To: Ministry of Education (by email to vocationaleducation.reforms@education.govt.nz)

Subject: Submission on Options for the Future of Work-Based Learning

From: Infrastructure Sector (Civil Contractors NZ, Water NZ, Electrical Networks Aotearoa, Electrical Engineers Associations, MinEx, Straterra)

Date: 21 February 2025

Key Messages:

The infrastructure sector supports industry led, in-work learning and employer managed workforce training.

Option B, with a standalone infrastructure ISB, which includes the extractives industry, is our preferred model. This meets the needs of our employers and trainers and provides an assured ongoing pipeline of trainees and workforce at this critical time in New Zealand infrastructure growth.

The infrastructure industry supports the independent learning model. We believe the complexities of the collaborative model could result in industry disengaging from training to a national standard within the New Zealand Qualifications Framework (NZQF) as there is no clear regulatory mandate, across the sector, to qualify staff. New Zealand Qualifications are portable across New Zealand which is key for cost management and rapid infrastructure response.

The infrastructure sector has concerns that the cost and time to draw current industry based training into the polytechnic model (Option C) carries significant risk and will lead to gaps in training. Industry may disengage with a confusing service model. Will government manage these risks?

Industry is prepared to work with government to support the set up and transition to a delivery model that meets the vocational educational needs of industry and trainees.

Establishing a Standalone Infrastructure ISB

- Infrastructure is distinct from general construction, requiring specialised workforce planning and training.
- Government has made infrastructure a priority with the establishment of the Regional Infrastructure Fund, Fast Track Infrastructure projects, the Electrify New Zealand policy platform, and the associated changes to the Resource Management Act. Our sector is large and critical to New Zealand growth. With a breath of skills and programmes to enrol into, we have the scale to have a dedicated ISB that has a focus on infrastructure.

- Having a dedicated ISB would ensure the agility, industry responsiveness, and effective skills development the sector needs to support government infrastructure priorities.

Supporting Independent Work-Based Learning

- History and international evidence shows infrastructure industry led, in-work employer managed training, such as currently occurring with Connexis, is both more efficient and effective than a polytechnic-integrated model.
- Employer managed, in-work learning reduces complexity, supports regional access, and encourages innovation.
- History indicates the polytechnic' model is expensive to run, administratively heavy and insufficiently nimble to support industry in training and apprenticeships.
- The current polytechnic model is designed to have people in classrooms. To date, in classroom or online training has not been able to cater for trainees who are in full time employment.
- Effective pastoral care models which are already working well in industry with in-work training need to be maintained to ensure we do not see negative impacts on training uptake or increased withdrawals from training or duration of programme completions.

Funding:

- Infrastructure training is high input within the workforce and essential for national productivity and resilience. Industry have always supported industry based training and will continue to train. For the best national outcomes, this training should be completed within the NZQ framework.
- Previous models of funding, based on sales targets, do not adequately support infrastructure training which has lower enrolment numbers but high relevance and impact to NZ Inc. Sales models, focussed on enrolled trainees can disadvantage in-work trainees as funding is inadequate for course design, onsite assessment and high quality moderation.
- Prioritising infrastructure funding by supporting the establishment of standalone ISB and independent work based learning through industry / government partnerships ensures New Zealand's workforce is equipped for future demands. This is the most effective solution for government as industry will support and invest in a system they have visibility over and input into.
- We have concerns that reducing funding to both ISB and Independent Work-based Learning (our preferred model) will result in reduced trainee numbers and a disengaged, fragmented and poorly equipped workforce. This will in turn lead to increased infrastructure costs, decreased national resilience and increased budget overspend on major projects

- We are concerned that a lack in funding for any trainee / apprentice scheme will limit the success of any vocational education reform. Adequate funding is imperative to ensure trainee success, and with that industry success.

Introduction

The infrastructure sector is the backbone of New Zealand's economy, enabling productivity, resilience and long-term growth. We collectively represent industries responsible for civil construction, three waters, electricity engineering and electrical networks, quarrying and mining.

These industries require a **dedicated approach to vocational training** to ensure the workforce is equipped to meet **current and future infrastructure demands**.

