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14 April 2016

Dr Loraine Abernethie  
Principal Research Officer  
Economics and Industry Standing Committee  
Parliament House  
PERTH WA 6000

Dear Dr Abernethie

**TRANSCRIPT OF EVIDENCE; SUPPLEMENTARY INFORMATION**

Once again, BHP Billiton thanks the Committee for the opportunity to contribute to its Inquiry into Technological and Service Innovation in Western Australia.

We have reviewed the transcript of evidence, and marked up any necessary corrections on the copy enclosed.

I am also pleased to provide the Committee with supplementary information regarding BHP Billiton partnerships aimed at boosting skills capacity Science, Technology, Engineering and Mathematics (STEM). Two fact sheets are enclosed, outlining the initiatives supported through BHP Billiton Corporate Charities and the Western Australia Iron Ore social investment program respectively.

In submitting this supplementary information, we seek to clarify an error contained in BHP Billiton's original submission. We had incorrectly stated that Western Australian Iron Ore's annual funding commitment to STEM education programs is A\$27.8 million. Rather, this figure represents the Iron Ore's current overall STEM education partnership commitment. For the 2015 financial year the STEM education program spend was in fact A\$3.4 million.

We look forward to welcoming the Committee to our Integrated Remote Operations Centre (IROC) next week.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Julius Matthys".

 **Julius Matthys**  
Vice President Corporate Affairs  
BHP Billiton Western Australia



**bhpbilliton**  
Foundation

## Supporting education supports the economy.



**An opportunity exists to position Australia as a nation of innovators. To seize this opportunity and compete globally as a skills-based economy, we must focus on the importance of science, technology, engineering and maths (STEM).**

With a total economic benefit of over \$290 billion per year from advanced physical and mathematical sciences<sup>1</sup>, there is a clear link between STEM and Australia's future prosperity.

STEM professionals create value across a diverse range of sectors, but this is particularly true for the resources industry. In BHP Billiton, many of our 80,000 employees are STEM professionals and their innovative thinking and problem solving skills helped us to achieve over US\$4 billion gains from improving productivity. This is critical to our business, particularly in a time of challenging market conditions.

While the demand for STEM professionals is strong, there are not enough people with STEM skills and qualifications. As a nation, we need to address this gap to secure Australia's international competitiveness.

In a rapidly changing and complex world, Australia's future success will rely on a highly educated and diverse workforce founded on a strong pipeline of science and technology skills. We need young people who are innovative, resilient, problem solvers and critical thinkers.

STEM education will be critical to building the skills that will secure the prosperity of future generations. Providing access to quality education and training will unlock opportunities for individuals, enable communities to prosper, and businesses and economies to compete.

In Australia, research indicates that diversity of thought among STEM professionals leads to better outcomes, however women and indigenous people remain under-represented in STEM education. An opportunity exists to expand the pipeline of STEM skills by increasing the participation of these groups in STEM topics at primary, secondary and tertiary level.

<sup>1</sup> *The Importance of Advanced Physical and Mathematical Sciences to the Australian Economy* report produced by the Centre for International Economics, for the Office of the Chief Scientist and the Australian Academy of Science, March 2015

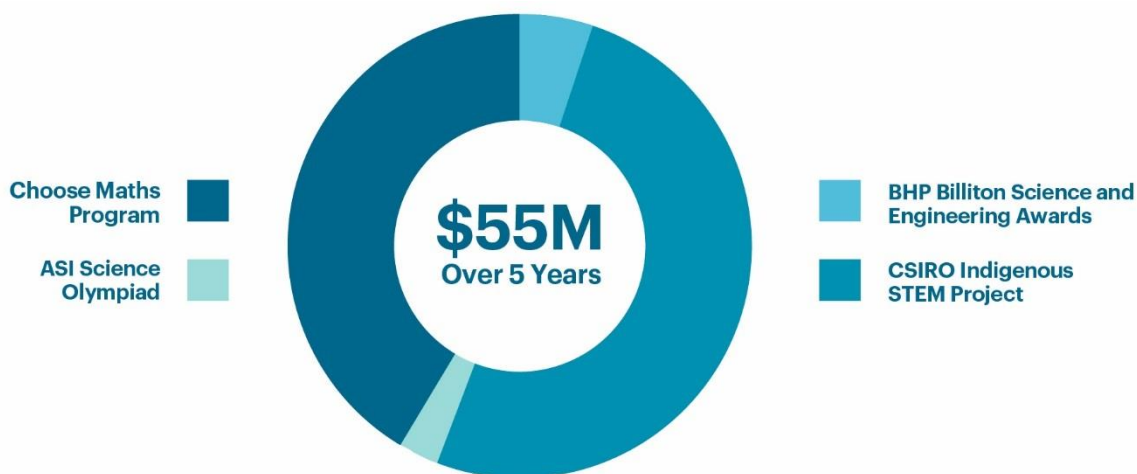
To support a national effort to address this gap, the BHP Billiton Foundation has developed innovative partnerships to improve STEM outcomes for key target groups. Over \$55 million has been committed to Australian programs to increase interest and academic achievement in STEM subjects and related professions.

