



Industry Skills
Australia

Jobs and
Skills
Councils

An Australian Government Initiative

Aviation Industry



2025
Draft
Workforce
Plan



About ISA

Industry Skills Australia (ISA) has been established as the Jobs and Skills Council (JSC) for the Transport and Logistics industry sectors, which includes Aviation, Maritime, Rail, Transport and Logistics, and the emerging sectors of Omnichannel Logistics and Distribution, and Air and Space Transport and Logistics.

Owned and led by industry, our JSC is committed to building a world-class supply chain workforce to increase productivity, create better jobs and build opportunities for individuals.

We will do this through:

- leveraging our more than 30-year history with the transport and logistics industry,
- undertaking research and data analysis to inform workforce planning,
- advocating for a workforce development approach in tackling industry skills issues, and
- developing priority training package products.

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Acknowledgements

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About the Workforce Plan

Purpose

Workforce Planning is the strategic centrepiece for Jobs and Skills Councils to inform and establish each of their other functions. The Workforce Plan serves as a guide to identifying the contemporary drivers and challenges within Australia's Transport and Logistics industry and developing forward-thinking actions to address those challenges. Drawing upon a rich blend of data sources, including industry reports, stakeholder consultation and the direction from our Strategic Workforce Planning Committee, it outlines the current obstacles impeding the industry's progress and proposes practical actions to overcome these hurdles.

The Workforce Plan begins the groundwork for ongoing evaluation and strategy refinement. It aims not only to diagnose current challenges but also to anticipate future trends and opportunities. This proactive approach ensures that the Australian Transport and Logistics industry remains agile and responsive to changing conditions.

A crucial aspect of this document is its collaborative nature, emphasising the value of stakeholder input. By incorporating diverse perspectives from industry experts, policy makers, and practitioners, the strategies presented are both robust and attuned to the real-world dynamics of the Transport and Logistics industry.

The Workforce Plan will be used to further engage with stakeholders, with the feedback received incorporated into future iterations of the Plan. As the Workforce Plan is updated each year, it will seek to better understand current, emerging and future workforce challenges and opportunities, including skills gaps and shortages for all industries within Industry Skills Australia's remit, including small, niche and regional sectors and to develop appropriate strategies and advice for addressing diagnosed challenges. This also includes working with Jobs and Skills Australia to better understand the outlook for employment for each industry sector

The Draft 2025 Workforce Plan is not just a snapshot of the present, but a roadmap for the future, guiding stakeholders in collectively navigating and shaping the evolving landscape of Australia's Transport and Logistics industry.



JSC Obligations

In 2023, the Australian Government established ten (10) Jobs and Skills Councils to address the many workforce planning and skills development challenges facing Australia, and to ensure that our national skills system meets the rapidly evolving needs of industry, individual employers, and the workforce.

Jobs and Skills Councils have four formal roles:

1

Industry Stewardship which involves gathering industry intelligence to reliably represent the views and needs of industry back to the Vocational Education and Training system and its decision-makers

2

Workforce Planning which enables industry to identify its workforce development issues and design high-impact solutions, which are then captured in the national Workforce Plan for the industry

3

Training Product Development which focusses on improving the quality, speed to market and responsiveness of training products to employer and workforce needs

4

Implementation, promotion and monitoring which is a broad role that involves supporting training providers, promoting careers, and monitoring how well the system is meeting the needs of industry and learners

Jobs and Skills Councils are funded by the Australian Government (Department of Employment and Workplace Relations) but work collaboratively with a wide range of bodies.

Approach to Consultation

The Transport and Logistics industry is extremely diverse, comprising businesses ranging from complex national and global companies through to a wealth of small one and two person businesses. Over 99% of enterprises within our coverage are small business.

ISA recognises the difficulties in reaching such a diverse stakeholder base and continues to expand its sectoral and regional engagement footprint each year.

Not all stakeholder groups engage in the workforce planning process. As part of our user-centred approach, we will continue to evolve our approach to stakeholder groups determining the level and method of involvement that best suits their respective needs. If and when a stakeholder's focus shifts, we will adjust our engagement with them accordingly.

