

Modernising STEM education for Australia's future mining workforce

Statement from Dr Gavin Lind, Director Workforce, Health, Safety, Environment and Communities

Tremendous opportunities for Australia's mining industry presented by new technologies and automation will only be fully realised by inspiring the next generation to pursue science, technology, engineering and maths (STEM) disciplines.

Australia's world-class mining sector needs more highly-skilled STEM professionals – yet student participation and outcomes in STEM subjects have declined markedly over the last decade.

In its submission to the Optimising STEM Industry-School Partnerships: Inspiring Australia's Next Generation Issues Paper, the MCA has urged the STEM Partnerships Forum to support the Productivity Commission's recent recommendations for reform across the Australian education system in its final report to the COAG Education Council.

These recommendations included ensuring a focus on skills formation, the development of foundational skills and introducing incentives to focus on student learning outcomes. These reforms will underpin an open, high-quality education system able to prepare people with the right skills for technology adoption, use and diffusion.

While urging reform to reposition Australia's education system for the future, the minerals industry is actively investing and supporting initiatives to improve education outcomes, build careers awareness and support teacher professional development.

The MCA-administered Minerals Tertiary Education Council (MTEC) has provided more than \$50 million in funds to collaborative initiatives at 17 universities across Australia – helping approximately 4,500 graduates.

Support through MTEC is in addition to direct support from mining companies such as the BHP Billiton Foundation's \$55 million investment over five years in STEM-related activities² and Rio Tinto's recent \$2 million contribution towards development of a pioneering new curriculum in vocational education and training. 3

In May this year, the MCA will convene an education summit bringing together industry, universities and government to progress a coordinated approach to building the minerals workforce of the future.

Other initiatives supported by the MCA include Robogals Asia Pacific to encourage girls in primary and secondary school to explore an interest in science and The Aspiration Initiative, which provides support for Aboriginal and Torres Strait Islander students.

The MCA is also a platinum sponsor of the Teacher Earth Science Education Programme, a national program providing professional development modules and online resources to science teachers.

More than 200,000 high-paid, high-skilled professionals and tradespeople are employed in Australia's minerals industry, mostly in regional and remote Australia. The sector employs more geologists, geophysicists, industrial and mechanical engineers, metallurgists and physicists than any other industry.

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¹ Productivity Commission, Shifting the Dial: 5 Year Productivity Review, Report No. 84, Canberra, 3 August 2017.

² BHP, <u>BHP Billiton Foundation</u>, viewed 12 February 2018.
³ Rio Tinto, <u>Rio Tinto, TAFE and the WA State Government join forces for mining jobs of the future</u>, 20 October 2017