



25 July 2025

The Hon Dr Jim Chalmers MP
Treasurer

Engineering is critical to lifting Australia's productivity

The Australian Council of Engineering Deans (ACED) submission to the Economic Reform Roundtable - August 2025

Dear The Hon Dr Jim Chalmers MP,

The Australian Council of Engineering Deans (ACED) represents the leaders of the faculties and schools of engineering at the 35 Australian public universities that offer accredited professional engineering degrees. Together, we are responsible for training over 100,000 engineering students currently pursuing accredited professional and research engineering qualifications in Australia.

The engineering supply problem

We refer to the recent *Engineering Tomorrow* report by Engineers Australia (2025)¹ and the *Shortages of Engineers and Supply Projections* paper from ACED (2021)², both of which highlight the contribution that engineers make to the domestic economy and the critical and worsening shortage of qualified engineers. At the time of the last census (2021) there were approximately 245,000 engineers working in the profession in Australia. The above-mentioned reports suggest that Australia will need to graduate approximately 60,000 more engineers by 2035, above and beyond the expected business-as-usual annual rate of graduates. *The bottom line is this: it has now become essential that we increase the engineering capacity of the Australian workforce to achieve economic growth.*

The engineering education challenge

For the engineering workforce to be adequately equipped with future-ready productivity-oriented engineers, the measures outlined in the ACED *Engineering Change*³ report (and forthcoming amendments) will need to be implemented. The transformation would address known skills shortages critical to infrastructure, digital, and climate-related national imperatives. It would include programs to attract and

¹ Engineering Tomorrow, Engineers Australia (2025): [engineering-tomorrow.pdf](#)

² Shortages of Engineers and Supply Projections, ACED (2021): [Engineer Shortages and Projections Dec 2021.pdf](#)

³ Engineering Change, ACED (2021): [2021 Engineering Change - The future of engineering education in Australia.pdf](#)



retain underrepresented groups (such as women, First Nations Australians, and regional students), and would coordinate across schools, industry, and government, all designed to meet the needs of the Australian economy in the decades ahead.

The potential added value

Based on ABS data, productivity commission reports, and engineering profession reports⁴, we conservatively estimate that engineering-related industries have a gross-value-added (GVA) contribution of 1/4 of Australia's GDP, or roughly \$450 Billion. These industries are directly and indirectly supported by a workforce of about 250,000 engineers (~2024 figures), suggesting a GVA per engineer figure of \$1.8 Million. If scaled linearly, 60,000 more engineers added to the workforce would provide industry capacity to support a GDP increase of \$108 Billion pa [60,000 x \$1.8 Million = \$108 Billion]. Allowing for diminishing returns, scaling costs, and market saturation, a reasonable estimate of actual value add would be about 30% of this figure, or \$32 Billion.

The investment

We call on leaders at the Economic Reform Roundtable August 2025 to recognise the value of engineers to improving productivity. We ask the Australian government to engage with the Australian Council of Engineering Deans, and to consider a multi-year funding package and framework for;

1. Increasing the number of engineering graduates by an additional 60,000 by 2035,
2. Improving and modernising engineering education to increase productivity.

An investment of \$2 Billion over 5 years would support programs that have potential to return up to \$320 Billion to the Australian economy over 10 years. We are prepared to provide a detailed breakdown and implementation plan outlining how the investment would be strategically allocated across the education and training pipeline to transform the engineering sector, and to produce 60,000 additional engineers by 2035.

We welcome your feedback on this submission and look forward to discussions.

Yours sincerely,

Professor Tim Finnigan
President, Australian Council of Engineering Deans

⁴ Eg. Engineers Australia (2022): [Engineers-Australia-Submission-Productivity-Inquiry-20221007-Final.pdf](#)