Consultation and engagement with different groups of stakeholders inform ongoing development of our Workforce Plans. This includes deepening our understanding of key workforce drivers and challenges, expanding our breadth and depth of data sources, filling evidence gaps, validating and providing context to workforce data, and developing effective actions/strategies to address workforce drivers and challenges.

The following key elements will form part of our consultation and engagement approach.

Industry Skills Australia Committees

ISA uses a range of mechanisms and specialised committees and taskforces to provide input and advice into the Workforce Plans.

Strategic Workforce Planning Committees

The Strategic Workforce Planning Committees (SWPCs) are responsible for setting the strategic development of the Workforce Plans, with a focus on identifying, forecasting and responding to workforce challenges, opportunities and emerging skills needs. They shape and prioritise actions through their advice. The SWPCs comprise of industry champions from each major industry to ensure coverage and leadership, and includes geographic, sub-sector and business scale.

Our Strategic Workforce Planning Committee, comprising representatives of industry and employee associations form a key structure for the collection and validation of industry intelligence and strategic guidance.

Industry Advisory Council

ISA's Industry Advisory Council (IAC) provides advice on leading trends from adjacent industries/client industries

(for example, online retail and its transformation of logistics). The IAC is comprised of senior supply chain executives and industry leaders from a range of related sectors and organisations where supply chain effectiveness is core business or a key contributor to productivity.

It operates as a dynamic advisory mechanism to the Board and SWPCs by providing world-class business intelligence and strategic insights from across the economy.

Technology Futures Taskforce

ISA's Technology Futures Taskforce (TFT) provides advice from experts in the innovation and technology sector specialising in supply chain technologies, with activities focusing on identification of technologies likely to automate skills and job roles and trigger structural change in the workforce.

The TFT is an advisory mechanism to the Board and SWPCs by providing intelligence and insights on technology impacts for our sectors.

JSC Engagement

ISA continues to proactively engage and collaborate with the other Jobs and Skills Councils on shared workforce planning and skills development priorities. We also consult and advise when ISA-led workforce planning strategies will impact on another JSC's scope of work and stakeholders.

Industry Engagement

ISA has broadened its stakeholder engagement activities significantly in the last 12 months to include specific focus on regional, sub-sector and executive leadership.

Our activities include regional, and metro engagement held right around Australia and engage with employers, key supply chain stakeholders, local chambers of commerce, Regional Development Australia and Local Jobs and Skills organisations.

