TAFE DIRECTORS AUSTRALIA

SUBMISSION to

Australian Government | Department of Industry, Science and Resources

STRATEGIC EXAMINATION OF RESEARCH AND DEVELOPMENT

11 April 2025

About TAFE Directors Australia

TAFE Directors Australia (TDA) is the national peak body that represents Australia's network of state and territory publicly owned Technical and Further Education (TAFE) institutes and university TAFE divisions. All TAFE institutes and TAFE divisions of dual sector universities across Australia are members of TDA. TDA members range from the largest registered training provider in Australia, TAFE NSW to regional TAFEs with significant geographical coverage such as North Regional TAFE (WA). The primary business of TDA members is vocational education and training focusing on nationally accredited qualifications and skill sets, non-accredited training for bespoke employer purposes, and foundation skills. Over half of TDA members also deliver higher education.

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Introduction

TAFE Directors Australia (TDA) welcomes the opportunity to provide feedback to inform the Strategic Examination of Research and Development (R&D). According to the Discussion Paper, Australia's potential for sustained growth in an increasingly skilled economy is constrained. The current R&D system is 'siloed'[1], and despite Australia performing comparatively well in research outputs, there is a mismatch between research being undertaken and the needs of Australian industry, government and community.

This submission will highlight the latent capability of Australia's TAFE sector as an overlooked, yet critical component of the R&D infrastructure. TAFEs have the potential to leverage established industry partnerships (with both large and small businesses) to contribute to Australia's R&D ecosystem and its future economy.

Applied research in TAFE

TAFEs have demonstrated capability in Applied Research, which is best understood as research that investigates, designs and applies solutions to real world problems. Applied research is valued by industry and community for its capacity to deliver and implement tangible and accessible outcomes. However, successful applied research requires specific expertise. Applied research is generally conducted outside of the traditional academic setting, involves interaction with stakeholders from diverse backgrounds in real-world contexts, translates scientific knowledge so that it is relevant and accessible, and applies scientific knowledge to develop innovative ideas, products and solutions[2].

Holmesglen TAFE

Holmesglen TAFE's Centre for Applied Research and Innovation supports researchers in collaboration with industry and not-for-profit partners to develop creative solutions to tomorrow's problems. Holmesglen has partnered with industry to deliver a number of wide-ranging projects from the health sciences through to building construction, hospitality management and small business, to sustainable water use.

Building 4.0 CRC, established in early 2020, involves a partnership between Holmesglen and an industry-university based consortium to create, through research, an innovation 'ecosystem' in building construction.

[1] Australian Government (2025). *Strategic Examination of R&D Discussion paper*. Strategic Examination of R&D independent expert panel. Available: https://consult.industry.gov.au/strategic-examination-rd-discussion-paper

[2] Marotti de Mello, A. and Wood Jr, T. (2019), "What is applied research anyway?", *Revista de Gestão*, Vol. 26 No. 4, pp. 338-339. https://doi.org/10.1108/REGE-10-2019-128

Holmesglen has been working with its partner organisations to develop research proposals that will support the development of training programs in the use of new technologies (including digital technologies); innovations to work processes; and policy and regulations improvement.

For Holmesglen emphasis has been placed upon:

- Integrating Digital Literacy into Trade Training and the critical factors that need to be considered when deciding what extended reality technologies should be used to augment the training of learners undertaking building and construction programs.
- Modernising building construction and the future of education and training in the 'digital age'.

Healthscope partnership

Holmesglen TAFE has partnered with large health service provider, Healthscope to conduct a program of applied research including:

- A public-private partnership to prevent falls in Australian hospitals.
- JasperTM: A Virtual Reality Simulation Programme for Vocational & Higher Education in TAFE.
- A project to 'establish an interprofessional ward round protocol and education programme for the diagnosis, risk factor assessment, and collaborative management of delirium in post cardiac surgery patients'.
- An expansion of the integrated practical placement programme for young people with a disability in conjunction with the Royal Children's Hospital.
- Building employer confidence and expanding horizons (disability/education/employment).
- The 'motivations of first year nursing student enrolment during a global pandemic'.
- Intraprofessional learning.
- The Future Ready project (Health/nursing): collaboration with the Victorian Skills Authority for the Care Economy skills lab, and
- The formulation of a Collaborative Online International Learning (COIL) project between Holmesglen Institute in Victoria and Grande Prairie Regional College in Alberta, Canada.

