

18 November 2016

### **Comments on the Skilled Occupation List**

These comments are prepared on behalf of the Australian Council of Engineering Deans (ACED) that represents the views of the 36 Engineering Deans across Australia.

The ACED has formally been in operation for more than 20 years, with the stated mission *“To promote and advance engineering education, research and scholarship on behalf of Australian universities through a range of activities including engagement with relevant organisations.”*

ACED does this in the national and international interest, which for education and research includes assuring the public that engineering graduates will conduct their work in the public interest with due regard for human safety and the sustainability of the environment.

ACED is an incorporated association whose members are the Australian public universities that provide undergraduate and postgraduate degree programs and research in engineering.

We have perused the Skilled Occupations List (SOL) and make the following comments:

#### General comments:

Skilled migration is an important complement to Australian universities producing graduate engineers. There was a severe shortage of engineers in recent times when there was a boom in the mining sector and migration of skilled engineers played an important role in fulfilling the demand for professional engineering skills. More recently, the national economy has stabilised and the need for engineers has reduced in the short term. However, a growing skilled engineering workforce will be needed to meet a number of emerging challenges including; the Government’s Innovation and Defence initiatives, the transformation of the manufacturing industry and the acceleration of infrastructure construction to accommodate the growing population in Australia. This skilled engineering workforce will need to be satisfied by both local graduates and skilled migration.

#### Specific comments:

The removal of Engineering from the SOL at this time would have a number of negative consequences.

(1) It is noted that the [AI Group indices](#) for both manufacturing and construction are rated as expanding and well above the low levels experienced up until 2015. The growth in demand for engineers in the defence sector, infrastructure sector and the energy sector is growing rapidly and a shortage would severely curtail Australia’s ability to respond. A state such as South Australia would be particularly impacted by an inability to re-position its industry to respond to the new challenges.

ACED Inc. is incorporated in New South Wales

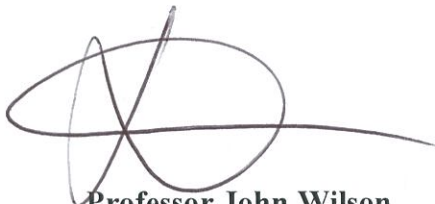
(2) The education of engineers requires at least a five year timeframe. The removal of engineering from the SOL would be a short term action with longer term implications, particularly on student recruitment and the graduate pipeline. It is noted that the demand for engineering jobs is often cyclical as exemplified by the mining industry where the recent downturn in demand has already bottomed out and iron and coal prices are rebounding.

(3) There are approximately 38,000 international students studying Engineering and Related Technologies which (at an assumed \$30k pa) represents approximately \$1B in income to the University sector. Many of these are influenced by the SOL and much of the surplus generated from educating these international students is used to augment the Government's and the student's contribution for domestic engineering students.

(4) The engineering industry is facing a generational replacement issue with an ageing workforce. Many engineers are reaching retirement age and the replacements will come from a blend of young graduates and experienced skilled engineers from overseas. Engineers Australia are currently developing a workforce development strategy to address this real concern.

In summary, ACED is strongly recommends that engineering remains on the Skilled Occupations list and we would be very pleased to discuss further.

Yours sincerely

A handwritten signature in black ink, consisting of a large, stylized 'W' or similar shape with a horizontal line extending to the right.

**Professor John Wilson**  
President ACED