



**RINGA HORA**

**Services**

Workforce Development Council

# Addressing the Needs of the Aviation Workforce



## Purpose

This paper proposes a suite of recommendations for developing a holistic and future-focused Aviation Workforce. The aim is to put forward a set of coordinated, industry-led recommendations to address long-standing workforce challenges and position the aviation industry for long-term viability.

## Aviation Context

### New Zealand Relies on Aviation Economically and Socially

New Zealanders rely on a high-performing and resilient aviation industry. Like electricity, water, and roads, air connectivity is part of New Zealand's critical infrastructure – without it, the economy could not function.

As a small, isolated island nation far from many of the world's major markets, we rely on air transport to link us to the global markets and participate in global value chains. The aviation industry contributes 5.6% of New Zealand's GDP and employs around 14,000 people across aviation and airport services roles<sup>1</sup>. It is also a key enabler across the following areas:

- 1. Trade and Export Value**  
Air freight supports the export of high-value, time-sensitive goods, often worth 50 times more per kilogram than sea freight.
- 2. Tourism and Hospitality**  
Nearly all international visitors arrive by air. Tourism accounts for 4.4% of GDP and 17.2% of total exports<sup>2</sup>.
- 3. Innovation and Aerospace Development**  
Companies like Rocket Lab, Dawn Aerospace, and Kea Aerospace position New Zealand as a global aerospace innovation hub.
- 4. Economic Connectivity and Growth**  
Air connectivity boosts productivity, foreign direct investment, and regional development.
- 5. Resilience and Public Safety**  
Aviation plays a vital role during emergencies and natural disasters, ensuring supplies and people reach where they are most needed—particularly in isolated regions.

### Aviation Ecosystem Mapping

While aviation is vital to New Zealand's economy and connectivity, the sector faces persistent and complex workforce pressures that threaten its long-term sustainability and growth. To illustrate the interconnected nature of these issues, we have mapped the aviation ecosystem into key industry segments. The map highlights the high degree of interdependence between operators, training providers, regulators, and support agencies that together sustain New Zealand's aviation capability. Each component—from flight training schools and maintenance engineering firms to air traffic control, airport operations, and aerospace innovation—depends on a continuous flow of skilled people whose qualifications are globally recognised and whose work underpins the safety and performance of the wider transport system.