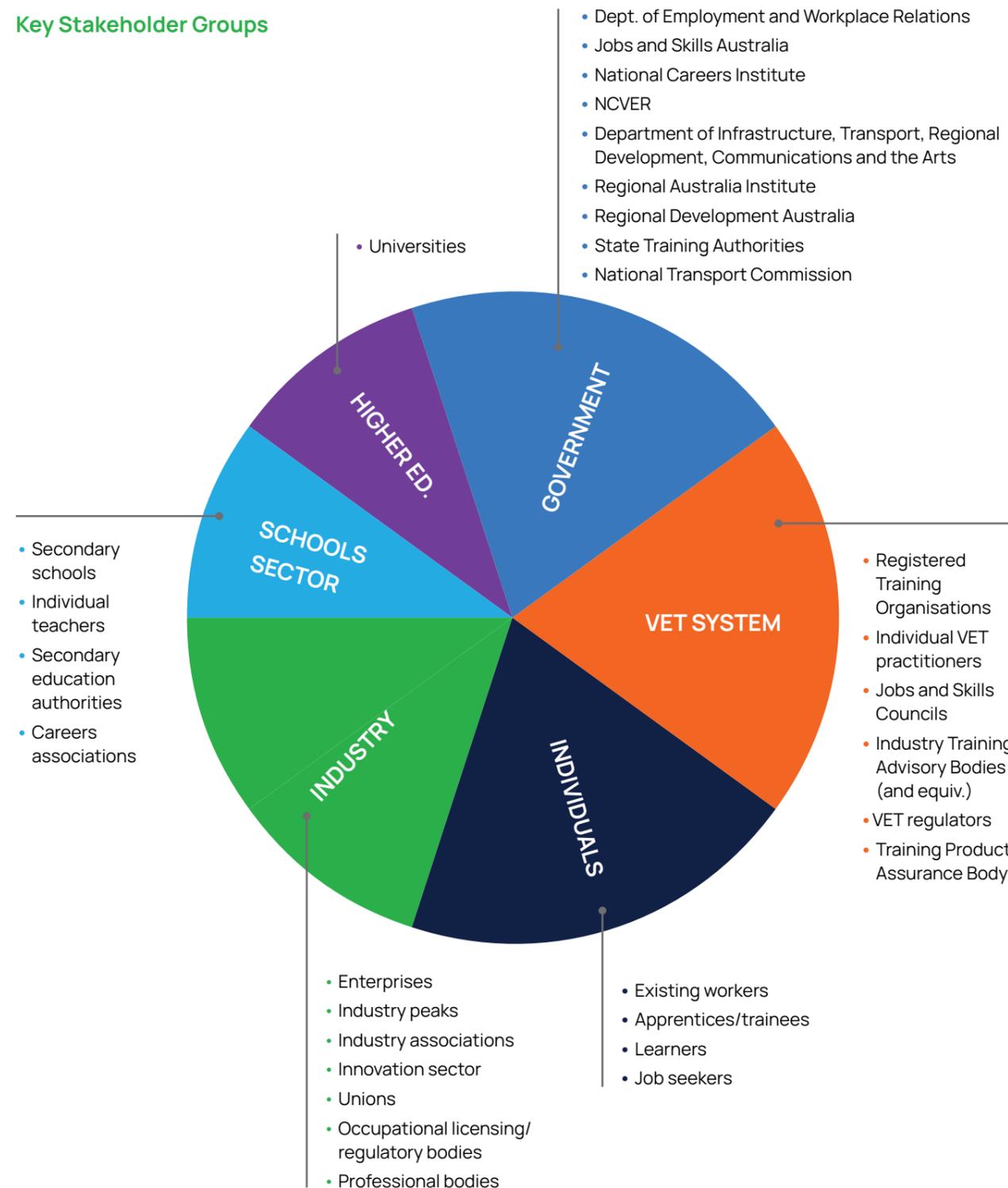
Supply Chain Leader Summit

Our 2024 Supply Chain Leaders' Summit brought over 150 participants to Parliament House, including industry leaders, union representatives, parliamentarians and government officials, to explore the current and future workforce planning and development challenges facing Australia's supply chain sectors.

With many critical issues common across aviation, maritime, rail, transport and logistics, this event provides valuable input into our activities and workforce plans.



Key Stakeholder Groups



DRAFT FOR CONSULTATION

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WORKFORCE PLAN CYCLE (2025)

