

## SAFETY



Safety



1. **Dr Sizwe Phakathi**
2. **Shanaaz Waja**
3. **Lerato Tsele**
4. **Sietse Van Der Woude**

We and our member companies remain committed to the industry's goal of zero harm for all people working at our operations – permanent and contractor employees. The Chamber continues to be actively involved in a number of initiatives and partnerships aimed at eliminating fatalities and injuries in the mining industry.

Our Safety and Sustainable Development Department plays an important facilitative and co-ordinating role in the implementation of the 2024 milestones for mine safety and health in a manner that accelerates the achievement of the industry's goal of zero harm. We achieve this through engagement with the Chamber's Occupational Health and Safety Policy Committee (OH&SPC), the MOSH Learning Hub and the CEO Zero Harm Forum. We also engage with regional associations, including the Association of Mine Managers of South Africa (AMMSA) and the South African Colliery Managers' Association (SACMA), the Department of Mineral Resources (DMR) and organised labour, through the Mine Health and Safety Council (MHSC), and with international industry bodies through the Chamber's membership of the International Council on Mining and Metals (ICMM).

### SAFETY PERFORMANCE AND TARGETS

During the 2014 MHSC Summit, all stakeholders agreed that we needed to accelerate the elimination of fatalities. The occupational safety milestone was therefore set to eliminate fatalities by December 2020, while recognising that every fatality was one too many.

A total of 88 fatalities were reported in 2017, compared with 73 fatalities recorded during the corresponding period in 2016. This marks an increase of 17% in fatalities, the first regression in 10 years. The provisional safety statistics for 2017 indicate that falls of ground were the largest contributor to fatalities in 2017 at 36%, followed by 'general' accidents at 30%, and transport and mining causes at 27%. Fall of ground-related fatalities increased from 24 in 2016 to 26 in 2017. The regression in fall of ground fatalities was compounded by multiple fatalities resulting from seismic events associated with deep-level mining.

The 2014 MHSC Summit occupational health milestone says that up to December 2016, there should be a 20% reduction in serious injuries every year, while from January 2017, there should be a 20% reduction in lost time injuries (LTIs).

The overall provisional number of serious injuries reported was 2,534 compared with 2,785 during the same period in 2016. Although below the annual milestone reduction target of 20%, this is an improvement of 9%, which marks a second consecutive reduction in the number of serious injuries.

Since the last quarter of 2017, the Chamber and its members have taken the following steps in response to the regression in mine fatalities:

- On 20 September 2017, the MOSH Learning Hub facilitated a 'day of learning' workshop on seismicity so that lessons could be shared and relevant research needs identified to effectively manage seismic events. The participants (from the platinum and gold sectors) unanimously expressed the need for preconditioning research as mine depths continue to increase.
- On 3 November 2017, upon reflection on the year-to-date occupational health and safety performance, the CEO Zero Harm Forum sent a letter to the Acting Chief Inspector of Mines and organised labour, expressing disappointment at the regression and highlighting some of the steps being taken by the CEO Zero Harm Forum to hasten the journey to zero harm.
- The Chamber issued a media statement expressing disappointment at the increase in the number of fatalities.

## SAFETY continued

- On 7 November 2017, the Chamber CEOs met with the Deputy Minister of Mineral Resources to discuss the regression as well as a proposal to accelerate an improvement in the industry's occupational health and safety performance.
- The Chamber supported the MHSC Tripartite Leadership event in December 2017 to identify initiatives that would lead to reductions in fatalities, and greater compliance and collaboration.
- The Chamber, the South African Mining Development Association (SAMDA), the DMR and organised labour and the MHSC issued a joint media statement expressing grave concern about the regression in the rate of fatalities despite progress and successes achieved by the industry over the past 23 years towards improving the industry's occupational health and safety performance.

Despite the regression in fatalities in 2017, the South African coal mining sector still compares favourably, in terms of fatality rates, with developed mining nations such as the United States (US) – in 2017 the South African coal mines recorded nine fatalities compared to 15 fatalities recorded by the coal mines in the US. The progress achieved in workplace safety is a tribute to the 2014 Mine Health and Safety Tripartite Summit and continued engagement with the DMR and organised labour through the MHSC.