We support the **establishment of an Industry Skills Board (ISB)** and **advocate for a standalone Infrastructure ISB** to address our sector's unique needs. Additionally, we support **independent work-based learning** to **ensure training remains industry-led and fit for purpose**.

The Case for a Standalone Infrastructure ISB

1. Infrastructure is Distinct from General Construction

- Infrastructure covers **critical sectors such as transport, water, and energy, quarrying and mining** which differ structurally, commercially, and philosophically from vertical construction.
- Training needs, skill sets, and workforce planning are **specialised and require a dedicated ISB** to ensure agility and alignment with industry needs.
- The ISB must work closely with industry to keep training aligned with industry needs, **develop qualification, undertake workforce strategic analysis, and skills forecasting** to support industry needs.

2. Addressing Workforce Shortages & Skills Gaps

- The **infrastructure sector faces severe labour shortages** due to an aging workforce and increasing demand for skilled workers to meet future infrastructure needs.
- A standalone ISB would enable **targeted workforce planning, skills forecasting, and industry-responsive training development**.
- The ISB should have a **workforce promotion function** to attract new talent, address misconceptions about infrastructure careers, and highlight career progression opportunities.
- The sector needs more people **employed in, and engaged in, in-work industry led training** programmes and supported apprenticeships.

3. National Productivity & Economic Growth

- Infrastructure is the foundation upon which **all other industries rely**, making it a **national priority**.
- Delays and inefficiencies caused by a **lack of skilled workers** directly impact New Zealand's **economic productivity, investment, and competitiveness**. Workers are literally needed to keep the lights on and the water flowing. We cannot rely on immigration to fill this need and must train and develop our own people in an agile industry focussed qualification and programme structure.
- People who attend off job courses in polytechnics cannot be actively engaged in building and operating critical infrastructure. The net effect is a productivity loss with increased project time and disengagement from the **"real classroom" which is on-job**.
- A lack of workforce development in infrastructure will **increase costs, extend timelines and lower overall quality**, affecting both public and private investments.

4. National Resilience & Disaster Preparedness

- Locally skilled infrastructure workers are essential for **building and maintaining disaster-resilient infrastructure**. Neither the Christchurch nor Kaikoura state highway re-builds could have occurred without people in employment and simultaneously training within their roles.
- Without adequate work based training, New Zealand risks **longer recovery times** from earthquakes, floods, and other extreme weather events.
- A weakened infrastructure workforce would reduce the country's **capacity to maintain and repair essential services**, jeopardising public safety.
- New Zealand's infrastructure assets have decades long lifetimes. Ongoing investment in training and development ensures these assets reach their lifetime potential.

5. Ensuring Agility & Responsiveness

- The ISB must be **sufficiently resourced to adapt swiftly** to industry demands, including rapid qualification development and updates.
- A **sector-specific ISB** would allow for **more effective workforce promotion**, addressing industry misconceptions and attracting diverse talent.

Support for Independent Work-Based Learning (Option B)

1. Industry-Led Training is More Effective

- Employers play a **critical role** in training delivery, ensuring **practical, job-ready skills**.
- **In-work, employer managed training** has proven more effective than classroom-based models for infrastructure training as it better meets the needs of the trainee and the hands on nature of the work.

- The existing work-based learning structures are understood by industry and trainees. Disruption must be minimised to ensure training continues in an effective manner and continues to provide good employer support
- Infrastructure trainees are practical learners. In classroom or online learning does not meet the learner needs and will result in a loss in trainee engagement and progress. Studies demonstrate that digital literacy is an issue for this sector. This must be considered in any re-design of the system and subsequent learning programmes.

2. Avoiding Complexity & Bureaucracy

- A **collaborative model** (integrated with polytechnics) would create **unnecessary complexity** and confusion for employers and trainees.
- For trainees and employers, the industry requires a **single, streamlined point of engagement** rather than navigating multiple providers.

3. Supporting Regional Access & Innovation

- Independent in-work training ensures **regional accessibility**, allowing learners to **train while working in the location where they are needed**.
- It also encourages **training providers to innovate**, improving efficiency and learning outcomes.
- The system should maintain **choice in training providers**, including **Private Training Establishments (PTEs) and Wānanga**, to allow flexibility in learning pathways and locations.