PROCESS & INDICATIVE TIMING	Intelligence Curation & Drafting October - December 2024	INITIAL CONSULTATION February 2025	DRAFTING & CONSULTATION Feb 2025 - April 2025	SIGN OFF, SUBMISSION & PUBLICATION April - August 2025	IMPLEMENTATION & MONITORING April 2025 onwards
KEY STEPS	<ul style="list-style-type: none"> Thematic analysis of industry engagement activity Undertake further research and targeted consultation where required Refresh & review baseline data, previous year's trends, and new qualitative reports Consolidate input from SWPC, other ISA committees and key stakeholders 	<ul style="list-style-type: none"> Prepare Summary Papers on Key Challenges and Drivers for initial stakeholder input Confirm Key Challenges and Drivers with key stakeholders Analyse and respond to survey feedback and industry representations Undertake further research/ consultation as required 	<ul style="list-style-type: none"> Prepare first draft of the Workforce Plan, including proposed actions Release draft Workforce Plan on ISA website for public consultation SWPC provides input and advice on proposed actions and priorities Moderate, consolidate and analyse feedback with guidance from SWPC Update Workforce Plan based on feedback 	<ul style="list-style-type: none"> SWPC recommends final Workforce Plan Submit Workforce Plan to DEWR Prepare and submit proposed actions Publish and promote Workforce Plan and activities/projects on ISA website Initiate comprehensive Communications Strategy 	<ul style="list-style-type: none"> Undertake promotion, build collaboration across stakeholders to deliver Workforce Plan priorities Implement approved actions Monitor and evaluate activity/ project progress/outcomes Engage stakeholders to monitor the responsiveness of the national skills system
WHO WE CONSULT	<ul style="list-style-type: none"> Strategic Workforce Planning Committee Industry VET System Schools Sector Higher Education Individuals 	<ul style="list-style-type: none"> Strategic Workforce Planning Committee Governments Industry 	<ul style="list-style-type: none"> Strategic Workforce Planning Committee Governments Industry VET System Schools Sector Higher Education Individuals 	<ul style="list-style-type: none"> Strategic Workforce Planning Committee Governments 	<ul style="list-style-type: none"> Industry VET System Schools Sector Higher Education Governments
HOW WE CONSULT	<ul style="list-style-type: none"> Meetings Webinars Emails Metro Roundtables Supply Chain Leader's Summit 	<ul style="list-style-type: none"> Internal meetings and input from SWPC Internal meetings Surveys 	<ul style="list-style-type: none"> ISA website Webinar Email and social media Regional Roundtable 	<ul style="list-style-type: none"> ISA website Webinar Email and social media Meetings Conference presentations 	<ul style="list-style-type: none"> ISA website Webinar Surveys Conference presentations Meetings

Industry Overview

The Aviation industry plays a critical role in connecting people and businesses throughout Australia and around the globe. It underpins Australia's domestic and international supply chains, creating jobs and facilitating international trade and tourism. The Aviation industry is also a significant contributor to the national economy, generating \$63.2 billion in revenue in 2025¹ and employing near 71,000.² The Aviation workforce is projected to grow by 10.4% and 17.7% in the coming five and ten years respectively (Figure 1).³

In the 30 years from 1995 to 2025, the number of Australian domestic passengers nearly tripled (180%) while international passengers nearly quadrupled (278%) (Figure 2). Forecasts from 2025 onward show strong growth in both segments, with domestic passengers projected to nearly double again from 2025 to 2050 and international passengers forecast to more than double over the same period. By 2050, domestic travel is expected to reach around 237 million passengers, while international travel could near 95 million.⁴

The Aviation industry comprises the operation and coordination of aircraft for the transportation of freight and passengers by air, fire mapping, aerial spraying and drone operations. General Aviation (GA) activities support a wide range of other industries and create varied opportunities for employment in the Aviation industry. Examples of the diverse services provided through GA include air ambulance, delivery of medical supplies, inspection and protection of powerlines and phone towers in bushfires, support for law enforcement operations, monitoring of endangered species and habitats, safe movement of ships with marine pilot transfers, border security and surveillance, mail, freight and passenger services to remote communities and stations, scientific research and flights, scenic tourism, and sport and recreational aviation.

WE WILL SEE
continued growth in passenger numbers

¹ IBISWorld Industry Wizard 2024.

² Australian Bureau of Statistics, Labour force survey: Detailed, November 2024, Jobs and Skills Australia (JSA) trend data

³ Jobs and Skills Australia, [Employment projections produced May 2024 to May 2034](#)

