



TRANSPORT AND MACHINERY ADOPTION TEAM

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TOWARDS ZERO HARM IN THE SOUTH AFRICAN MINING INDUSTRY

- o Initial development of the adoption system in 2007
- o Round table meeting of CEO's in 2008 agreement was reached to achieve zero harm in the mining industry
- o Piloting of the MOSH (Mining Industry Occupational Safety and Health) leading practice adoption system 2008/9

MOSH LEADING PRACTICE ADOPTION SYSTEM



A detailed process for:

- o Identifying
- o Documenting
- o Demonstrating and,
- o Facilitating the widespread adoption of practices that the greatest potential to improve OHS

MOSH ADOPTION SYSTEM

FOCUS AREAS



The current focus areas are:

- o Noise
- o Dust
- o Fall of Ground
- o Transport & Machinery,

(T&M adoption team now in the process of being established).



T&M WORKSHOP

- ❑ Employer summit for 2009 hosted by Chamber of Mines and sponsored by various Mining Houses held on 13 November 2009.
- ❑ A purpose of the summit was to identify Major transport and machinery risks and to share leading practices which could be adopted to address the risks.



T&M WORKSHOP

- ❑ What transport and machinery risks might keep me as an operational manager, awake at night?
- ❑ What are the leading practices in industry on transport and machinery risks, including avoidance systems, fatigue management, conveyor belts, rail-bound equipment, trackless mobile machines and scrapping winch installations?
- ❑ What else should we do together to assist operational management in T&M safety?

ALIGNMENT TO MMMA BIG FIVE FOCUS AREA



- o MOBILE EQUIPMENT

LEADING PRACTICES IDENTIFIED FROM T&M WORKSHOP



Mobile Equipment

Automatic coupling device (Impala Platinum)

Speed limiting systems (New Denmark)

Operator authorization system (MAMA) for vehicles

C track on all vehicles that transport people

Vehicle detection system

Anti collision (New Vaal)



LEADING PRACTICES IDENTIFIED

Mobile Equipment

Speed traps

Colour coding of HME

Separation between pedestrian, light vehicle & heavy vehicles (Lonmin)



LEADING PRACTICES IDENTIFIED

Fatigue	Winches
Shift change over (Delmas Colliery)	Signaling devices (Impala Platinum)
Away from cold drinks to fruit packs (Xstrata)	Lights (pull-wire system)
Food supplement /regular breaks/alternate driver &guard/4x4 (12 hour shift)	Bell wire e.g. robots at 15m intervals – light shining on (Impala Platinum)



LEADING PRACTICES IDENTIFIED

Fatigue	Winches
OSPAC – fatigue testing prior to operations / mid-shift breaks	Scraper winch installation vs communication system
Early personal warning fatigue system	Electronic pre-starting device (Scraper Harmony Evander)
Job rotation on shifts	



LEADING PRACTICES IDENTIFIED

Other B/P

Bibs for visibility

Random alcohol testing, breathalyzer on machine in order to switch on (Mafube)

Simulator training

Standardization of equipment – easier to train operations and maintenance personnel

High risk verification of weekly tasks by management

Whistle for spotters



LEADING PRACTICES IDENTIFIED

Other B/P

High tension power monitor on mobile cranes

Automotive fire detection system (Impala Platinum)

Formal groups have been established e.g. EMESRT where leading practices are shared

CASCAM GPS system (on surface) & underground Voico RFID system: machine to machine and man to machine communication system. Harmony CSI / RFID system