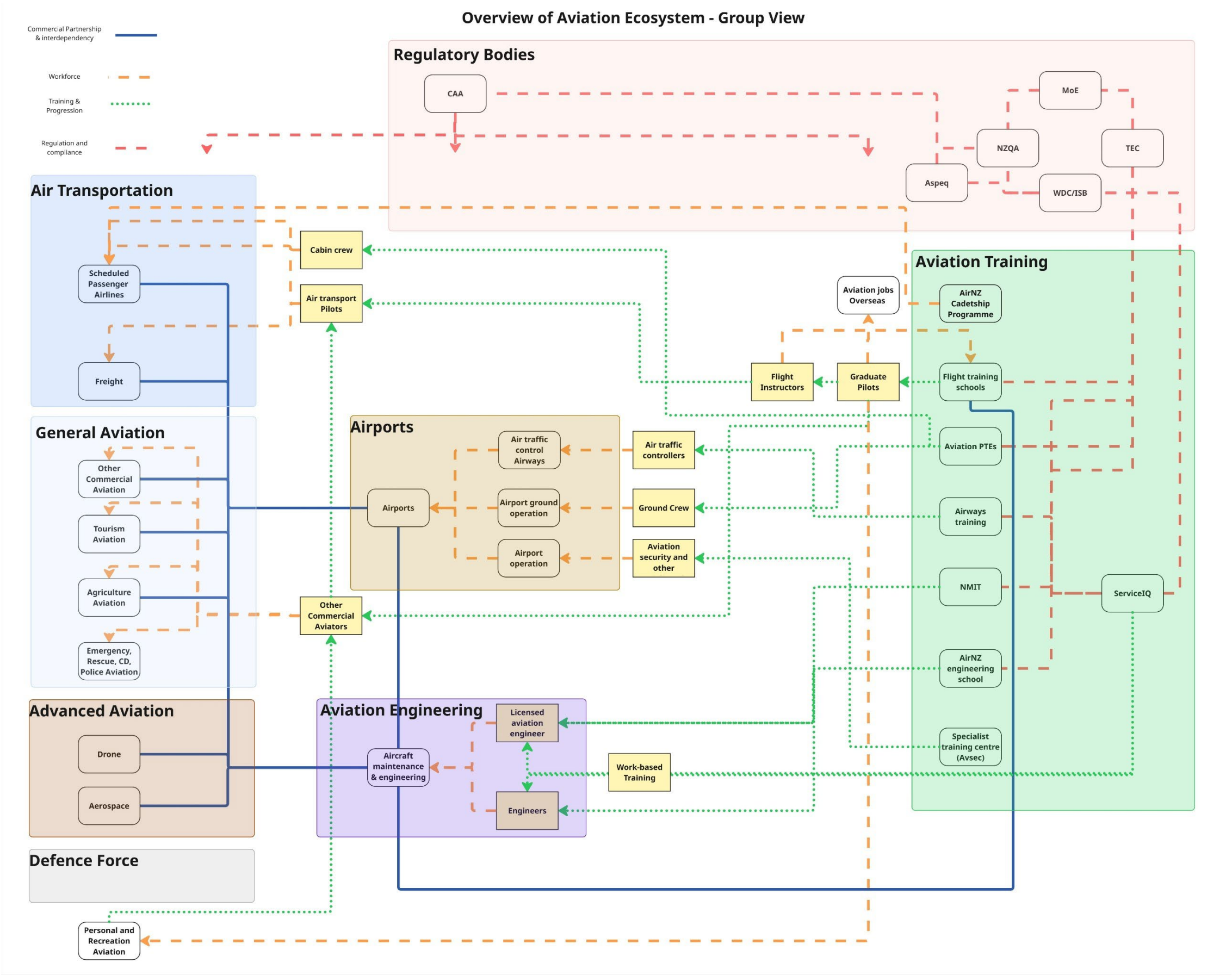
---

<sup>1</sup> Ringa Hora – Industry Workforce overview [Aviation-and-Airport-Overview\\_Final.pdf](#)

<sup>2</sup> [Tourism satellite account: Year ended March 2024 | Stats NZ](#)

Aviation Ecosystem Mapping

Adopting a system approach for this work, the Aviation Ecosystem Map below sets out a depiction of the full landscape of the aviation industry in New Zealand, including national and regional airlines, engineering and maintenance services, airport operations, general aviation, training, and regulatory functions. Also noting that the International Civil Aviation Organisation and the Ministry of Transport have overarching system stewardship roles.





Aviation Ecosystem Mapping – Detailed Narrative

Air Transportation

This is by far where the largest segment within Aviation industry and are often the desired destination for pilots and engineers (after they have acquired the necessary credential). AirNZ is the largest operator with around 80% of market share. Jetstar/Qantas holds a small market share and serves the main centres as well as routes into Australia. There are also 7 regional airlines and two major air freight operators in NZ.

General Aviation

This segment of the industry ranges from scenic flight operators, commercial skydiving operators, agriculture aviation, to rescue and emergency flight operators. They play vital roles in supporting the growth of tourism and primary industries as well as responding to adverse events. These operators also play an integral role in supporting graduate pilots to accumulate the necessary flying hours to help secure more permanent positions in the industry.

Advanced Aviation

This includes new and advanced technology operators such as drones, aerospace, and uncrewed aircraft. This segment of aviation has grown rapidly. NZ is one of the global leaders in aerospace aviation.

Defence Force

NZDF continues to be a core pillar of NZ aviation and a key entry point for many students into the industry - particularly for those interested in pilot and engineering pathways. EX Defence force aviation talent forms a key part of the NZ aviation workforce.

Regulatory Bodies

CAA is the regulatory body that ensures everyone involved in NZ aviation meets the standards. The training parameters (qualification, pilot caps and resourcing) is set by MoE, TEC, NZQA and Ringa Hora. Aspeq is also contracted by CAA to deliver pilot and aircraft engineering examinations. Other government agencies such as Immigration NZ and Customs also set parameters that significantly impact the industry

Airports

NZ's geography and low population density means that air connectivity is a vital part of our national infrastructure. There are over 130 airports/aerodromes:

- 3 large international airports
- 3 small international airports
- 22 regional airports
- 103 Aerodromes
- 2 Military bases

Aviation Training

Aviation training is not only the foundation of the aviation industry in NZ, but also an export education industry in its own right.

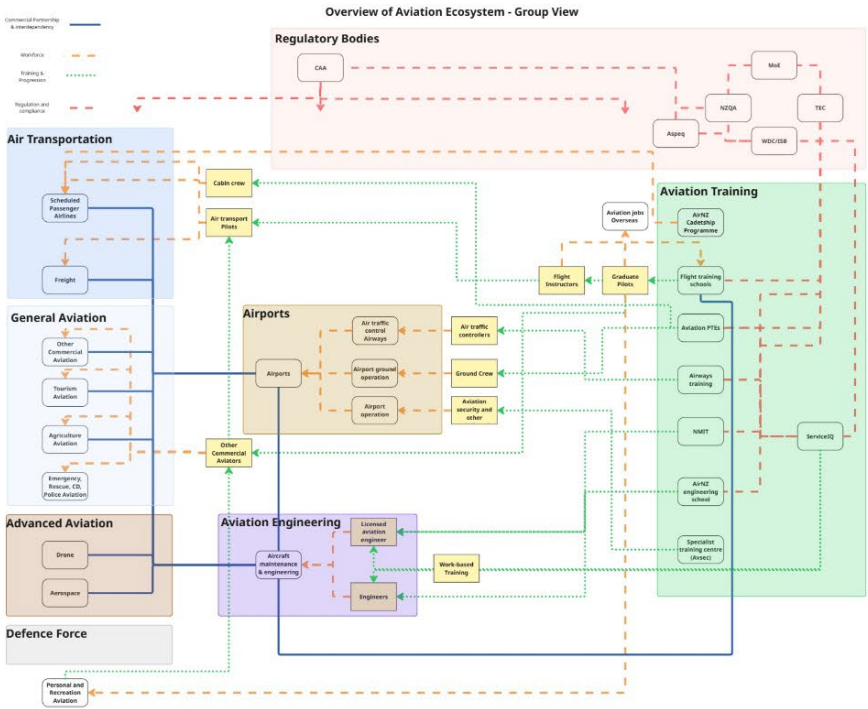
**For pilots:** 11 flight training schools and Massey University receive funding from TEC for pilot training (450EFTs) roughly producing 120 commercial pilots per annum. In addition to this provision, there are a handful of other PTEs that support full fee paying domestic and international student pilots. AirNZ also recently started its pilot cadetship programme that will train up to 30 pilots a year.