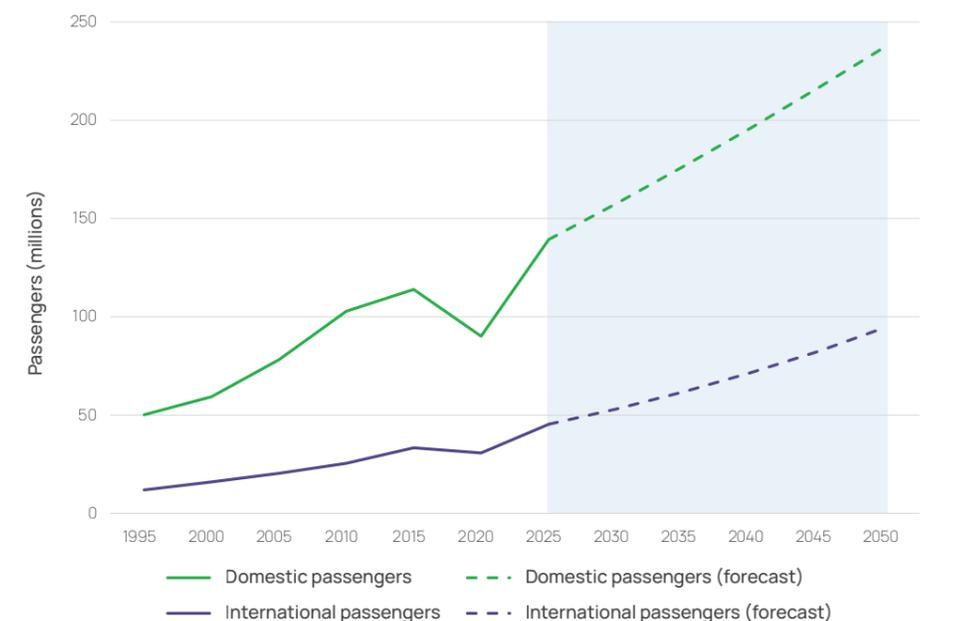
⁴ Bureau of Infrastructure and Transport Research Economics. (2024). Australian aviation forecasts: 2024 to 2050

Figure 1: Aviation Industry Workforce, 2002 - 2034



we will see continued
employment growth

Figure 2: Domestic and international passengers, 1995 - 2050



Source: BITRE 2024, Australian aviation forecasts - 2024 to 2050, Tables 6.1 and 6.3



AVIATION BUSINESS NO.

2483

26 with 200+ employees
104 with 20-199 employees
2,353 with 0-19 employees



28,545

REGISTERED DRONES IN AUSTRALIA

AIRPORTS IN AUSTRALIA

160



GDP CONTRIBUTION \$B 2024

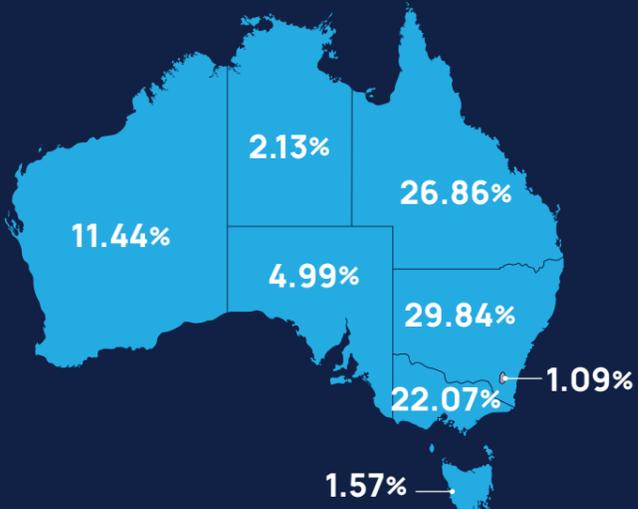
23.5

AVIATION INDUSTRY ESTIMATED ANNUAL REVENUE \$B 2025

63.2



BUSINESS DISTRIBUTION BY STATE %



AVERAGE AGE

42.7



WORKFORCE†

70,944



27% Female



1.2% Aboriginal & Torres Strait Islander



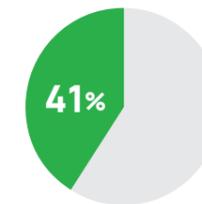
0.5% With a disability



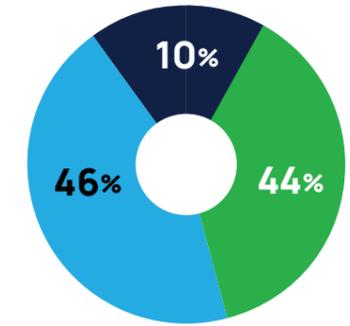
REGISTERED TRAINING ORGANISATIONS (RTO)

