

SUBMISSION

Submission to the Department of Education

Submission on the Australian Universities Accord Terms of Reference consultation

19 December 2022

The Australian Academy of Technological Sciences and Engineering (ATSE) is a Learned Academy of independent, non-political experts helping Australians understand and use technology to solve complex problems. Bringing together Australia’s leading thinkers in applied science, technology, and engineering, ATSE provides impartial, practical, and evidence-based advice on how to achieve sustainable solutions and advance prosperity.

ATSE welcomes the opportunity to provide a submission to the Australian Universities Accord Panel on the Terms of Reference of the review. ATSE agrees with the proposed Terms of Reference. In this submission, ATSE highlights the importance of the following four Terms of Reference:

- **Meeting Australia’s knowledge and skills needs, now and in the future.**
- **Access and opportunity.**
- **Investment and affordability.**
- **Delivering new knowledge, innovation, and capability.**

ATSE will have further comments on the subject matter of the review when consultation is opened and looks forward to engaging with the review to support the successful development of the Universities Accord.

Meeting Australia’s knowledge and skills needs, now and in the future

Exciting and educating young people in STEM is a key priority for ATSE. The growing demand for highly skilled workers across Australia is clear, particularly in STEM fields such as engineering, where there is a current and growing skills crisis (Australian Academy of Technological Sciences and Engineering, 2022). To develop Australia’s technology-powered, human-centred future, it is critical that we unlock the full potential of our future workforce. As noted in the Terms of Reference, it is expected that 50% of newly created jobs will require a university-level qualification, making universities a key component of building this future. It is essential that Australian university graduates have the skills and knowledge they need to participate and succeed in the jobs of tomorrow, and that reforms are made to the higher education system to support these needs.

Access and opportunity

Improving access and opportunity to engage with the higher education system highlights the role of education as a transformative force for both individuals and their communities. While encouraging students from marginalised groups to undertake higher education, the sector must support these students to thrive as they undertake their study, and to succeed in careers beyond. This includes ensuring that university environments and teaching techniques are accessible for all students, including those students with disabilities. For example, as identified by the Australian Council of Learned Academies’ (ACOLA) report on Ensuring Occupations are Responsive to People with Disability, higher education providers should regularly review their institutions and programs against ACOLA’s Good Practice Guide for disability responsiveness training (Australian Council of Learned Academies, 2022).

A sector that consists of a wide range of people with varying backgrounds and perspectives can help to develop improved teaching and research methods. In seeking to increase inclusion of marginalised groups into the higher education sector, the panel should explore both macro and micro trends, allowing for the improvement of representation across higher education, while also addressing discipline specific inequalities including in STEM. The Panel should seek to engage Aboriginal and Torres Strait Islander communities to ensure proposed reforms are inclusive and fit-for-purpose to reach the Closing the Gap higher education target.

Investment and affordability

The university funding model needs to be optimised to ensure that it can provide Australia with world leading research and education. During the Job-ready Graduate Package consultation, ATSE noted that the use of fees as a market mechanism to alter students’ selected study areas was ineffective (Australian Academy of Technological Sciences and Engineering, 2020). The current funding scheme has increased running costs, increased student debt and misaligns university incentives, while failing to effectively direct students’ study choices (Norton, 2022). It is imperative that this funding model be urgently reviewed to better support students, researchers, and universities and to align funding models with outcomes in an evidence-based manner.

Delivering new knowledge, innovation, and capability

ATSE is committed to [enhancing research collaboration, translation and commercialisation](#). Ensuring that the entire research pipeline is properly supported, from fundamental research through to research commercialisation, will enable Australia to build a knowledge and technology-driven future. Australia's funding mechanisms, primarily through the ARC and NHMRC, have high time costs during application and extremely low success rates (19.1% for all ARC grants in 2022; Australian Research Council, n.d.) leading to high quality research not being funded and many researcher hours being wasted. It is critical to examine how Australian researchers can be best supported to produce a range of high-quality research at an international standard, and to align the outcomes of the Universities Accord with the concurrent review of the Australian Research Council (ARC).

References

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