Funding

- Failure to invest in a model for industry training, that industry believe in and supports will lead to **deteriorating infrastructure quality, higher maintenance costs, and increased safety risks**
- Infrastructure training is essential, and often requiring **specialised equipment which industry provide through effective industry led training.**
- History indicates that polytechnics will be reluctant to offer low volume, high cost specialist training, meaning access to this training is likely to be significantly reduced.
- Underfunding infrastructure training risks reducing national self-sufficiency in critical infrastructure projects. While it is widely recognised that New Zealand has an infrastructure crisis, there are insufficient trainees coming into the industry and a lack of incentives for continuous training and development
- **International models** (e.g., Singapore and Germany) demonstrate that **prioritising critical sectors** leads to **strong workforce quality and economic returns**.
- If these reforms are well funded, trainee-centric, with demonstrated career pathways through the ongoing involvement of employers the outcomes would be better cost-management, improved resilience and shorter project timelines.

Transition

- Reform of vocational education has been ongoing for multiple years now and reform fatigue is real, with some parts of the sector more negatively impacted than others. Retaining the good faith of employers is an important consideration and our members have asked that we advocate for a smooth transition to allow them to continue their work.
- Existing divisions of **Te Pūkenga already operate independently**, meaning a transition to standalone providers would be straightforward with minimal disruption.
- Connexis, our work based learning provider was an early mover during the transition to the Te Pukenga model. This transition was seamless with a **lift and shift model** used retaining most parts of the business, except for standard setting. **This transition saw little staff disruption, and no disruption to industry who continued to engage as they had, receiving excellent service.** The infrastructure industry recommends this approach is taken again and **we re-establish Connexis as our PTE** to support the infrastructure industry through a crown / industry partnership.
- Currently, polytechnics are not geared up to, nor qualified to, provide pastoral care for infrastructure learners. Pastoral care for in-work learners is different to in classroom/online learners and requires an holistic approach. We do not see that polytechnics could gear up for this within the suggested 12-month frame given the current limitations, potential future financial constraints, and the instability of a changed organisation.
- Given the significant investment required it is inconceivable that the proposed 12 months will be sufficient time for transition, putting the industry at significant risk in the interim. The financial cost for this is unknown but the potential wider cost to a critical industry could be catastrophic. If collaborative learning was the only way forward, infrastructure should be exempt from this process until 2030 to allow the transition to be managed in a way that does not impact other work of national significance.
- We also have concerns that polytechnics do not have industry experienced and qualified staff available to support the learning outcomes our sector needs. This has been the industry's direct experience with historical attempts at in-class delivery which has ended up not being led by industry experts despite good intentions.
- Previous infrastructure specific training to trainees via block course and online while in work was poor, failed to meet learner needs and created disengagement between industry and the Polytechnics.
- The industry has invested significant time and money in establishing relationships with the current WDC staff to accomplish good training outcomes. In line with ensuring a smooth transition for employers we believe that key relationships should be protected.
- Te Pukenga currently holds significant financial reserves, much of which was contributed by industry in good faith to improve training outcomes. These funds must be returned to industry or re-invested directly into infrastructure training.

Conclusion

To ensure the success of vocational education reforms, we recommend:

1. **Establishing a standalone Infrastructure ISB** to provide dedicated workforce planning, skills development, and industry alignment.
2. **Implementing an independent work-based learning model** that is **industry-led** and avoids unnecessary complexity and which best supports in-work training.
3. **Maintaining choice in training providers**, including **PTEs, Wānanga, and independent providers**, to ensure flexibility and accessibility in learning locations and pathways.
4. **Recognising the risks that an overly complex infrastructure training model risks industry disengagement**, including poor trainee and apprentice outcomes, **labour shortages, project delays, weakened national resilience and potential negative impacts on national consistency of training.**
5. **Ensuring** the funding model used for vocational education is not focussed on trainee enrolment volumes.
6. **An overly complex training model, which is insufficiently funded will also contribute to a net loss of people moving into industry and away from New Zealand to seek better education and employment opportunities.**
7. **We need the sector and potential funding partners to have confidence in the quality and longevity of infrastructure operations in this country. This relies solely on having qualified, competent people on the tools.**

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