**For Engineers:** There are around 400 work-based learners per annum. Outside of workplaces, NMIT and AirNZ Engineering school are the two main VET training providers offering Aviation engineering with capacity of 100 students per annum.

**For Air Traffic Controllers:** Airways is the sole training and employer for air traffic controllers in NZ, training around 45 learners per annum.

**For Ground Crew:** This is mainly serviced by Yoobee Colleges and work based learning via ServiceIQ. Operators like JNP aviation also administer their own training targeting the Māori and Pacific workforce.

**For Cabin Crew:** Yoobee and AirNZ are the main providers for cabin crew.



Aviation Engineering

Aircraft maintenance and engineering are vital in all aspects of aviation. AirNZ, Airwork and NZDF are the main employers of aircraft maintenance engineers in NZ. Larger operators tend to have aircraft maintenance department as a part of their operation, while smaller entities typically outsource this service. Demand for engineering services continues to expand and highly skilled/qualified staff are in high demand both domestically and internationally. There are also some green shoot operators like NZAero that manufacture and export high value aircraft.

## What does this mean for the Aviation Workforce?

Modelling from the Aviation Workforce Insights Platform confirms that New Zealand's aviation industry faces persistent and growing shortages — particularly in pilots and engineers. These are not short-term mismatches, but symptoms of deeper structural issues in the way the workforce is trained, attracted, and retained. Without addressing these fundamentals, further investment in training alone will not resolve the shortages. The following themes summarise the key workforce challenges facing the industry.

### 1. An Increasing Workforce Gap

#### *Evidence and Description*

Forecasting work by AIANZ and Ringa Hora shows an estimated shortage of 100–150 pilots and 400–500 aircraft engineers each year<sup>3</sup>. Supply is not keeping pace with demand, and the gap is projected to widen as the global aviation industry continues to expand. Airlines and larger operators are generally able to attract sufficient level of staff directly, or from other parts of the industry, but smaller and regional operators struggle to attract and retain skilled staff. This in turn leads to vulnerabilities across the workforce.

Global competition compounds the problem, with experienced pilots and engineers heading offshore for higher wages and faster progression opportunities. The increasing global competition also meant that retaining specialist aviation talents – like air traffic controllers are becoming difficult.

The recently established Air New Zealand Pilot Cadetship Programme is helping to alleviate part of the anticipated pilot shortage by supporting up to 30 new pilots each year through an accelerated 14-month training pathway. While this initiative strengthens the domestic pipeline, cadets will form only a small portion of the airline's annual intake, with the majority of new pilots still expected to come through existing training routes and career pathways.

#### *Implications for the system*

Persistent shortages limit growth, reduce resilience, and undermine training capacity. When early-career pilots and engineers leave, the flow-on effects weaken the entire pipeline, restricting future training output and slowing recovery across the sector.

### 2. A Fragile and Fragmented Workforce Pipeline

#### *Evidence and Description*

New Zealand's aviation career pathways are lengthy and fragile. It typically takes several years and substantial financial commitment before a trainee pilot or engineer builds up the necessary credential/experience to obtain sustainable employment. Only around half of graduate pilots<sup>4</sup> remain working in New Zealand aviation eight years after training. The completion rate of flight training also varies significantly. AIANZ's upcoming report on tracking graduate pathways

Graduate pilots face a long “experience gap” between qualification and airline entry, often requiring 500–1,500 flying hours that are increasingly difficult to obtain domestically. Engineers face a five-to-seven-year journey to become a licensed aircraft maintenance engineer, with limited training capacity and costly equipment access further constraining throughput.

---

<sup>3</sup> [Aviation Workforce Insights: Evidence based advocacy - Aviation Industry Association](#) – estimated based on the project number of aircrafts, CPL holders and aviation engineers

<sup>4</sup> Estimate based on matching Student completions for 2011 to 2013 linked to Inland Revenue income records (Statistics NZ IDI).

Compounding student loan interest and overseas job opportunities mean many graduates choose to stay abroad — with roughly a quarter of New Zealand trained pilots<sup>5</sup> pursuing long-term careers offshore. Not being able to secure senior aviation roles in New Zealand may also lead to a relatively lower student loan repayment. The average borrowing is \$31,500 in 2023 per annum and the average debt in graduation is \$103,800. Just over 60% of graduates had fully repaid their student loan 20 years after graduation. Although this figure is relatively lower than those studying towards a medical or veterinary degrees (80 and 70% respectively)<sup>6</sup>, nevertheless, the time it takes for pilot trainees to build up the necessary credential meant that it is inherently challenging for them to payback the loans quickly.

