

# Anglo American develops a real-time data and data analytics platform that helps build a healthier and safer workplace

The Anglo American Occupational Health and Information Management teams have worked in partnership to develop the Operational Intelligence Suite (OiS), a real-time data analytics platform that interrogates data feeds, manual uploads, and events. The diagnostic results generated by the platform help users to make the right decisions at speed, when things go wrong, in terms of workplace environmental conditions at mine sites. That information is then used to do a 'deep dive' analysis, to get to the root cause of problems and prevent repeat occurrences.

"We developed OiS in-house in response to a growing need in the business," said Cas Badenhorst, the Group Leader: Occupational Health and Hygiene. "Some of our key stakeholders needed a tool that would allow them to evaluate workplace and external environments and impacts on communities, as well as monitor control performance."

## A GLOBAL ROLL OUT

The key difference between the Anglo American OiS system and other, off-the-shelf products is its ability to receive, record, and analyse data, such as air flow, gas and dust levels etc., from multiple sensors on a single platform that also has analytical and reporting capabilities. "We now have the ability to monitor both the workplace environmental condition and the control performance simultaneously," said JJ van Staden,

Group Principal: Occupational Hygiene. "OiS is already in place at several of our businesses, including Anglo American Platinum, where potential exposure to health hazards is being significantly reduced by real-time monitoring of dust, noise, and gases", said Cas Badenhorst.

The system is currently being introduced at Anglo American's iron ore and coal businesses in South Africa and copper business in Chile. Further roll outs are planned for Brazil and Botswana in 2019. The next phase of development will include predictive analysis modelling that could, potentially, prevent control failures and health and safety incidents from happening.

The system was recently recognised at the 2018 USA National Institute for Occupational Safety and Health (NIOSH) Awards, held in Washington, D.C., USA, where it received the award for Technology Innovation in Health and Safety. Speaking about the award, Dr Stefaan van der Borgh, Head of Health for Anglo American, had this to say: "If we ever want to live up to our ambition to end the new occurrence of occupational diseases, we have to reinforce prevention. Simply put, we have to prevent our colleagues from being exposed to any substance that might cause an occupational disease. We need real-time data to be able to intervene when such an exposure might occur. Quick and appropriate action will save lives."



From left to right: Adam K Smith (NIOSH), JJ van Staden (Anglo American), Prof. Cas Badenhorst (Anglo American), Dr RJ Matetic (NIOSH), Mr Hal Quinn (President and CEO of the National Mining Association (NMA), USA) Photograph: NMA