In 2023, Holmesglen TAFE was recognised by the World Federation of Colleges and Polytechnics with a Gold Award for Applied Research.

TAFE is uniquely positioned to partner with industry to conduct applied research. The legislated standards and national curriculum which underpin TAFE education and training necessitate a scale of ongoing and reciprocal engagement between TAFE and industry which is unique to the Australian tertiary education sector. TAFE educators are required to maintain

their vocational expertise through strong connections to employers and industry. The strength of these relationships enables them to conduct research, innovate, and solve problems - *with* and *for* industry, on topics of importance to industry. TAFE is a trusted and credible partner which speaks the 'language' of industry, allowing research to be translated and disseminated with immediate and practical results.

TAFE Centres of Excellence

As an outcome of the Commonwealth's National Skills Agreement, TAFE Centres of Excellence (TCoEs) have been established to lead the development and dissemination of best practice solutions to critical and emerging workforce issues and to enable applied research and innovation[3]. TCoEs are nationally networked, with established connections to other TAFEs, universities, industry and Jobs and Skills Councils[4].

TAFE Queensland

TAFE Queensland leads two national **TAFE Centres of Excellence**:

- TAFE Centre of Excellence Health Care and Support; and
- TAFE Centre of Excellence Clean Energy Batteries

The centres, which were established late 2024, do not refer to standalone facilities; rather, they represent a network of stakeholders and partners with specialised expertise and capability, including applied research.

TAFE Queensland staff actively conduct and disseminate research, including hosting an annual Scholarship of Learning and Teaching conference. The 2024 Book of proceedings is published here: https://tafequeensland.eventsair.com/2024-solt/book-of-proceedings.

Eleven TAFE Centres of Excellence have been announced to date, addressing priority industry areas of clean energy, manufacturing, construction, defence, electric vehicles, early childhood education and care, and health care and support. TCoEs are still in their infancy, having been progressively established during late 2024 and early 2025. For TCoEs to realise their potential and meet their outcomes, and to ensure that their critical work can be sustained into the future, it is now necessary for TAFE's unique value proposition in industry-partnered research

[3] Commonwealth Government (2025) TAFE Centres of Excellence Federal Funding Agreement – Education and Skills. Available https://federalfinancialrelations.gov.au/sites/federalfinancialrelations.gov.au/files/2025-03/TAFE%20Centres%20of%20Excellence.pdf

[4] Commonwealth Government: Department of Employment and Workplace Relations (2025). *TAFE Centres of Excellence.* Available: https://www.dewr.gov.au/national-skills-agreement/tafe-centres-excellence

to be recognised within the R&D ecosystem, and to ensure TAFE's ongoing and equitable access to appropriate research-related funding and opportunities.

TAFE SA

TAFE SA lead the **TAFE Centre of Excellence in Early Childhood and Care.** The purpose of the centre is to partner with sector stakeholders in a range of activities and deliverables relating to the early childhood and care sector, including applied research and innovation.

TAFE SA have demonstrated capability in other industry-partnered research projects.

- **Improving food in aged care:** TAFE SA partnered with the **Maggie Beer Foundation (MBF)** to undertake an applied research project (funded by the **South Australian Government)** to enhance food quality and dining experiences for residents of aged care facilities.

- **Nanotechnology and Nanofabrication Technicians:** Partnered with Australian National Fabrication Facility (ANFF) to investigate skills gaps and targeted solutions to support Australia's expanding skills needs for the nanofabrication and nanotechnology industries.

TAFE's demonstrated capability

Applied research is an essential and embedded (yet often unfunded and overlooked) activity within Australia's TAFE sector. TAFE educators participate and lead applied research activities as a means of improving learning and teaching, and to innovate and solve real-world problems through industry engagement and partnerships. For example, the Victorian TAFE Teachers' Enterprise Agreement[5] specifies Applied Research as an approved education-related duty which can be included in a teacher's allocated workload. The curriculum of approved higher-level teaching qualifications for Victorian TAFE Teachers must include outcomes relating to Applied Research.