#### *Implications for the system*

The hierarchical aviation workforce structure means that shortages are most acute at the bottom of the pipeline — in flight training schools and small operators. These organisations are critical for nurturing new talent but face a circular dependency: when instructors or licensed engineers advance to higher roles, training capacity falls. Without interventions that strengthen the link between training and long-term employment, the system risks collapsing under its own weight due to the lack of qualified instructors to help support the next generation of aviators.

### **3. Misalignment of Incentives**

#### *Evidence and Description*

The aviation industry's fragmented incentives between students, flight training schools, airlines, and general aviation organisations have distorted the workforce pipeline. Most student pilots see careers with airlines being the most ideal based on previous survey conducted<sup>7</sup>. For them, the goal is often to reach an airline position as quickly as possible, leading to rapid turnover among flight instructors and small-operator pilots. For training organisations, this creates a revolving-door dynamic that undermines stability and quality.

Without a stable supply and retention of high-quality instructors, it is difficult for the school to attract future students, especially international student pilots. This is critically important as international student pilots play a vital role in boosting the financial viability of the school. Pilot training has historically been a high-value export education industry, with each international student contributing over \$120,000 in fees alone. Their enrolments provide the financial base that keeps flight schools viable, enables investment in aircraft and simulators, and allows domestic students to train in well-resourced environments. Just as importantly, these international cohorts create the demand that allows newly qualified domestic pilots to work as instructors and accumulate the flying hours required to enter general aviation or airline roles. Since COVID-19, however, international pilot enrolments have declined drastically leading to further pressure on the financial viability of training providers and further strained the domestic instructor pipeline.

#### *Implications for the system*

Under the current settings, airlines and training schools compete for the same limited pool of qualified instructors (airlines wanting pilots with more flying hours and flight training schools needing these pilots to train for future pilots) rather than collaborating to grow the pipeline. This lack of coordination often discourages industry-wide investment in workforce and shared solutions.

---

<sup>5</sup> Estimated based on the border crossing dataset and absence of Inland Revenue income records (Statistics NZ IDI).

<sup>6</sup> Custom data request - Ministry of Education Student Loan repayment estimates

<sup>7</sup> [NZALPA - New Zealand Air Line Pilots' Association > Media Centre > Pilot Career Progression Report](#)



#### 4. **High Cost and Limited Accessibility of Training**

##### *Evidence and Description*

Pilot training can exceed \$120,000, with student loans covering only part of this amount, leaving aspiring pilots to self-fund substantial costs. In addition, the graduate pilots will likely require additional financial support while they build up the necessary flying hours to secure more senior roles.

Training pathways for engineers face similar constraints, with training duration, specialised training and equipment access adding to the burden. These costs limit accessibility, particularly for those without financial means, narrowing the pipeline of future talent.

##### *Implications for the system*

The high upfront cost deters capable people from pursuing aviation careers, restricts diversity, and perpetuates inequity. Without targeted financial mechanisms or employer-supported pathways, talent will continue to flow to countries offering better-funded options.

#### 5. **Attraction, Awareness and Diversity**

##### *Evidence and Description*

Public awareness of aviation careers remains low beyond high-profile pilot roles. Māori make up just 8% of the aviation workforce compared with 17% of the population, and Pacific representation is similarly limited and concentrated in entry-level positions. Female pilots makes up less than 7% of the pilot workforce and 2% of aviation engineers.

Engagements with these groups highlight a need to create visible, culturally grounded pathways and supportive environments. Stakeholders consistently emphasised the importance of whānau-centred support, visible role models, and training environments that reflect cultural values<sup>8</sup>.

##### *Implications for the system*

A narrow and homogenous workforce limits innovation, weakens social licence, and fails to reflect the diversity of Aotearoa. Expanding participation — particularly through Māori and Pacific leadership pathways, community engagement, and early exposure in schools — will be critical to ensuring a sustainable and inclusive future workforce. The issue is likely to be compounded with the changing demographics — given Māori, Pacific and Asian population will make up almost 50% of New Zealand population in the next 20 years.

---

<sup>8</sup> [Kaupapa-Maori-Aviation-hui-findings\\_final-Jul24.pdf](#), [Pacific-Aviation-Talanoa-findings\\_Sep24.pdf](#)

## Possible Workforce Response

In responding to the identified barriers, we propose taking a phased approach toward addressing the pilot and engineering workforce shortages.

### Phase 1 – Maximise existing pilot and engineering pipelines

The proposed phase 1 initiatives are designed to be implemented rapidly utilising the existing levers.

#### Proposed Initiatives

##### 1. Shorter and more intense pilot training programme that better reflects the needs of airlines while maintaining safety

**The Core Concept:** Already signalled in the Aviation Action Plan, the Ringa Hora team is currently working with NZQA and industry stakeholders to provide guidelines for a new pilot training programme to support the more intense delivery of pilot training and better align training with the needs of airlines.

This will add to the existing range of flight training programme offerings while avoiding possible adverse impacts on learner pilots wishing to pursue aviation roles outside commercial airlines or not wanting to be part of an intense programme.