In 2018, the MHSC will host a tripartite Mine Health and Safety Summit to review progress being made in the implementation and achievement of 2024 milestones on occupational health and safety.

### CAPTION

Glencore – Mashishing



**SAFETY** continued**CEO ZERO HARM FORUM**

Established in 2012, the Chamber's CEO Zero Harm Forum seeks to visibly lead by example, to drive occupational health and safety initiatives, and to share experiences to help address key challenges in a manner that will enable the industry to achieve the 2024 milestones and accelerate the industry's journey to zero harm.

The CEO Zero Harm Forum comprises Chamber member companies: Anglo American Platinum, AngloGold Ashanti, Anglo American Coal, African Rainbow Minerals, De Beers, Glencore Coal, Glencore Alloys, Gold Fields, Harmony, Impala Platinum, Kumba Iron Ore, Sasol Mining, Sibanye-Stillwater and South 32. The CEOs meet every quarter of the year to:

- Develop a model for industry leadership at CEO level
- Model visible leadership behaviour and demonstrate commitment
- Share company experiences and help each other deal with and solve key challenges
- Establish working protocols with industry stakeholders and communities
- Monitor and agree on adjustments to industry models for specific needs

In 2017, the CEO Zero Harm Forum focused on high-impact strategic areas aimed at:

- Sharing lessons learned from successes and incidents
- Promoting engineering controls to eliminate risks
- Changing behaviour through culture transformation

The members of the CEO Zero Harm Forum thus realised, with grave concern, that falls of ground and transport accidents have not reduced significantly over the past five years despite considerable efforts in this regard. It was observed that the quality of the process for developing critical controls was a crucial part of an occupational health and safety risk management strategy. To this end, the CEOs approved the establishment of two working groups to:

- Develop the Critical Control Management Journey Model
- Facilitate the sharing of lessons by learning from incidents

The outcomes of these initiatives included:

- A 'South Africanised' Critical Control Management Journey Model to assess individual company maturity levels in terms of critical control management implementation, focusing on falls of ground and transport (trackless and rail-bound) incidents
- Bilateral meetings between the Chamber and occupational health and safety executives to:
  - Popularise the Critical Control Management Journey Model for use in individual companies
  - Based on the identified maturity level within each company, prepare a list of critical controls for the identified agencies

such as falls of ground and transport (trackless and rail-bound) incidents

- Investigate successes and high potential incidents as part of learning from incidents

Following a spate of seismicity-related accidents, the CEOs noted, with concern, the recent increase in rock bursts while rock falls were decreasing. To this end, the CEOs established a task team to develop a summary of rock-burst leading practices and propose the best way to share these with all companies involved in deep-level mining.

To address transportation-related accidents, the CEO Zero Harm Forum took a global leadership stance on the adoption of people-centric collision management systems by initiating a project, costing more than R8 million, to accelerate a risk-based approach through collaboration among mining companies, suppliers and the MHSC.

The objective of the project is to co-ordinate the industry, and to provide the necessary guidance and support to effectively address the regulatory requirements in order to:

- Facilitate adoption of collision management systems by the set dates with minimal disruption to production
- Develop and incorporate change management tools (behaviour change principles) for inclusion in the outcome documents of the collision management systems sub-committee
- Disseminate the outcome documents through facilitated regional workshops targeted at opencast, surface and underground operations
- Develop and pilot user-friendly behaviour measurement tools to measure the change in employee and leader behaviour at operational level
- Discover a South African people-centric collision management system solution with global application, although manufactured locally in the interests of job creation

All stakeholders need to appreciate the importance of:

- Urgently establishing a proximity detection systems testing facility (funded by the MHSC) to facilitate opportunities for new suppliers and thus local job creation, and lower costs of ownership, while sustaining the same safety standards
- Effective people-centric change management, like the MOSH adoption process, to enhance safety while reducing the impact on production, jobs and government revenue