111

WORKERS WITH VOCATIONAL EDUCATION



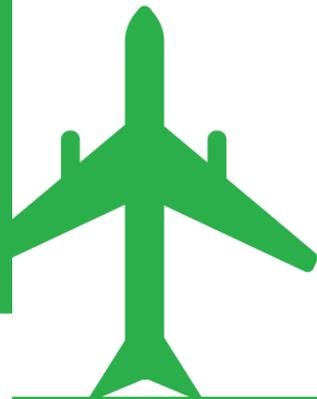
RESIDENTIAL DISTRIBUTION OF WORKERS



Major cities Regional Remote

TOP 5 OCCUPATIONS

1	Aeroplane Pilot		8136
2	Flight Attendant		6092
3	Aircraft Baggage Handler and Airline Ground Crew		4008
4	Air Traffic Controller		1589
5	Helicopter Pilot		1106



PASSENGERS ON DOMESTIC COMMERCIAL FLIGHTS

59.11 MILLION

REGIONAL AIRPORTS CARRY **40%** OF ALL DOMESTIC PASSENGERS

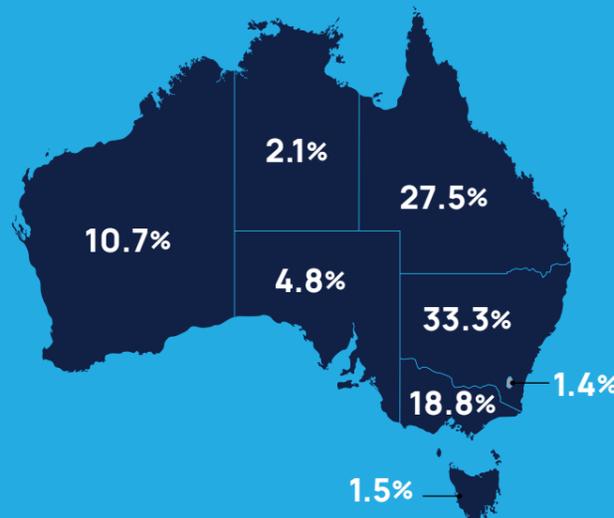


DOMESTIC FREIGHT TASK GROWTH (PROJECTED TO 2025-2030)

10.30%



WORKFORCE DISTRIBUTION



WORKFORCE NEARING RETIREMENT (AGED 56-66)

15.7%

QUALIFICATION ENROLMENT 2023

7,427



Key Challenges and Drivers

A. Key Aviation roles face ongoing shortages

The Aviation sector is continuing to experience significant workforce shortages in critical roles.⁵ These shortages challenge industry growth and have potential to impact safety standards. Current shortages are compounded by difficulty in attracting and retaining a qualified workforce, particularly in regional and remote areas of Australia.

In addition to impacting General Aviation, this issue is also affecting rotary-wing aircraft operations, including specialised helicopter services such as search and rescue, medical evacuation and offshore transportation, where pilots and maintenance engineers require specialised skills.⁶

Occupational shortages are most acute for pilots, flight instructors, flight attendants, LAMEs and ground crew

Table 1: Aviation occupations in shortage by state/territory

Occupation title	2021	2022	2023	2024
Aeroplane Pilot	NT	NT, WA	AUST	AUST
Air Traffic Controller			VIC	ACT
Air Transport Professionals nec		NT	AUST	AUST
Aircraft Baggage Handler and Airline Ground Crew		AUST	AUST	AUST
Aircraft Refueller			VIC	
Flight Attendant			AUST	AUST
Flying Instructor		WA	AUST	AUST
Helicopter Pilot			NT	NT