Although the programme change process is well mapped out, the unresolved matter still lies with the inconsistent interpretation on how much student loan a pilot trainee could access in a single year. Subject to agreement, clarification will be issued to aviation training providers that the existing annual 2 EFTs (equivalent full-time student) borrowing limit will be applied for pilot trainees and trainees can still access up to \$70,000 in student loan if they opt to participate in the intense pilot training programme. This is of course noting that there is still a substantial gap in training costs relative to available student loan.

**Implementation Steps:** Engagement with the airline industry suggested that the changes airline operators are seeking would be that multi-engine instrument rating, multi-crew cooperation, and flight experience under multi-engine instrument rules be further integrated in the existing pilot training programme. Review by Ringa Hora suggests that these elements can be catered for under the existing pilot qualification framework, meaning that it could be quickly enabled. Providers who are interested in delivering such programmes, could submit either a new programme, or a programme change to an existing programme for NZQA approval. The Automotive, Transport and Logistics ISB should be able to support providers with their specific programme design if needed. It is important to note that no programme changes should dilute the focus on safety, competence, and regulatory compliance. See annex for more detail.

The proposed programme change will ideally be accompanied by direction from the Ministry of Education on the amount of loan that can be drawn when participating in an intense pilot training programme. Given the cost of training is likely to remain the same, if students are unable to draw down the same amount of loan there is likely to be limited interest in the intense programme given the widening gap on costs.

We would further recommend that providers work with airlines to develop a student intake assessment framework, as success of any training programme will depend not only on curriculum design, but also strengthening the quality and suitability of student intake.

**Resource Requirements:** A programme changes of this nature will typically take around 6 to 8 weeks to obtain ISB endorsement and NZQA approval. Nevertheless, considering the broad interests in this topic, we would further recommend the Automotive, Transport and Logistics ISB work with CAA to go through programme submissions to ensure they meet regulatory requirements.



## 2. Supported placements for domestic graduate pilots

**The Core Concept:** The need to build up sufficient flying hours before a graduate pilot can move into an airline role continues to be one of the biggest challenges in addressing pilot supply. We propose that rather than asking the graduate pilots to arrange their own “hours building” journey, an industry body takes on the coordinator role to help map out how each graduate pilot can build up their hours towards meeting the entry requirements for their chosen aviation destinations. This will also include working with aviation employers to identify possible vacancies and facilitate the matching process. It is envisaged that each graduate pilot will be supported to develop a transition plan with support to execute.

This is an adoption of the clinical placement model for medical students where each medical school manages placement coordination for their enrolled students. The schools have formal arrangements with Te Whatu Ora hospital districts and affiliated GP practices to host clinical rotations.

Although with the different commercial entities involved, formal arranged placements for all graduate pilots may be challenging in the short-term. We also note there may be a need to develop criteria around financial viability to determine suitable host organisations. However, we do consider a much more proactive and structured approach will help lift the conversion rate of graduate pilots securing a long-term foothold in the aviation industry.

**Implementation Steps:** There is a potential role for the Aviation Council with sufficient resourcing support from agencies to take on this coordinator function. It will work with the EFTs funded flight training schools and aviation employers to prepare a transition plan for each of the CPL qualified pilot graduate (around 100 per annum). This will also include partnering with aviation employers to identify possible opportunities and support the matching process.

Cadetship schemes of a similar nature are well adopted internationally. It is envisaged that much of the detail can be transferable in the New Zealand context. Nevertheless, the success behind the proposed placement initiative will depend on a high degree of collaboration across flight training schools, general aviation operators as well as reach into the graduate pilot pool.

**Resource Requirements:** The proposed pilot placement support scheme will require resource around engagement and administration support. Nevertheless, with the relatively small number of graduate CPL pilots per annum and employers across the NZ aviation industry we do consider the required investment would be modest compared to the benefit of a strengthened pilot workforce pipeline. Further guidance is required from the Aviation Council on specific resourcing requirements.

## 3. Lifting Supply of Licensed Aircraft Engineers

**The core concept:** Addressing the growing shortage of aircraft maintenance engineers requires both expanding the number of students entering the training pipeline and exploring ways to have more fit for purpose training options—without compromising safety or quality. An immediate step is to ensure that aviation engineering training is recognised as a strategic priority within the Tertiary Education Commission’s (TEC) annual vocational education investment decisions, so that all qualified and motivated learners can access training opportunities – as currently providers have to place potential students on wait list due to funding constraints.

In parallel, targeted investment should be made to develop modular block courses—short, intensive learning formats that enable learners to complete specific components one at a time. This model is particularly beneficial for work-based learners who may not be able to access all the credentials required for LAME (Licensed Aircraft Maintenance Engineers) licensing through their current employment alone – resulting in a delay in getting their qualification. Expanding such offerings will help accelerate learner progression and qualification rates.

Lastly, to further strengthen the training pipeline, consideration should also be given to incentives that encourage additional providers to enter the aviation engineering training market, broadening access and capacity across regions.

**Implementation Steps:** Recommend that TEC designate aviation engineering as a priority area in future investment rounds. Including support for the delivery of modular block programmes to ensure relevance, quality, and scalability. Further it is worth considering including aviation engineering programmes delivered by NMIT as eligible for the recently established fund for strategically important vocational education provision, available to institutes of technology and polytechnics during the transition from Te Pūkenga to the new vocational education system.

