

SCIENTISTS AND MATHEMATICIANS IN THE WORKFORCE – BUILDING OUR FUTURE

Roslyn Prinsley (Roslyn.Prinsley@chiefscientist.gov.au)

National Advisor, Maths and Science Education and Industry, Office of the Chief Scientist, Canberra ACT 2601, Australia

KEYWORDS: WIL, STEM, workforce, STEM graduates

ABSTRACT

Universities have two obligations to their students. The first is to provide them with a deep knowledge of their discipline; and the second is to prepare them for work. While Science faculties have had a strong focus on the former, employers have consistently reported that students are underprepared for the workplace. Students who have undertaken work integrated learning (WIL) have been shown to achieve better employment outcomes than those who have not. WIL also builds bridges between business and universities.

Results will be reported from Office of the Chief Scientist commissioned research on the role and extent of WIL from the perspectives of both universities and industry. The results show that the participation of science students in WIL is very low. The incentives and barriers to WIL in both universities and industry are also identified, and a national approach explored to address these.

The Office of the Chief Scientist is now taking this research to the next stage. We are working with the Australian Council of Deans of Science to develop an approach and strategies to WIL in Science faculties. A roadmap will be developed to scale up WIL in science faculties across Australia

WIL is an important means of preparing students for work. We also need to encourage a culture of entrepreneurship in our science students in order to generate new innovative businesses and industries. Preliminary findings from our research on STEM entrepreneurship and training in Australian universities will be reported.

Proceedings of the Australian Conference on Science and Mathematics Education, Curtin University, Sept 30th to Oct 1st, 2015, page 5, ISBN Number 978-0-9871834-4-6.