

SUBMISSION

Submission to the House Standing Committee on Employment, Education and Training

Submission to the inquiry into the perceptions and status of vocational education and training

1 March 2023

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 review of inquiry into the perceptions and status of vocational education and training. ATSE recently released the [Our STEM skilled future: An education roadmap for an innovative workforce](#) report, which argued for the importance of developing a culture of lifelong STEM (science, technology, engineering and mathematics) learning, in which the vocational education and training (VET) sector must play a core role. This submission argues that adopting the recommendations of the 2019 expert review of Australia’s vocational education and training system would greatly improve both the utility and perception of vocational education, while greater integration between vocational education providers and other education providers (secondary and tertiary) would help break down distinctions that negatively impact perceptions of the vocational education sector.

ATSE makes the following recommendations:

Recommendation 1: The Australian Government amends the Australian Qualifications Framework to remove the hierarchy between university and vocational qualifications.

Recommendation 2: The Australian Government works with State and Territory Governments to develop and implement a national strategy to increase the cooperation and integration of vocational education with high schools and the university sector.

Recommendation 3: The Australian Government implements the recommendations of the 2019 expert review of Australia’s vocational education and training system.

Building a qualifications framework that values vocational skills

The vocational education system plays an important role in Australia’s education framework and for the individual students who engage in the sector. Many Australians are choosing to upskill through vocational education, with growth in enrolments in the vocational education sector outstripping that of the university education sector (White, 2022). The vocational education sector is the largest provider of STEM qualifications, with more than 3.5 million Australians holding a STEM qualification from the VET sector (compared with 3.1 million from the university sector; Office of the Chief Scientist, 2020). With the construction and manufacturing sectors being the largest employers of people with STEM VET qualifications (Office of the Chief Scientist, 2020), jobs requiring VET qualifications will be essential to upcoming nation-building projects. For example, the [National Reconstruction Fund](#) will require STEM skilled manufacturing workers to facilitate the development of local medical and advanced manufacturing, technicians to manage the deployment of new green energy technologies and a skilled IT workforce to enable capabilities across industries such as AI and robotics.

Despite this future demand and positive perceptions within industry, there remains a perception that VET is less important or valuable than a university-based education. Very few students feel that their parents think vocational education is the best pathway to a successful career, with 78% nominating university as their parents’ preferred option, compared with just 3% for VET alone (Year13 & YouthSense, 2019). Additionally, secondary schools regularly advertise themselves, or are [directly compared](#), based on their ability to get students into universities or to obtain high Australian Tertiary Entrance Rankings (ATAR), while few schools promote themselves on links to vocational training.

Much of this view is driven by the perception that university degrees are more valued by employers. This ingrained belief exists despite the earning potential of many vocational qualifications being much higher than some university qualifications, and many areas of vocational study being those with critical skills shortages. The [Australian Qualifications Framework](#) (AQF), which regulates higher education awards, ranks all vocational qualifications below university qualifications, reinforcing this hierarchical view. Amending the way in which these qualifications are presented within the AQF to ensure that it does not appear that

university-provided qualifications are superior to vocational may help to break down this perception. The AQF was reviewed in 2019, but the recommendations of that review were not implemented by the previous government. ATSE recommends consideration of the recommendations of this review as part of reforms to modernise the AQF. In particular, recommendations to allow flexibility of descriptors across different bands, and inclusion of additional descriptor categories, would help to better recognise the value of VET qualifications and skills training (Noonan, 2019).

Recommendation 1: The Australian Government amends the Australian Qualifications Framework to remove the hierarchy between university and vocational qualifications.

Developing collaborative partnerships to encourage lifelong learning

Greater integration between education providers at all levels would give students greater exposure to the opportunities provided through the VET sector, while also helping produce graduates with work-ready qualifications and practical skills. These skills will be crucial to managing the growing need for skills in vital industries, including engineering and information technology. There have been recent positive movements towards greater integration and cooperation between secondary schools and vocational education providers (e.g. allowing in-school VET qualifications to contribute towards HSC and ATAR scores; Polesel et al., 2019), however more work is still required to align our educational processes with international best practice. The German vocational education sector is highly integrated with schooling, with two-thirds of students enrolled in their dual-education system (Misko, 2006). By comparison, only 26% of Australia students plan to pursue vocational education (Year13 & YouthSense, 2019). Linking vocational education and training to schools may help facilitate access to post-secondary education for those who may not have considered it, particularly those from traditionally underrepresented or disadvantaged backgrounds. A national integration strategy should be developed to take a coordinated approach to incorporating vocational education into our nation's secondary schools. Due to the public nature of many VET providers as well as most secondary schools, such a strategy may provide direct state-based interventions to improve cooperation, while private providers may need to be incentivised (financially or reputationally) to engage with the strategy.

The value of VET should not be, and is not, limited to secondary school students and recent graduates. While VET is often sold to students as a pathway to university, the VET sector trains tens of thousands of university graduates each year (TAFE NSW, n.d.), including people who enter the VET system in mid-career; making VET both a pathway to university and university a pathway to VET. ATSE encourages the development of avenues that encourage lifelong learning (Australian Academy of Technological Sciences and Engineering, 2022), and greater collaboration between the VET and university sectors would provide one such avenue. Connecting education providers across sectors will help to develop education corridors that enhance opportunities to develop cross-institutional networks and community connections, while increasing the mobility of the workforce. Jointly managed and branded qualifications could help education providers combine resources and allow for the development of short-courses and micro-credentials that help meet industry demand for skills. When implemented in collaboration with existing VET providers, integrated VET and university-run courses may help to break down some of the hierarchical perceptions between VET providers and universities, while providing new opportunities for skill development and learning.

Recommendation 2: The Australian Government works with State and Territory Governments to develop and implement a national strategy to increase the cooperation and integration of vocational education with high schools and the university sector.

Upgrading our vocational sector to meet future workforce needs

In 2019, an [expert review](#) of the VET sector in Australia provided a series of recommendations that were designed to make the VET sector more responsive and adaptable to the needs of students and the Australian community (Joyce, 2019). ATSE has previously argued for a responsive system of short-term micro-credentials to upskill workers as technology and business practices develop (Australian Academy of

Technological Sciences and Engineering, 2022). Adopting this review's recommendations will help to make Australia's VET sector a key player in this growing market, allowing the VET sector to play a central role in up-skilling workers for changing workforce needs. This will be particularly important in supporting workers through the transition to green energy, to enable the building of a long-term green energy workforce (Australian Academy of Technological Sciences and Engineering & Australian Academy of Science, 2022).

The review also makes recommendations that will help to produce better careers information and clearer secondary school pathways, all of which will work to improve the perceptions of the VET sector within the community. To date, many of the recommendations of this review have yet to be implemented. Implementing the 2019 expert review would help to improve both the quality of the educational offerings provided by the VET sector and the perception of the public of the sector.

Recommendation 3: The Australian Government implements the recommendations of the 2019 expert review of Australia's vocational education and training system.

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