**Resource Requirements:** The proposed initiative will require addition/reprioritised investment in the vocational education portfolio – administered by TEC.

#### 4. Support Conversion from Allied Trades for Aviation Engineering

**The core concept:** There is ongoing need to further invest in training provision for aviation engineers both in terms of classroom-based learning as well as apprenticeships. Nevertheless, considering that the training duration for aircraft maintenance engineers is significantly lengthy, a more immediate option is through channelling New Zealand’s wider engineering talent pool into aviation. By mapping the skills overlap between allied trades and aviation engineering, and creating accessible pathways with targeted training support, we can accelerate workforce conversion while maintaining quality and safety standards.

**Implementation Steps:** We consider there is scope for the Industry Skills Board to work with industry stakeholders and map out the alignment between allied trades and aviation engineering. There are also some immediate steps needed to enable people to convert from a related engineering trade to aviation. The Industry Skills Board can then support providers such as NMIT to introduce modular, stand-alone training blocks that enable people from other trades to complete only the additional components needed to achieve aviation-specific licensing.

**Resource Requirements:** Funding would be needed to scope the skills overlap between related roles as well as the necessary investment into relevant training packages.

#### 5. Boosting International Student Pilot Numbers

**The Core Concept:** Despite rising global demand for pilots, international student pilot numbers in New Zealand have dropped sharply since Covid — from over 600 in 2019 to under 200 in 2023. This presents a critical matter for the long term sustainability of the Aviation industry. This is because international student pilots not only contribute significantly to the regional economies, but also provide financial stability to flight training schools, especially considering the cap in place for domestic students and fees. In the workforce context, having a strong cohort of international student pilots is essential to sustaining the overall training ecosystem. Their presence helps ensure there are enough opportunities for domestic learners to build the required flying hours through flight instruction, while also supporting the retention of instructors within flight training schools.

**Implementation Steps:** A key lever is adjusting post-study work visa settings to allow international student graduates of pilot training or aircraft maintenance engineering programmes to work in New Zealand after training. Since these are sub-degree qualifications, it will require adjustments in Immigration New Zealand's approved list of qualifications eligible for a Post Study Work Visa<sup>9</sup>.

The revised Accredited Employer Work Visa (AEWV) also provides a pathway for international student to stay in New Zealand aviation post-graduation. The Going for Growth International Education Plan has further introduced a six-month Short-Term Graduate Work Visa to help NZQCF Level 4–7 graduates transition to the AEWV.

Nevertheless, changes in migration settings will need to be considered alongside the concept of supported placements for domestic graduate pilots as we do need to ensure these domestic graduates have sufficient opportunities to gain the required flying hours to help secure permanent roles in the industry. Further, the opening up of international student pathways will need to be accompanied by a high level of assurance framework to ensure the quality of training is not diluted in anyway.

**Resource Requirements:** There are no planned reviews of post Study work visa at present, further work will need to be carried out with MBIE's immigration policy area to determine the appropriate review process, while ensuring domestic pilots have enough opportunities for domestic learners to build the required flying hours through flight instruction.

## 6. Establish a Series of Baseline Performance Targets

**The Core Concept:** To ensure progress is transparent and accountable, it is proposed that the Aviation Council be supported to develop a series of measures around workforce shortages – in line with the indicator framework the Ministry of Transport is developing. These could include insights around conversion rates from training to long term employment, trainee pilots' perspective on training and career pathways, employers' perspective on how well training is meeting workforce needs. It is envisaged these baseline measures will help ensure continuous progress and inform future review of aviation system.

**Implementation Steps:** The Aviation Council work with officials to agree on a set of baseline metrics – Drawing from the Aviation Workforce Insights Platform, industry surveys and vocational education data. It is envisaged that these baseline metrics will be reported annually through the Aviation Council to assess progress against these metrics and identify emerging issues. This should also incorporate trainee and employer feedback mechanisms to ensure performance measures remain relevant and responsive to changing aviation workforce dynamics.

**Resource Requirements:** It is envisaged the proposed initiative will require dedicated analytics support. This can be provided either via the agencies or be issued as a grant to the Aviation Council to support the development of this initiative.

---

<sup>9</sup>The list already includes a number of vocational occupations that are facing severe workforce shortages [Qualifications needed for a Post Study Work Visa :: Immigration New Zealand](#)

## Possible Future Considerations

Building on the initiatives listed in Phase 1. It is proposed that we consider an additional suite to further strengthen the aviation workforce pipeline in the medium term. These ideas will need to be developed further by the Aviation Council and relevant agencies, as they are likely to require significant changes in settings or funding commitments. The range of possible initiatives include:

**Systematic review of investment decisions:** Consideration of a systematic review of aviation investment – especially around pilot training caps and funding rates – subject to meeting agreed threshold on training to employment conversion and student loan repayments.

**Potential partnership with New Zealand Defence Force:** A promising opportunity lies in forming a structured partnership with the New Zealand Defence Force (NZDF) to expand aviation training pathways that benefit both defence and the wider civil industry. NZDF already provides high-quality, values-driven training across piloting, engineering, air crew, and aviation support roles, there may be further opportunities to explore how defence capability can strengthen national aviation pipelines. Feedback from NZDF suggests that subject to resourcing, there are opportunities for NZDF to take on larger cohorts of trainees while expedite training duration.