**APPROPRIATE APPLICATION OF SECTION 54S**

The Chamber has always supported appropriate Section 54 instructions, which empower inspectors to close parts of, or entire mines for health and safety reasons. However, the Chamber remains concerned about inappropriate Section 54 instructions issued since 2007, affecting the viability of many mines and their ability to

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sustain jobs. A recent Labour Court judgement against DMR officials states that a Section 54 instruction must be proportional to the harm or potential harm that it intends to prevent, quoting a legal authority: “one ought not to use a sledgehammer to crack a nut”. The inspector concerned inspected a small portion of the mine and instructed the entire mine to be closed.

The Chamber is particularly concerned about the North West Province where inappropriate Section 54s are challenging the operation of a significant number of loss-making platinum producing shafts in the Rustenburg area. The primary drivers are direct production days lost due to Section 54 stoppages and indirect losses from the slow upliftment process and subsequent start-ups.

The Chamber has participated constructively in many initiatives to find a solution but the DMR continues undeterred. While a number of companies have resorted to costly court action, the Chamber's Platinum (PLF), consisting of CEOs of platinum mining companies, has developed a practical protocol to guide the appropriate application of Section 54 instructions. The protocol contains proposals to deal with challenges that make Section 54 application ineffective in enhancing health and safety, and value destructive:

- Reducing the duration of Section 54 stoppages
- Assessing the applicability of Section 55s (an instruction that avoids stoppages) versus Section 54 and/or other instruments
- Reducing the extent of Section 54 stoppages
- Co-operating appropriately with organised labour
- Assessing applicability of training as remedial action
- Limiting the impact of small defects and administrative issues

The practical protocol has been shared and discussed with the Acting Chief Inspector of Mines since September 2016 with regular follow-ups. No response has been received yet. It has also been tabled at the MHSC for approval by the tripartite stakeholders.

During November 2016, this ‘disproportionality’ was challenged in the Labour Court by AngloGold Ashanti after its entire Mponeng mine was closed by an inspector who had found a few relatively minor localised infractions, which did not pose serious threats to the safety of employees of the mine. In favour of the company, the Court found that the inspector's closure order, as well as the penalty imposed, were disproportionate, and established important legal principles. The Court ruled that an inspector may only close an entire mine if there is objective reason to believe that identified occurrences and conditions endangered, or may endanger, the health and safety of any person on the entire mine, and not only a portion of the mine.

It is hoped that this case will lead to greater clarity between mines, the DMR and its inspectorate.

A further legal challenge by another Chamber member, Sibanye-Stillwater, in the first month of 2017 was over the unwarranted closure of its Kroondal platinum mine in August 2016. The company has lodged a claim against the Mineral Resources Minister and certain DMR inspectors in their personal capacities for an estimated production loss of R26 million.

In March 2017, the Chamber hosted a workshop aimed at training occupational health and safety managers in the interpretation of Sections 54 and 55 of the Mine Health and Safety Act. The Chamber has since tabled a workshop recommendation to the MHSC that this training should be extended to other occupational health and safety managers, inspectors and organised labour's shop stewards. It is envisaged that Section 54 and 55 training will empower tripartite stakeholders to reach a common understanding of the interpretation and implementation of Section 54s and 55s, thus building much-needed trust in this area of mine health and safety.

### MINE HEALTH AND SAFETY COUNCIL

The year 2017 marked the 20th anniversary of the MHSC, which was set up in 1996 to direct safety in the mining industry, and to respond to industry safety and health challenges. The council was built on the achievements of decades of fundamental research and is funded by the mining industry. The MHSC comprises a tripartite board represented by the state, employers and organised labour, under the chairmanship of the Chief Inspector of Mines.

The MHSC is accountable to Parliament and its primary tasks include advising the Minister of Mineral Resources on occupational health and safety legislation and research with outcomes focused on improving and promoting occupational health and safety in South African mines.