[5]Victorian TAFE Teaching Staff Agreement 2018. Available: https://vta.vic.edu.au/victorian-tafe-teaching-staff-agreement-2018/

International Specialised Skills Institute (ISSI)

Each year, a small number of TAFE researchers are supported to conduct international research in skills shortage areas through fellowship programs administered by the **International Specialised Skills Institute (ISSI).** Eligibility criteria varies according to the fellowship opportunity and sponsor, and findings are reported via a publication housed on the ISSI website.

65.82% of ISSI Fellows conduct research relating to **industry innovation**.

Academic research outputs are predominantly demonstrated by scholarly publications in peer-reviewed journals; however, TAFE-led applied research is most often 'research-in-action', with results rapidly applied to the vocational or industry context. Innovations are often iterative and immediately implemented. Without funding to support the lengthy process of reporting and publishing reviewed research, the published body of knowledge does not adequately reflect the volume or impact of applied research conducted by TAFE.

William Angliss Institute

William Angliss Institute supports educators to undertake a broad range of research relating to their vocational discipline in the fields of foods, hospitality, tourism and events.

The research is used to improve learning and teaching while leveraging engagement with industry, academic and public communities.

Barriers which constrain TAFE research activities

Without formal recognition of its place within Australia's R&D ecosystem, TAFE-led research will continue to be constrained by the funding policies which support or deny participation. Although TAFEs exhibit demonstrated ability to broker industry partnerships for smaller scale projects, their participation in Commonwealth or State-based funded projects is usually reliant upon the benevolence of university partners, often with good intentions, but frequently as a token gesture of inclusion, or to 'tick a box' of collaboration.

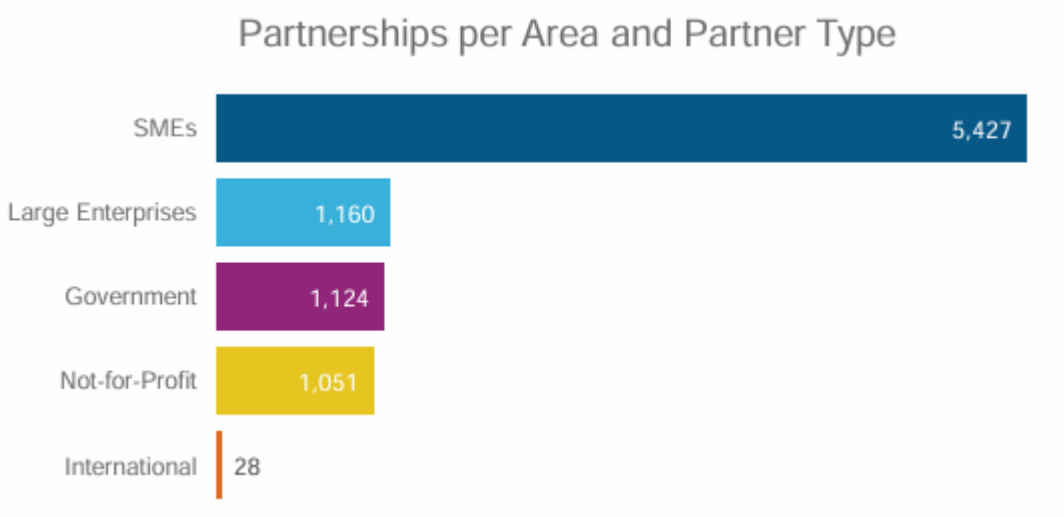
An adequate understanding of the TAFE context is needed for a fully collaborative partnership. TAFEs are most often included as 'in-kind' contributors, committing physical and human resources to projects without access to the funds necessary for full participation. These restrictions limit TAFE's ability to participate in R&D projects, and in turn, constrains the capability development of TAFE researchers.

International example: Applied research in Canadian colleges

International models provide further insight into the potential of TAFE-led research and the benefits of a structured mechanism for support. Canada's research and innovation ecosystem embeds Canadian colleges and institutes (comparable to Australian TAFEs) as critical research infrastructure with unique characteristics and capabilities. Colleges are recognised and valued for their demonstrated skills in applied research, an approach described as 'partner driven, business friendly, and efficient'[6]. Specific funding for applied research activities is available to Canadian colleges and institutes, administered[7] through the College and Community Innovation (CCI) program.