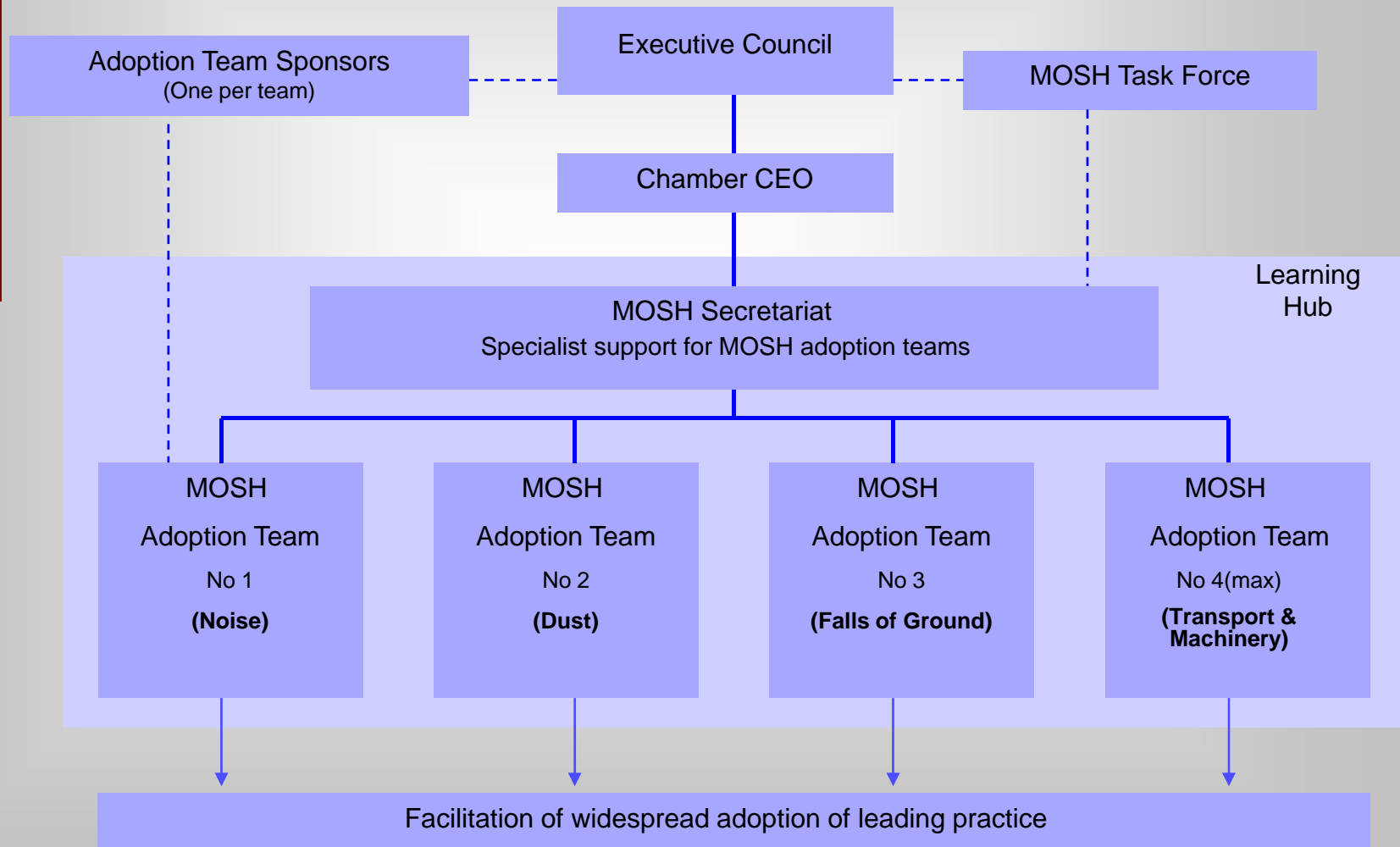
ESTABLISHMENT OF T&M ADOPTION TEAM



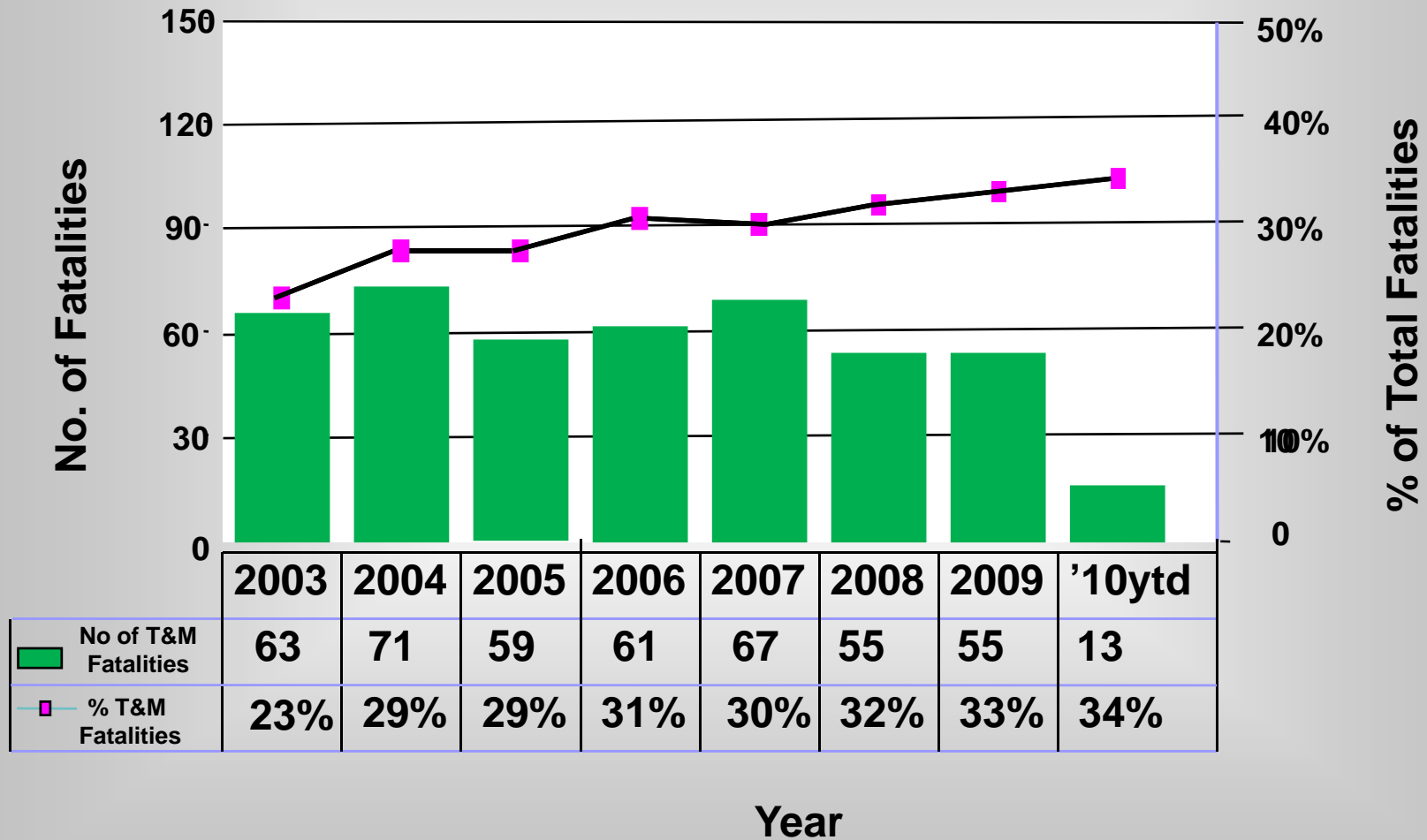
Typical stakeholders

- o A/T Manager
- o A/T Assistant Manager
- o Industry Members
- o Co-opted industry members
- o MOSH trainees
- o Learning Hub Adoption Specialist

MOSH ORGANIZATIONAL STRUCTURE



Transport & Machinery (T&M) Fatalities & % of Total





CONCLUSION

- o A collective/collaborative approach is required to enable the success of the adoption system
- o Worker participation and leadership support form the cornerstone of this initiative
- o What is expected from you:
 - Nominate workers to the adoption team
 - Share leading practices
 - Adoption of leading practices