Source: Occupational Shortage List (14 February 2025)
AUST: All States and Territories

⁵ ABC News. (2024). [Experts warn Australia is facing an aviation skills shortage after COVID-19 pandemic](#)

⁶ Jobs and Skills Australia. (2025). [Occupation shortage list](#)



Current demand for **pilots** exceeds the available supply. The shortage has been driven by a rapid expansion of the global Aviation industry that has seen a significant increase in passenger numbers and airline fleet. Compounding the challenge is the looming retirement of many experienced pilots and the difficulty of replacing them. Time-consuming and costly training and certification processes deter potential candidates from pursuing a career as a pilot or even completing their pilot training, an issue that is even more pronounced in regional areas where financial support for training and employment opportunities is more limited.

Pilot scarcity is exacerbated by a shortage of **flight instructors**. General Aviation flight training has been declining in Australia for several years and was experiencing a shortage of instructors and trainers even prior to the COVID pandemic.⁷ Shortages are driven by the time and cost involved in achieving the required qualification to become a certified flight instructor. The training pipeline for instructors is also impacted by qualified instructors being drawn into more highly paid commercial pilot roles. The shortage is especially pronounced for senior instructors, flight examiners, and airline check and training captains.⁸

Industry stakeholders report a high turnover of **flight attendants** due to low wages, working conditions and limited career pathways. In 2024, flight attendants were added to the Australian Apprenticeship Priority List as a priority occupation.⁹ Intense media attention on aviation incidents and accidents highlights the critical role that cabin crew play in an emergency as first responders. The occupation requires a broad range of skills including safety, first aid, conflict management, teamwork and cultural awareness, which are all critical aspects of the job. It needs to be more emphasised that the job is more than a mere service role. The shortage of cabin crew can also cause operational challenges such as cancellations, delays, and disruptions which impact roster availability and stability. The Flight Attendants' Association of Australia and other stakeholders have requested a review of the Certificate III in Aviation (Cabin Crew) and further industry consultation to investigate the barriers to the industry utilising this qualification and amending it accordingly.¹⁰ Improving the public perception of the role as being a professional career with potentials for career progress can help attract more people to the role, especially more men. ISA is currently conducting a Cabin Crew Skills Gap Analysis project to identify and propose potential solutions.

⁷ Regional Affairs and Transport Legislation Committee. (2022). [Australia's general aviation industry](#)

⁸ Rural and Regional Affairs and Transport Legislation Committee. (2022). [Australia's general aviation industry](#)

⁹ 2024 Australian Apprenticeship Priority List. (2024). [Minister of Employment and Workplace Relations Portfolio. Media Release. Jan 1st, 2024](#)

¹⁰ Submission of the Flights Attendants' Association of Australia to the Aviation Green Paper. (2023). [Flight Attendants' Association of Australia. Nov 2023](#)

DRAFT FOR CONSULTATION

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Licensed Aircraft Maintenance Engineers (LAMEs) are crucial for ensuring aircraft safety and airworthiness. However, the combination of an ageing workforce, low numbers of new entrants, wages and rigorous training requirements have resulted in a shortage of LAMEs in the Australian Aviation industry. The occupation has been in shortage in nearly all states and territories for at least four consecutive years,¹¹ with an average of 136 job ads per month in 2024¹² From 2016 onwards, an average of 152 aircraft engineer licences¹³ have been issued annually, contrasting starkly with the average of 297 licences issued per year over the preceding decade.¹⁴ Shortage of LAMEs results in operational challenges such as delayed aircraft maintenance at airports.

