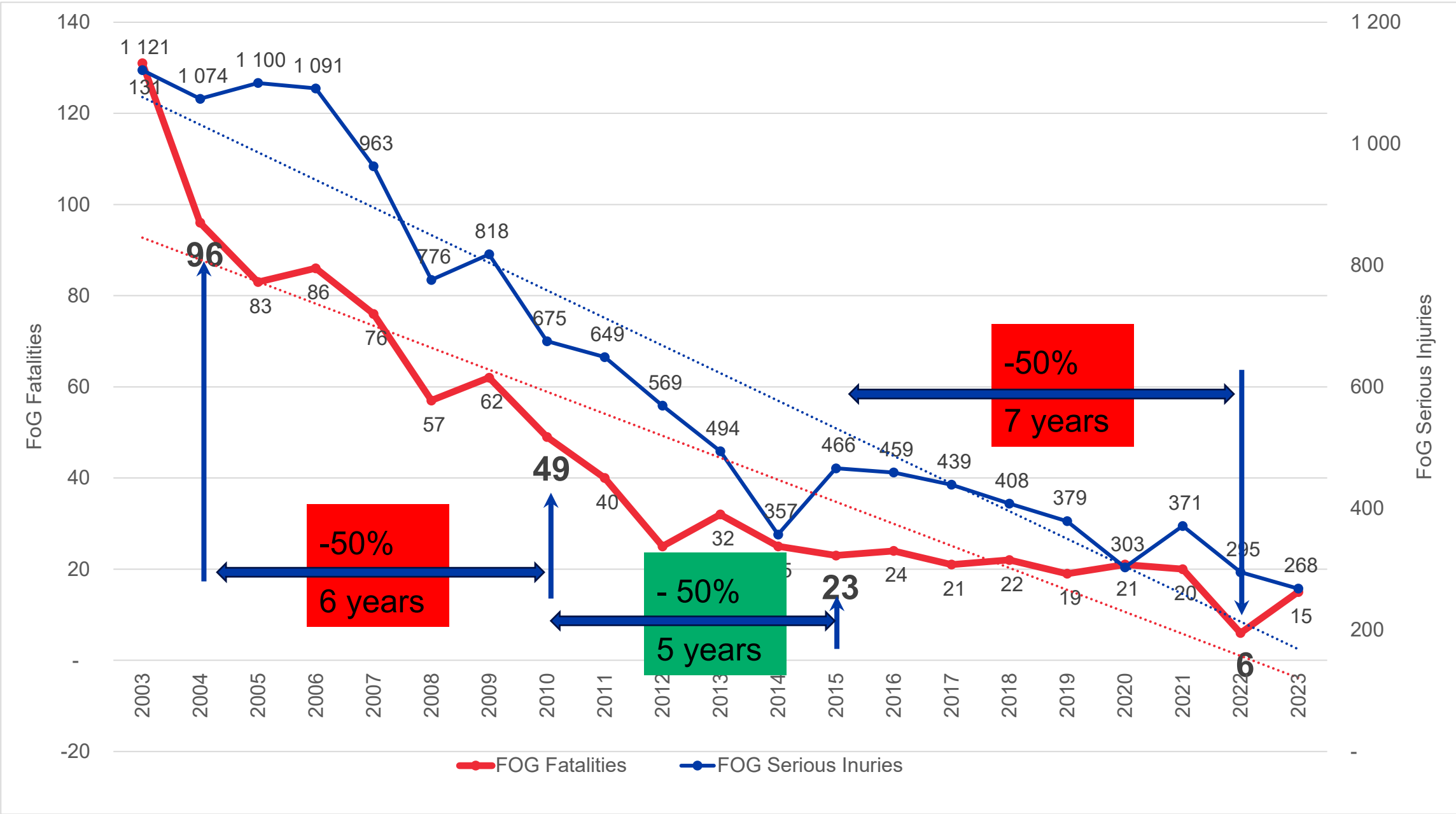
Behaviour, culture, operational discipline

The implementation and monitoring of leading practices

FOGAP includes a financial investment of **R46 million over five years**.