The MHSC is a valuable platform for tripartite collaboration in accelerating the improvement of the industry's occupational health and safety performance through shared vision and aspirational 10-year milestones. The council has been working on the implementation plan for the 2014 MHSC Summit milestones on mine health and safety, and plans to effectively implement structures accordingly. Through the MHSC, more than R250 million has been spent on research into seismicity associated with deep-level mines. In addition, R40 million has been spent on fundamental and applied research and technology transfer. The research outcomes have led to new mine designs and methods culminating in the reduction of fatalities associated with seismicity from 48 in 2003 to 14 in 2017.

**SAFETY** continued

In response to the increasing number of seismicity related accidents in 2017, the MHSC will accelerate research and development into rock-related accidents to address knowledge gaps in pre-conditioning pillar designs. Stakeholders have agreed that the MHSC needs to host a workshop on rock fall and rock-burst incidents in January 2018, including rock engineers and seismologists, to provide expert input, advice and recommendations for implementation by the industry.

**MINING QUALIFICATIONS AUTHORITY**

The MHSC works closely with the Mining Qualifications Authority (MQA), which plays a critical role in addressing skills shortages in the mining industry through capacity development and process improvement. The MQA is mandated to ensure that the sector has competent people who have been trained to improve health and safety standards, and processes.

**MHSC CENTRE OF EXCELLENCE**

In November 2014, the MHSC principal tripartite stakeholders launched a Centre of Excellence (CoE) to conduct world-class research, to build research capacity and to facilitate the implementation of research outcomes to accelerate the industry's journey to zero harm.

In 2017, the Chamber actively continued to maintain oversight of business plan implementation for the centre, which began operating on 1 April 2017, and on the execution of the following MHSC CoE quick-win research projects:

- Understanding the impact of technology on people in the South African mining sector
- Assessment of statutory equipment compliance for South African mines based on a centralised database
- Assessment of the feasibility of developing a communication system for underground and surface mining operations
- Development of testing specifications for netting and the dynamic testing of tendons, and assessment of the feasibility of establishing an independent accredited support testing facility
- Development of rock-mass condition assessment tools
- Assessment of the feasibility of developing collision management systems for South African mines
- Missing person locator system
- Assessment of the feasibility of reducing diesel particulate matter (DPM) exposure through replacement and/or conversion of all tier 2 or 3 engines to be able to use low sulphur diesel fuel and the effective maintenance of diesel machines

Through relevant structures, the Chamber will conduct an in-depth review of the findings and recommendations of the final reports of

these MHSC CoE quick-win research projects. It will:

- Ascertain the extent to which the research addressed the terms of reference as outlined in the scope of the research projects
- Assess the socio-economic impact of the recommended systems in terms of commercial viability, cost-effectiveness, human factors and regulatory factors pertaining to the implementation of the research recommendations on South African mines

**BUILDING A CULTURE OF SAFETY**

The Culture Transformation Framework (CTF), developed by the MHSC and approved at the 2011 Health and Safety Summit, is an initiative that seeks to control risks by transforming the culture of health and safety in the workplace. Research shows that an organisation's culture has an impact on safety. In 2011, the MHSC launched a campaign entitled "changing minds, changing mines" with the aim of developing a framework that would guide the South African mining sector towards making the necessary changes to achieve zero harm.

**The Chamber is committed to the effective implementation of the 11 pillars of the CTF, planning to achieve the following by 2020:**

1. Bonuses and performance incentives to prioritise safety ahead of production
2. Risk management aimed at reducing risk at source and investigating root causes of incidents
3. Encouraging leaders to lead by example and walk the talk of zero harm
4. Leading practice as a unified approach to identifying and facilitating the adoption of effective occupational health and safety practices and research
5. Diversity management aimed at eliminating racism, gender bias and any other forms of discrimination
6. Data management to monitor and evaluate progress of CTF implementation and mine health and safety performance

**After December 2020, the Chamber will implement the remaining pillars concerned with:**

7. Integrated mining activities
8. Technology
9. Inspectorate
10. Tripartism
11. Regulatory framework

## SAFETY continued

The MHSC and its tripartite stakeholders held the biennial Mine Health and Safety Summit in November 2016 to review progress in the implementation of occupational health and safety milestones, targets and actions agreed upon by tripartite stakeholders at the 2014 Mine Health and Safety Summit. A declaration of actions (the pledge) was signed at the summit by the tripartite stakeholders.