The model has been highly successful, with timely results and implementation outcomes. Most Canadian college applied research partners are SMEs, however partners also include large enterprises, government and not-for-profit organisations, as indicated in Figure 1.

Figure 1: Canadian College Applied Research Partners (2021 - 2022)[8]



SMEs fund 55% of R&D in Australia (refer Figure 2). The higher proportional rate of investment by Australian SMEs is not unexpected, given that large businesses comprise just

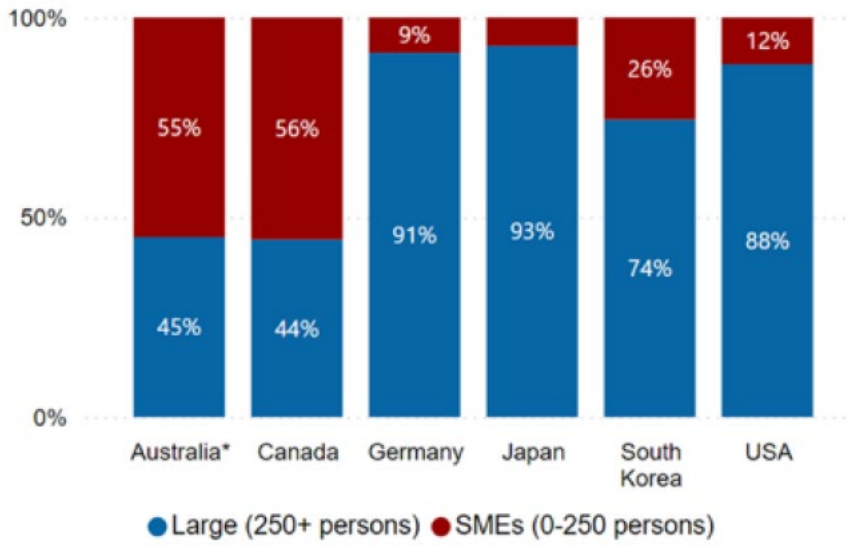
[6] Colleges & Institutes Canada (2024). *Harnessing applied research to meet Canada's challenges: submitted to the Standing Committee on Science and Research.* https://www.ourcommons.ca/Content/Committee/441/SRSR/Brief/BR13103081/br-external/CollegesandInstitutesCanada-e.pdf (p.2)

[7] https://www.nserc-crsng.gc.ca/NewsDetail-DetailNouvelles_eng.asp?ID=1470

[8] Colleges & Institutes Canada (2024). *Harnessing applied research to meet Canada's challenges: submitted to the Standing Committee on Science and Research.* https://www.ourcommons.ca/Content/Committee/441/SRSR/Brief/BR13103081/br-external/CollegesandInstitutesCanada-e.pdf (p.3)

0.2% of all Australian business (refer to Figure 3 - size calculated according to employees). Although one of the goals of the Strategic Examination of R&D is to engage a higher proportion of large business investment in R&D, given the business size and investment statistics cited, development of an Australian R&D ecosystem that can support innovation and sustained growth for SMEs should also be an important consideration for the Commonwealth. The results of the Canadian model indicate the potential for Australia's TAFE sector to meet the needs of SMEs while also developing R&D partnerships with large enterprises.

Figure 2: Proportion of BERD by business size[9]



Source: ABS, Research and Experimental Development, Businesses; OECD Research and Development statistics
**The Australian Bureau of Statistics (ABS) defines large businesses as 200+ persons, international records set the threshold at 250 persons.*

[9] Australian Government (2025). *Strategic Examination of R&D Discussion paper*. Strategic Examination of R&D independent expert panel. Available: https://consult.industry.gov.au/strategic-examination-rd-discussion-paper (P. 27)

Figure 3: Australian business size measured by employment in June 2024[10]

Number of employees	Number of businesses	% of total businesses
Small business (0-19 employees)	2,589,595	97.2
Medium business (20-199 employees)	68,214	2.6
Large business (200+ employees)	5,189	0.2
Total	2,662,998	**100**

Source: *ABS Counts of Australian Business*, Table 13a, August 2024 and ASBFEO calculations (excludes businesses that are not registered for GST).