**Aviation engineering:** Boosting the supply of aviation engineers will require encouraging more students studying towards science, mathematics and technology areas, including as the demographics change that more Female, Māori and Pacific learners.

**Further bridging the gap between training and long term employment:** Reconsider pilot training programme in New Zealand and specifically include additional flying hours requirements into the qualification. This could help ensure graduate pilots obtain the flying time needed upon graduation to secure long term roles within aviation. Similar sentiments apply to other parts of the aviation industry as there needs to be further incentives for aviation talents to remain in New Zealand.

**Investigation of Multi-Crew Pilot License:** The International Civil Aviation Organization has established a competency-based Multi-Crew Pilot License (MPL) which shifts the focus from accumulating flight hours to demonstrating defined operational competencies in a multi-crew airline environment. The aim is to enhance aviation safety while increasing throughput of pilot trainees. It is proposed that CAA works with the wider aviation industry to investigate the adoption of MPL in New Zealand.

## Next Steps

Subject to Ministerial directions on the proposed initiatives, we recommend that officials in consultation with the Aviation Council commit to a detailed implementation programme – factoring in the required resourcing considerations.

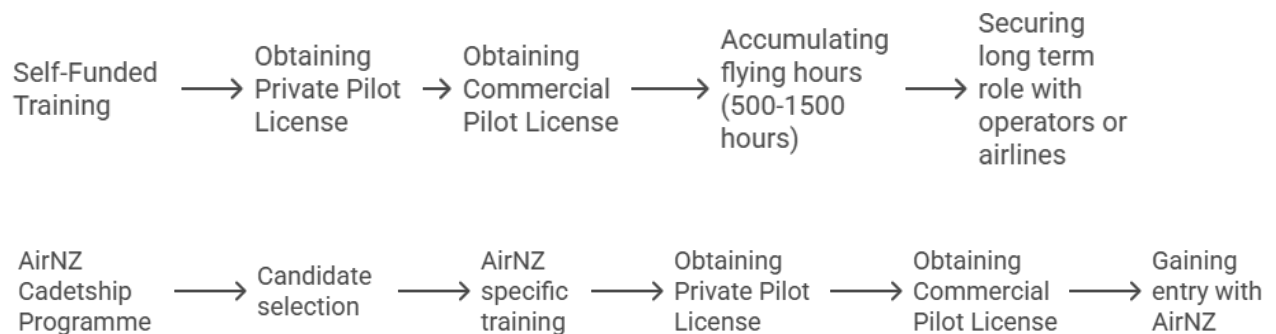


## Annex – Pilot training programmes in New Zealand

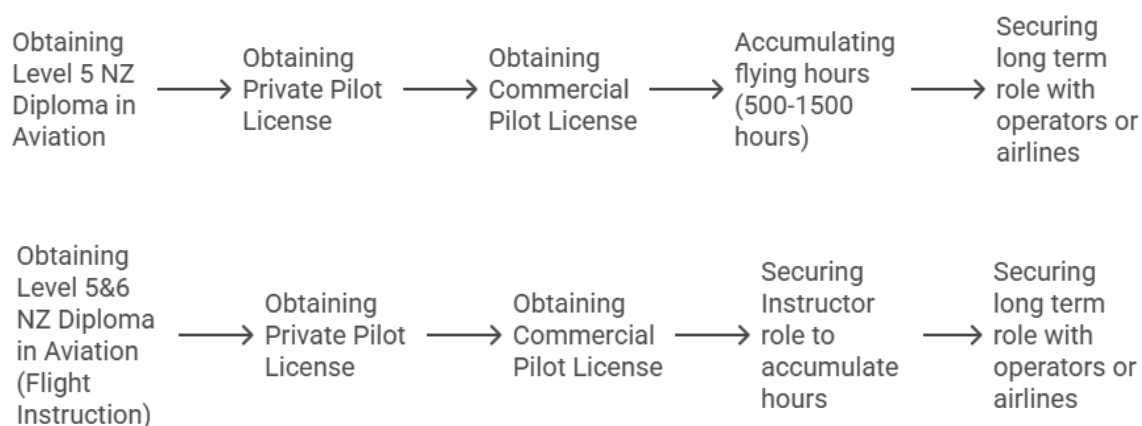
The annex provides a high-level summary of pilot training in New Zealand and how qualifications interact with pilot licencing, as well as pathways to secure a long term pilot career in aviation.

### Pilot Pathways In New Zealand

#### Private & Industry Funded Pathway



#### Govt supported Pathway



### Pilot Pathways and Aviation Qualification

There is a deliberate separation between qualification and licensing in the New Zealand education system. Pilot licensing requirements are set by CAA and focus on competency-based outcomes. As such, student pilots need to meet the prescribed training and pass the relevant theory and flight examinations to obtain their licence.

Holding a diploma in aviation does not automatically lead to a private or commercial pilot licence, nor is a New Zealand Diploma in Aviation a prerequisite for gaining one. The qualification pathway can certainly complement training, offer structured learning, and support broader education goals, but it sits alongside, not in place of the licensing standards overseen by CAA.

Aviation qualifications are important in the context of funding (student loan, student allowance and provider funding). It is also a requirement for student visa application for international student pilots.