This declaration of actions, with a view to improving the industry's occupational health and safety performance, emanated from the outcomes of the MHSC Tripartite Leadership Workshop in October 2016. Understanding the importance of changing behaviour and improving the organisational culture of safety in mining operations through transformation, the Chamber Council approved the declaration of actions prior to signing the pledge at the 2016 Mine Health and Safety Summit.

The main aspects of the declaration of actions are:

- **Tripartite visible-felt leadership and relationship building**  
**Action:** Principals and leaders of all stakeholder groups commit to meeting at two facilitated sessions on health and safety per annum. The representation would comprise union presidents and general secretaries, the DMR (Minister, Deputy Minister and Director General), Chief Inspector of Mines, principal inspectors and mining CEOs.
- **Trust deficit**  
**Action:** All stakeholders will address the issue of trust deficit among stakeholders, moving from a transactional to a transformative approach.

### CAPTION

Petra Diamonds – Finch

- **Communication**

**Action:** All stakeholder organisations – the MHSC, organised labour, government and employers – will commit to improving communication across all levels to ensure that the message of zero harm reaches all mine employees and contractors. In so doing, actions intended to improve occupational health and safety will be supported and permeate the industry.

- **Empowerment of supervisors and employees**

**Action:** Stakeholders will collectively and collaboratively empower supervisors, health and safety representatives and employees through extended visible-felt leadership and empowering conversations. This will not only be implemented by employers but also by other stakeholders from organised labour, government and the MHSC. Tripartite stakeholders will also strive to empower women in mining with regard to safety and security challenges, personal protective equipment and hygiene.

- **Annual company health and safety days**

**Action:** Each mining company will commit to hosting an annual health and safety day, tailored to respective needs as part of their health and safety campaigns.

The objective is to reinforce tripartism, raise the bar on tripartite visible-felt leadership in line with the CTF to achieve the 2024 milestones and accelerate achievement of zero harm.



## SAFETY continued

## Mining fatalities per commodity

Commodity	2016	2017**	% Change
Gold	30	39	30
Coal	4	10	160
Platinum	27	26	4
Other*	12	13	8
<b>Total</b>	<b>73</b>	<b>88</b>	<b>17</b>

## Causes of fatalities

Cause	2016	2017	% change
Falls of ground	24	32	36
Transport and mining	23	23	26
Machinery	4	5	5
General	22	26	30
Other*	–	2	2
<b>Total</b>	<b>73</b>	<b>88</b>	<b>17</b>

## Injuries in 2017

Cause	2016	2017**	% change
Gold	1,167	995	(9)
Coal	184	193	5
Platinum	1,120	1,104	(1)
Other*	314	282	(10)
<b>Total</b>	<b>2,785</b>	<b>2,534</b>	<b>(9)</b>

\* Other includes diamonds, chrome, copper, iron ore and all others not specified

\*\* 2017 figures are provisional until confirmed by the Minister of Mineral Resources

Source: Department of Mineral Resources



AngloGold Ashanti – Mponeng

**CULTURE TRANSFORMATION BY MHSC AND CHAMBER**

In 2017, various structures of the Chamber were involved in the implementation of CTF initiatives.