The potential for TAFE to expand R&D access and reach

In Canada, the expansion of research capability to include its network of colleges and institutes has enabled a larger footprint for R&D capacity and activity. In turn, Canada's distributed model has improved access to R&D for Indigenous people and those living in rural and remote communities[11]. With Australia's extensive and distributed TAFE network, there is potential for similar impact, thereby improving access to R&D for Australian First Nations people and those living outside of metropolitan centres, as well as providing a greater opportunity to honour and elevate First Nations knowledge and leadership in applied research.

Research without funding

TAFE research activities and the ongoing development of its research capability are constrained due to structural and policy barriers which include restricted access to funding. Unlike Canada there is no systematic support for TAFE or for the contribution of small business in applied research.

The criteria and policy structures that frame existing research funding programs, such as the National Competitive Grants Program (NCGP) which is overseen by the Australian Research

[10] Australian Small Business and family Enterprise Ombudsman (2024). *Number of small businesses in Australia.* *https://www.asbfeo.gov.au/sites/default/files/2024-09/Number%20of%20small%20businesses%20in%20Australia_Aug%202024.pdf* (p. 2)

[11] Colleges & Institutes Canada (2024). *Harnessing applied research to meet Canada's challenges: submitted to the Standing Committee on Science and Research.* https://www.ourcommons.ca/Content/Committee/441/SRSR/Brief/BR13103081/br-external/CollegesandInstitutesCanada-e.pdf (p.2)

Council (ARC), are not accessible to TAFEs, except as 'in-kind' (i.e. non-funded) contributing partners supporting university-led projects. TAFE teachers may undertake research activities as a means of engaging authentically with industry partners, but the lack of financial support creates a personal burden on the individuals involved, and limits promotion and dissemination activities, and therefore research impact.

Recommendations

In this submission, we have outlined the untapped capacity of TAFE to contribute to Australia's R&D activity and impact through strategic industry partnerships. Although usually conducted without funding or promotion, TAFE-led applied research contributes to industry innovation and problem-solving, while enabling the development of a future-ready workforce.

However, TAFE research activities and the ongoing development of its research capability are constrained due to structural and policy barriers which include restricted access to funding and appropriate recognition of TAFE as a key component of Australia's innovation and R&D ecosystem.

We make the following recommendations:

1. **Formal recognition of TAFE's capability and value in Australia's research and development ecosystem.**
   TAFEs should be recognised for their existing, demonstrated capabilities, and supported to further develop and extend these capabilities. TAFEs should be valued for the industry partnerships as well as the industry knowledge and skills that TAFE educators, as current industry experts, bring to the research table. TAFEs should also be recognised as publicly funded research entities for the purposes of Federal Government R&D industry tax incentives.

2. **Targeted funding for TAFEs only, to seed research and to support the development of essential infrastructure and capability.**
   We recommend that funding is made available through a competitive grant process, accessible to TAFEs only. The funding should be available to seed research activities, implement programs to support the development of TAFE research capability, and to acquire essential infrastructure to support research activities in partnership with industry (including SME).

3. **Continued support for TAFE Centres of Excellence.**
   The activities and projects undertaken through TCoEs will yield both short- and long-term R&D impact, strengthen industry partnerships and investment in R&D, and addressing critical industry and workforce issues. It is necessary to ensure their continued funding and/or continued and equitable access to research grant programs as an essential component of the R&D ecosystem.

4. **Revision of the National Competitive Grants program to support TAFE applications for research grants.**
   The policy framework and eligibility guidelines for the National Competitive Grants Program (administered by the ARC) should be revised to include categories suitable for TAFEs to apply as full, funded partners in research activities.

Conclusion

Thank you for the opportunity to comment on the Strategic Examination of Research and Development (R&D). In this submission, we have highlighted the demonstrated capability and as-yet unrecognised potential for TAFE-led research. We have also identified the opportunities associated with formal recognition of TAFE as a critical contributor in Australia's R&D ecosystem.

TAFEs' potential to leverage its existing industry expertise and already established industry partnerships with small, medium and large employers, along with the accessibility and reach afforded through its extensive geographical footprint, provides real potential for a growth in TAFE-led R&D and associated economic impact.