There are currently two qualifications available for domestic pilot training in New Zealand.

- **Level 5 New Zealand Diploma in Aviation (General Aviation) with strands in Aeroplane & Helicopter**

Graduates of this programme will be qualified commercial pilots, able to exercise the privileges under the appropriate CAA rules for General Aviation. The aim of this course is to provide the skills and knowledge necessary to achieve a Commercial Pilots Licence with Type and Instrument Ratings, entitling the holder to legally operate an aircraft in New Zealand and beyond for commercial purposes.

- **Level 6 New Zealand Diploma in Aviation with strands in Aeroplane Flight Instruction, Aeroplane Airline Preparation, and Helicopter Flight Instruction**

Building on the Level 5 General Aviation Diploma qualification, graduates of this programme will gain a C-Cat Flight Instructor Rating or Operate as the pilot-in-command on a single pilot aircraft or as the co-pilot of a multi-engine multi-crew aircraft.

These two qualifications overlap, and students may cross credit for a proportion towards the flight instructor strand – so if they already obtain a level 5 aviation diploma, they just need to carry out training for the flight instructor component rather than starting from scratch.

These qualifications are delivered through programmes by 15 flight training operators across the country under a cap determined by the Ministry of Education. Each of these training operators run their own version of the pilot training programme to deliver against the qualifications. These programmes are endorsed by the Workforce Development Council/ISB and need to be approved by NZQA. There are degrees of flexibility for each provider to vary some programme components and training duration to allow for specific industry needs.

On average a student pilot could take between 1-3 years to complete their level 5 training and a further 12 months to complete their level 6 training. This can vary significantly depending on the training programmes prescribed by the various providers and student circumstances.

### **Proposed Refinement in Training Programme**

Feedback from airlines suggest there is potential for a more airline-oriented pilot training. The aim is to ensure trainee pilots acquire more airline relevant skills in their pilot training which will hopefully make for a smoother transition to a role in a commercial airline. Particularly, operators are seeking elements around multi-engine instrument rating, multi-crew cooperation, and flight experience under multi-engine instrument rules to be further integrated in the existing pilot training programme.

After going through their feedback, we consider that changes can be made at a programme level without altering the overall qualification. This enables the change to be made quickly without causing major disruptions to providers. Programme changes of this nature will typically take around 6 to 8 weeks to obtain NZQA approval.

Table below illustrates the proposed structure, impact on duration, changes to components relative to the current training programme.

Core Segments of Pilot Training	Hours of training/credits	Key programme components	Proposed additions
Pilot license - theory	750 hours /75 Credits	<ul style="list-style-type: none"> <li>- CPL Air Law (Aeroplane and Helicopter) (Subject 16)</li> <li>- CPL Meteorology (Subject 20)</li> <li>- Flight Navigation General (Subject 18)</li> <li>- Human Factors (Subject 34)</li> <li>- Principles of Flight and Aircraft Performance (A) (Subject 22), or Principles of Flight and Aircraft Performance (H) (Subject 24), as appropriate</li> <li>- General Aircraft Technical Knowledge (Aeroplane) (Subject 26), or General Aircraft Technical Knowledge (Helicopter) (Subject 28), as appropriate</li> </ul>	Integrate PPL and theory subjects, although PPL exams must be passed prior to sitting CPL exams. (This is implied in the current training, but not specified)
Pilot license - flying	1650 hours / 165 Credits	<p>Basic Turbine Knowledge (Subject 64).</p> <p>Have successfully demonstrated the following through flight testing:</p> <ul style="list-style-type: none"> <li>- Knowledge in the ground examination subjects specified above, including those detailed in any examination knowledge deficiency reports</li> <li>- Knowledge of the privileges and limitations of a commercial pilot licence</li> <li>- Technical and operational knowledge relevant to the aircraft type to be used in the flight test</li> <li>- Competence to operate the aircraft within its performance capabilities and limitations in accordance with the aircraft flight manual in all normal, abnormal and emergency conditions and procedures while exercising appropriate levels of judgement and command</li> <li>- Competence in radiotelephony (RTF) and phraseology</li> <li>- Control of the aircraft at all times in a manner that ensures the successful outcome of a procedure or manoeuvre is never in doubt.</li> </ul>	<p>Multi-engine Instrument Rating (IR). Most providers already offer single-engine IR as it is less expensive.</p> <p>Multi-crew cooperation at Level 5, learning to operate as a two-person crew, with pilot flying and pilot monitoring duties, but not specifically in an airline environment.</p>

### Proposed Refinement in Training Duration

We would further encourage providers to increase the weekly instruction time as a part of the programme change. Currently the average weekly instruction time is around 20 hours with an additional 10 hours of student led learning. We would encourage the provider to lift the weekly instruction time to be around 40 hours, noting similar arrangements are already in place for some providers.

We envisage that these changes will speed up the pilot training process from 2+ years to be around 14-16 months. The exact duration will depend on the specific programmes offered by the various providers. The Automotive, Transport and Logistics ISB will be able to work with providers with their specific programme design if needed. Further, considering the broad interests in this topic, we would further recommend that ISB works with CAA as a part of the programme endorsement process to ensure they meet regulatory requirements.