**Changing behaviour through the CTF**

CTF pillar	2016 Summit pledge/actions	MHSC R&D and other
<b>Leadership</b>	<ul style="list-style-type: none"> <li>• Tripartite visible-felt leadership and relationship building</li> <li>• Address stakeholder trust deficit</li> <li>• Improved communication to all employees and contractors</li> <li>• Empowerment of supervisors and employee empowerment</li> <li>• Annual health and safety days as part of overall health and safety campaigns</li> </ul>	<ul style="list-style-type: none"> <li>• Research project aimed at the development of OHS leadership assessment tool (360)</li> <li>• MHSC tripartite stakeholder principals facilitated session on industry occupational health and safety</li> </ul>
<b>Risk management – accident investigations</b>		<ul style="list-style-type: none"> <li>• MHSC tripartite training on Section 54s/55s and consideration of Section 54 protocol</li> <li>• MHSC report on accident investigation</li> <li>• MHSC study on assessment of occupational health and safety risk management systems in South Africa mining industry</li> </ul>
<b>Bonus and performance incentive systems</b>		<ul style="list-style-type: none"> <li>• Research project aimed at the development of guidance on zero harm operations bonus system</li> </ul>
<b>Leading practices</b>		<ul style="list-style-type: none"> <li>• MHSC common approach to identification of leading practices and research outcomes</li> </ul>
<b>Diversity management</b>		<ul style="list-style-type: none"> <li>• Research project aimed at the development of diversity assessment tool in line with pillar minimum standards</li> </ul>
<b>Data management</b>		<ul style="list-style-type: none"> <li>• MHSC milestone reporting system launched at 2016 Summit and being piloted</li> <li>• MHSC to draft lost time injury (LTI) reporting form through MRAC</li> </ul>

**SAFETY** continued

Chamber	Guidelines	Chamber structure
<ul style="list-style-type: none"> <li>• Leadership Vision 2030 with AMMSA and universities</li> <li>• Facilitate two sessions of stakeholder principals and leaders per annum as outlined in 2016 Summit Pledge</li> <li>• Review MHSC OHS leadership assessment tool (360)</li> </ul>	<ul style="list-style-type: none"> <li>• Right to refuse dangerous work</li> <li>• MHSC OHS leadership assessment tool (360)</li> </ul>	<ul style="list-style-type: none"> <li>• Occupational Health and Safety Policy Committee</li> <li>• MOSH Learning Hub</li> <li>• OHS leadership and diversity management working group</li> <li>• CEO Zero Harm Forum</li> </ul>
<ul style="list-style-type: none"> <li>• Analysis of high-potential incidents/high-potential hazards(quality of accident investigations methods)</li> <li>• Critical control management of OHS risks</li> <li>• Training of managers on section 54s and 55s</li> <li>• Collision management systems and TMM regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Influence drafting and adoption of section 54s/55s protocol during proposed training of OHS managers, inspectors and organised labour shop stewards</li> <li>• Chamber’s draft “South Africanised” critical control management (CCM) journey model</li> <li>• TMM risk guideline</li> <li>• Industry user requirements protocol</li> </ul>	<ul style="list-style-type: none"> <li>• Occupational Health and Safety Policy Committee</li> <li>• Legal department</li> <li>• MOSH Learning Hub</li> <li>• Learning from Incidents (LFI) working group</li> <li>• CCM working group</li> <li>• Consulting mechanical and electrical engineers</li> </ul>
<ul style="list-style-type: none"> <li>• Review of MHSC OHS incentive scheme guide</li> </ul>	<ul style="list-style-type: none"> <li>• MHSC OHS incentive scheme toolkit</li> </ul>	<ul style="list-style-type: none"> <li>• Occupational Health and Safety Policy Committee</li> <li>• Working group on review of MHSC OHS incentive scheme</li> </ul>
<ul style="list-style-type: none"> <li>• MOSH adoption as a global leading change management practice</li> </ul>	<ul style="list-style-type: none"> <li>• Common approach to identification of leading practices and research outcomes (MHSC &amp; MOSH)</li> </ul>	<ul style="list-style-type: none"> <li>• Occupational Health and Safety Policy Committee</li> <li>• MOSH Learning Hub</li> </ul>
<ul style="list-style-type: none"> <li>• Review MHSC diversity management assessment tool</li> </ul>	<ul style="list-style-type: none"> <li>• MHSC diversity management assessment tool</li> </ul>	<ul style="list-style-type: none"> <li>• Occupational Health and Safety Policy Committee</li> <li>• OHS leadership and diversity management working group</li> <li>• MOSH Learning Hub</li> </ul>
<ul style="list-style-type: none"> <li>• Healthsource for health data included in MHSC pilot of milestone reporting system</li> <li>• Collation of LTI data from CEO Zero Harm Forum</li> </ul>	<ul style="list-style-type: none"> <li>• MHSC revised SAMRASS</li> </ul>	<ul style="list-style-type: none"> <li>• Occupational Health and Safety Policy Committee</li> <li>• Health Policy Committee</li> <li>• Group environmental engineers</li> <li>• MOSH Learning Hub</li> <li>• CEO Zero Harm Forum</li> </ul>