## Choose Maths – AMSI

The **Choose Maths** program in partnership with the Australian Mathematical Sciences Institute (AMSI) is designed to change perceptions of studying mathematics, with the aim of increasing uptake from girls and young women. Core components of the program include professional development for teachers, additional curriculum resources for schools across the country, scholarships, networking support and an awards program to recognise excellence in both teaching and learning.

## BHP Billiton Science and Engineering Awards – CSIRO

The BHP Billiton Foundation supports the **BHP Billiton Science and Engineering Awards**, which aim to increase the number of students taking their science and engineering study to a tertiary level. The Awards are a partnership between the BHP Billiton Foundation, CSIRO and the Australian Science Teachers' Association and have been recognising excellence among young scientists for 35 years.



## Australian Science Olympiads – ASI

BHP Billiton Sustainable Communities supports the Earth and Environmental Science Olympiad, part of the **Australian Science Olympiads** – the flagship program of Australian Science Innovations. The investment also supports the development of online training programs that will improve access to learning materials for students and schools as they are preparing for Olympiad selection exams.

## Indigenous STEM Project – CSIRO

Through its partnership with CSIRO, the BHP Billiton Foundation is investing in a program to increase interest and academic achievement among Aboriginal and Torres Strait Islander students in STEM subjects and related professions. The integrated elements within the five year **Indigenous STEM project** build on successful education programs and include reward and recognition for student achievement.

### The BHP Billiton Foundation

The BHP Billiton Foundation, through the programs we support, has the opportunity to act at scale to make a distinctive contribution to social and environmental progress globally. We want to work with others to raise the bar, find new solutions and set new standards for the future.

The work of the Foundation complements the extensive programs supported by BHP Billiton's operations which are designed to make a positive impact to local communities.

**“By supporting these programs, the BHP Billiton Foundation recognises the importance of STEM education for the creation of future economic opportunity for Australia and the prosperity of the next generation.”**

**Tony Cudmore**  
BHP Billiton Chief Public Affairs Officer



# Iron Ore Social Investment STEM Education

**BHP Billiton Iron Ore is committed to creating a lasting education legacy for young people living in Western Australia.**

We understand that Science Technology Engineering and Mathematics (STEM) education provides an essential underpinning for an innovative and scientifically literate culture: a driving force of economic growth. In Western Australia we currently have in place STEM education partnerships valued at over A\$27 million.

Our support for STEM education programs is based on international evidence which highlights that exposure to interactive science experiences creates positive attitudes; a greater understanding of the role of scientific processes in everyday life and that science related extra-curricular programs correlate to increased student performance.



## University of Western Australia eZone

An infrastructure investment of A\$10 million toward the construction of the UWA eZone, to create a global centre of excellence for the resources industry in Perth.

We have invested a further A\$2 million for the appointment of a Research Fellow in the area of Remote Operations; Automation and Robotics alongside a corresponding suite of scholarships.

## Scitech

Our current five-year, A\$2.4 million partnership with Scitech supports their CSIRO Lab, Aboriginal Education Program and biannual feature exhibitions.

Dating back to 1988, our Scitech partnership aims to increase participation in science and technology studies among young Western Australians.

## Graham Polly Farmer Foundation

We have supported the Foundation to deliver its programs to Pilbara schools for more than a decade, including the Hedland Maths and Science Centre of Excellence for Indigenous primary school students.

The program delivers interactive engaging maths and science experiences designed to improve student learning outcomes and in particular extend numeracy and science achievement levels in Hedland schools.

## Curtin University of Technology

Through our current partnership with Curtin University, BHP Billiton is supporting up to 60 Science and Engineering undergraduate and postgraduate scholarships, including the award of four Women in Engineering Undergraduate Scholarships per year to support diversity in the field.

## Australian Indigenous Education Foundation

Over our 13 year partnership with AIEF, a minimum of 185 secondary and tertiary scholarships will be provided to Indigenous students across WA.

The tertiary scholarships aim to increase the number of Indigenous students completing science and engineering related studies.

## University of Western Australia Business School

Our A\$5 million UWA Business School partnership supports over 100 Engineering scholarships, with funds dedicated to increasing the number of high achieving engineers.

We also support five Indigenous scholarships per year for students from the Pilbara or Kimberley studying Engineering, Law, Science, Economics or Commerce.