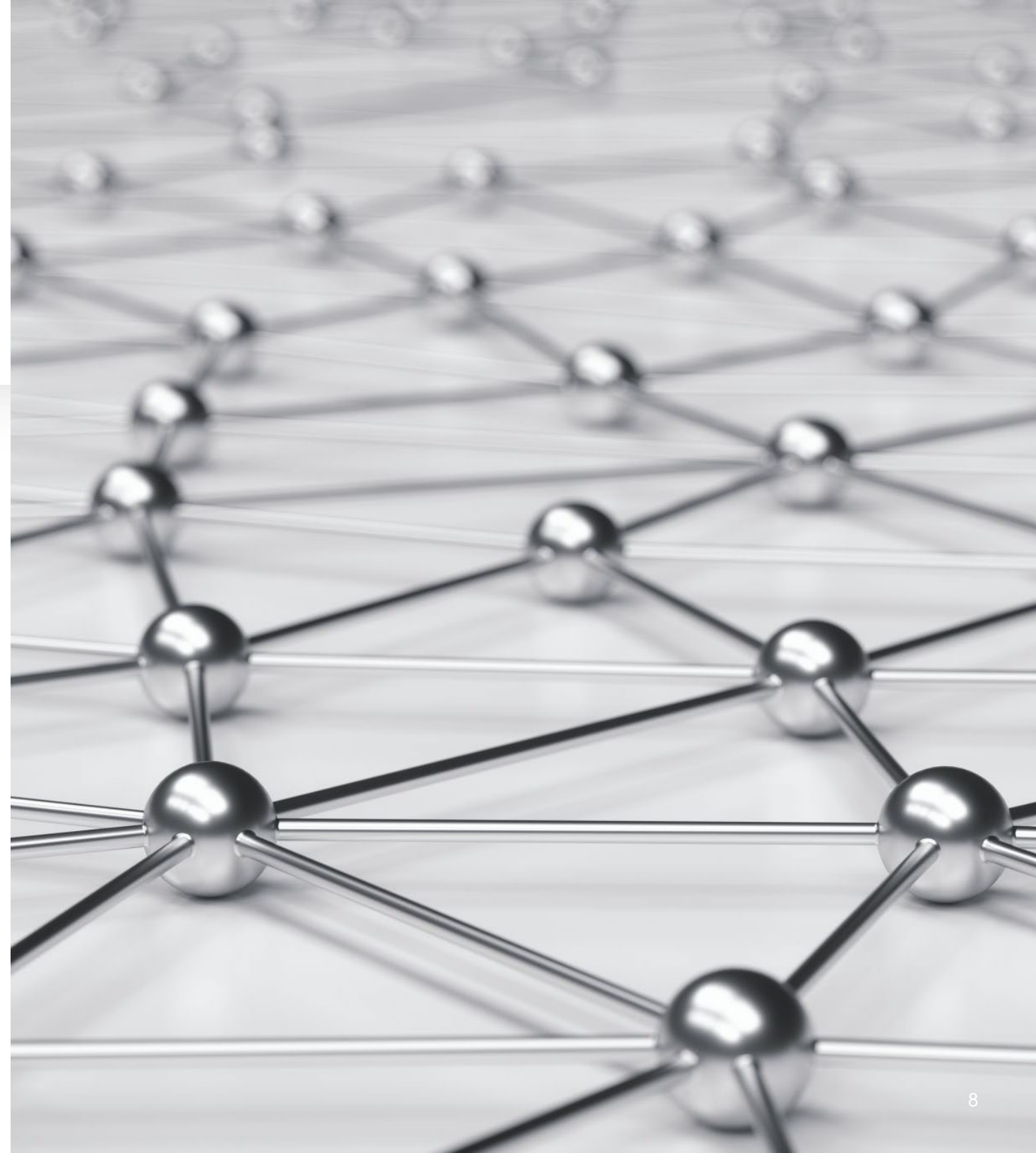
Breakthrough industry FOG safety performance : 2003 to 2023