**SAFETY** continued



 **CAPTION**  
Kumba Iron Ore – Sishen



## CASE STUDY

### CEOs HASTEN ZERO HARM JOURNEY

The Chamber of Mines, and its members, are deeply disappointed and regretful that 2017 was marred by the first regression in fatalities in the past decade.

“This has strengthened the resolve of the CEOs to work together with our tripartite stakeholders in government and organised labour to embolden and accelerate initiatives that could improve this unacceptable performance,” Chris Griffith, Chairperson of the CEO Zero Harm Forum told the Chief Inspector of Mines in a statement on 3 November 2017. “This year’s safety performance is particularly lamentable given that 2017 is the year in which all tripartite stakeholders acknowledge the incredible improvements in health and safety achieved collaboratively since the enactment of the Mine Health and Safety Act 20 years ago.”

On behalf of all the CEOs, Griffith assured the Chief Inspector of Mines that, even though progress had been made, much remained to be done, bearing in mind that **“every fatality is one too many”**.

In partnership with government and labour, the forum has taken the following steps to hasten the journey to zero harm:

- **Learning from incidents:** Sibanye-Stillwater, Harmony, Impala, AngloGold Ashanti and Anglo American Platinum have shared lessons from recent incidents.
- **Falls of ground (FOG):** The MOSH Learning Hub has provided feedback from the Day of Learning on Seismicity in September, indicating that rockbursts have increased recently while rockfalls are reducing. Falls of ground remain the greatest contributor to fatalities in mining. It has been resolved that Chris Sheppard, sponsor of the MOSH FOG team, will lead a task team in developing a summary of rockburst leading practices and propose the best ways to share information with all involved in deep-level mining. In addition, the Mine Health and Safety Council (MHSC) has been urged to accelerate research and development related to pre-conditioning and pillar designs in platinum, among others, where there are knowledge gaps.
- **Transport:** Earlier this year, the CEO Zero Harm Forum adopted a global leadership approach to the adoption of collision management systems by initiating a project, at a cost of more than R8 million, to accelerate a risk-

based approach through collaboration among mining companies, suppliers and the MHSC. It is imperative that all stakeholders appreciate the importance of:

- Urgently establishing a pedestrian detection system (PDS) testing facility funded by the MHSC to attract new suppliers, create local jobs and lower costs of ownership while upholding safety standards
- People-centric change management like the MOSH adoption process to enhance safety while reducing the impact on production, jobs and government revenue
- **Missing person locator systems:** The CEOs have been informed about the MHSC’s research, which will be reviewed by company experts who will present advice on the way forward.
- **Dust and noise**  
Anglo American has shared valuable experiences on exposure reduction in surface operations:
  - Noise: An assessment has been conducted among companies to determine their readiness to achieve the new noise milestone. The majority of companies are almost or entirely ready.
  - Dust: Anglo American Coal has shared leading practice on real-time dust monitoring and control. Some gold companies have agreed to trials of controls linked to real-time dust monitoring.
- **MHSC information management system on health and culture transformation:** Progress has been made in piloting this system and members have agreed to support this initiative. With regard to the Culture Transformation Framework, members have committed to report on progress. In parallel, principles and leading practice guidelines on each of the pillars will be shared during 2018.



**“I can assure you that the CEOs are doing all in their power to make mining safer and to work with other stakeholders in the industry to ensure that mineworkers return home from work unharmed every day,” Griffith emphasised.**