



Chief Scientist

EARNING OUR WAY THROUGH SCIENCE

Next Generation Skills for the Next Generation Workforce

A strong science, technology, engineering and mathematics (STEM) enterprise begins with education. As our lives become ever more reliant on science, STEM engaged citizens and skilled workers are crucial to a nation dependent on new ideas, innovative industries and informed decision making.

Already, other nations have recognised the importance of a STEM educated workforce for their prosperity. And they have made plans to achieve this. They are not leaving it to chance; or to 'the market' without careful intervention.

A US survey found that in the past decade, growth in STEM jobs was three times as fast as growth in non-STEM jobs. It found that STEM workers are also less likely to experience joblessness than their non-STEM counterparts. The US government has committed resources to produce 100,000 new STEM teachers, and seeks one million additional graduates in STEM over the next decade.

Australia too, must take action. We cannot take the view that because the past was OK and the present is alright that the future will naturally be OK.

We will have to change – and we need to plan that change as best we are able.

We need to ensure that Australia has the capacity to meet the challenges that will come; to be smart and to earn our way using our wits.

The Australian Industry Group recently estimated that 75% of the fastest growing occupations in Australia require STEM skills and knowledge. They also found that for a quarter of employers, the biggest barrier to their recruitment was a lack of applicants with STEM skills.

The President of the Business Council of Australia, Tony Shepherd, said in April this year: *"We need to create an environment that encourages innovation. Firstly, that means providing people with the right education and skills from a young age – maths, science, problem solving and design thinking."*

A strategic approach to our education system is the only way we will be able to help prepare our citizens for a future increasingly dependent on STEM skills for their day-to-day lives, and to prepare an adequate workforce.