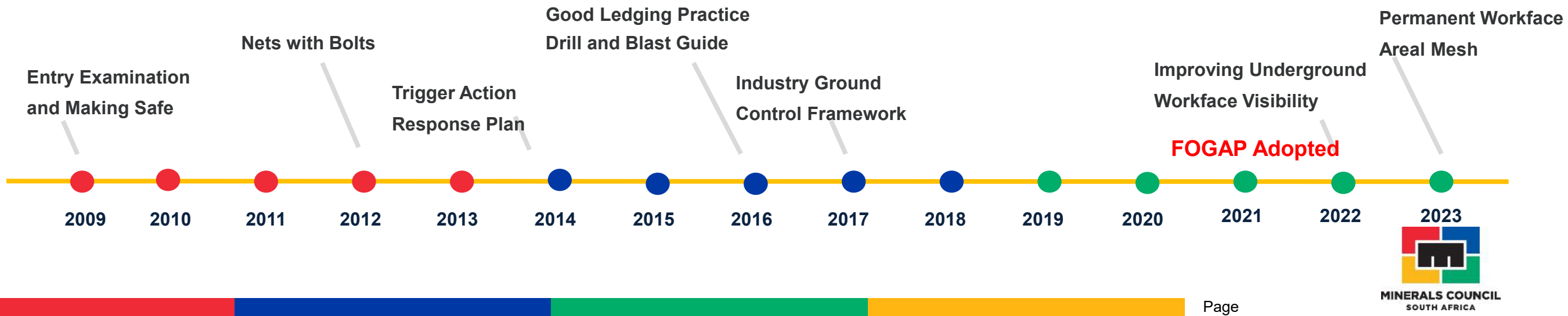
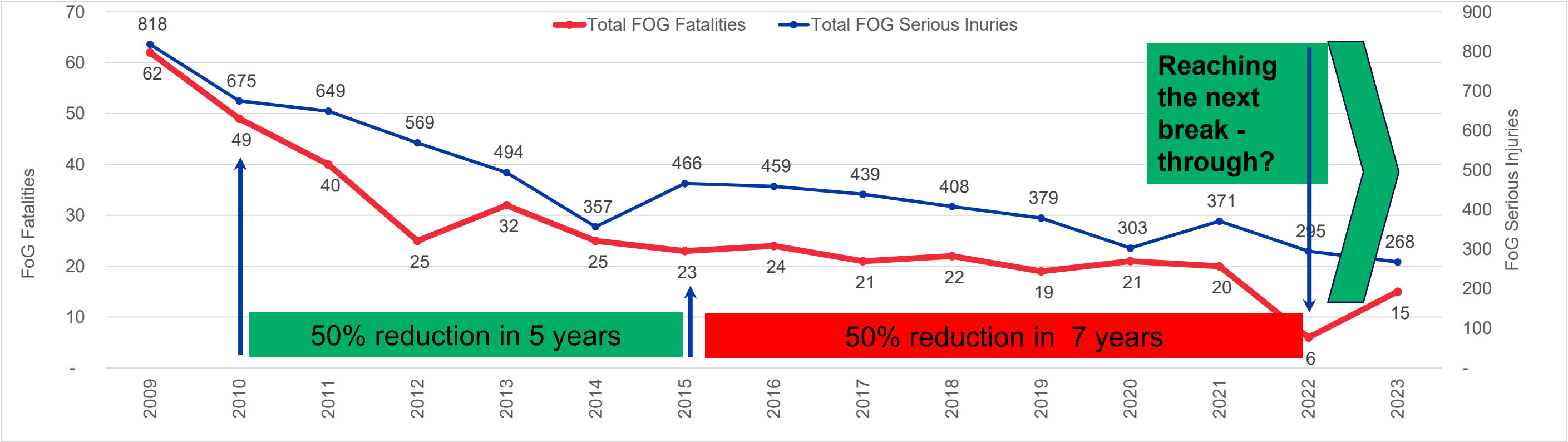


Collaboration for shared vision, resilience & success

- Association of Mine Managers of South Africa (AMMSA)
- South African Collieries Managers (SACMA)
- South African National Institute of Rock Engineers (SANIRE)
- OEMs
- Research Institutions
- Universities



Industry initiatives deliver step changes : 2009 to 2023





Best practice approach to deliver the next breakthrough

- ✓ **Employer commitment - safety first, always.**
- ✓ **Employee commitment - first my life, then my work**



Adopting new technologies and ways of working

Begin with the end (user) in mind - Human centered design and organizational change management have the same starting point: the end in mind. Focus on how the technology empowers the end user, vision of the company and **critical success factors**.



Assess adoption & satisfaction

Regularly assess employees' adoption and satisfaction with the new technologies to identify gaps and areas for improvement. Keep pace with innovation by updating employee skills to match the evolving technological landscape.



Make every process tech-driven

Integrate technology into the fabric of your organisation and into the day-to-day lives of employees. Build a robust data infrastructure to support technological advancements.



Focus on new metrics and KPIs

Traditional performance metrics may not fully capture the impact of new technologies. Define relevant key performance indicators (KPIs) that align with digital transformation goals. Monitor progress using these updated metrics

Way forward to Zero FOG fatality breakthrough

- ✓ **Reinforce** widespread implementation of Fall of Ground Action Plan
- ✓ **Learning and sharing** of leading and best practices and research
- ✓ **Collaboration is key** - no one can solve mine safety alone.
- ✓ **Replicate the successes** in FOGAP in other agencies of fatalities and injuries.
- ✓ **AI and rapidly developing technology** are tools that will bring us into a new era in mining





Anglo American Platinum – Dishaba Mine

Thank you

#MiningMatters

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