Although ABS data indicates that there were 11,890 Aircraft Maintenance Engineers in Australia in 2024,¹⁵ this does not distinguish between licensed and unlicensed engineers. Similarly, CASA data does not provide an accurate reflection of LAMEs available in the workforce. The CASA annual report indicates that there are 9,891 licence holders as of 2023/24, but these licences are perpetual, and not an indication of the actual licence holders who are currently working.¹⁶

Ground operations crew and security screening personnel are also experiencing workforce shortages which have strained airport operations and capacity to maintain optimal safety and security for passengers.¹⁷ The relative insecurity of these jobs has added to recruitment difficulties¹⁸ as the high rate of turnover limits the ability to build a core competencies and skills needed for a sustainable workforce. Implementation of employee incentives linked to training and upskilling can be helpful to improve retention. Many current airport employees have entered the field indirectly, often transitioning from roles in the transport industry or local government. Pathways to positions in areas such as terminal operations, security, or ground handling are less structured. As articulated by the Australian Airports Association, creating and promoting clearer career pathways for the diverse roles within airports can enhance workforce attraction and retention, provide opportunities for upskilling existing staff, and align training programs more closely with industry requirements.¹⁹

Initiatives proposed in the Australian Government's Aviation White Paper – Towards 2050²⁰ support a vision for an agile and skilled aviation workforce. The initiatives include:

- Streamlining training and accreditation pathways for LAMEs, including modular licensing, recognition of overseas licences and improving alignment between CASA licensing and VET qualifications (Initiative 18)



- Setting expectations for large Australian airlines to train and employ newly qualified pilots rather than relying solely on recruiting experienced pilots from other aviation businesses (Initiative 19).

As identified in the Aviation White Paper, the industry has a significant role to play in training and employing newly qualified pilots and will need to put arrangements in place to upskill them for a long and sustainable career path. For the LAME workforce, the modular licensing initiative introduced by CASA will be a welcome first step in addressing workforce shortages, but further work is needed. There needs to be more funding available for self-funded LAME pathways with flexible learning options to attract more people to maintenance roles. The industry also needs to attract younger people to this career through engaging with schools and establishing school-based programs early on. We will continue to collaborate with our adjacent Jobs and Skills Council, [Manufacturing Industry Skills Alliance](#) on the LAME shortages.

To attract new generations to Aviation roles, ISA's survey respondents highlighted that wages and work conditions need to be competitive with other industries. The survey also indicated that opportunities for pilot job sharing could assist with talent retention. The respondents suggested the importance of supporting pilot and maintenance roles to transition to roles in uncrewed systems and Advanced Air Mobility technologies, assisting in retaining the workforce and leveraging existing expertise.

ISA's roundtable discussions and consultations have confirmed that recognising foreign licenses can offer a temporary solution to workforce challenges, provided the regulator establishes appropriate arrangements to facilitate this process. However, achieving long-term stability will require a coordinated and sustainable approach to attraction and retention.

Actions Underway:

- [Improving Careers Information](#)

Future Research and Consultation:

- [Promotion of Aviation Industry](#)
- [Skilled Migration](#)

¹¹ Occupation Shortage List. (2024). Jobs and Skills Australia

¹² Jobs and Skills Australia. (2025). Internet Vacancy Index

¹³ Civil Aviation Safety Authority. (2024). [Annual report 2023-2024](#)

¹⁴ Regional Aviation Association of Australia. (2022). [Aircraft maintenance engineer shortage – crisis and opportunities](#)

¹⁵ Australian Bureau of Statistics, Labour force survey: Detailed, November 2024, Jobs and Skills Australia (JSA) Trend data.

¹⁶ Civil Aviation Safety Authority. (2024). [Annual Report 2023-2024](#)

¹⁷ Australian Financial Review. (2022). [Airports say jobs shortages 'could persist'](#)

¹⁸ Parliament of Australia. (2022). [Rural and regional affairs and transport references committee](#)

¹⁹ Australian Airport Association. (2023). [Response to Aviation White Paper](#)

²⁰ Department of Infrastructure. (2024). [Aviation White Paper – Towards 2050](#)

B. National coordination is essential to build Australia's Aviation workforce

The Aviation industry in Australia does not have a nationally coordinated approach for promoting aviation careers to address the challenge of workforce attraction and retention. Although various workforce development initiatives have been implemented across the country, these efforts are fragmented and lack the coherence needed to address the industry's pressing needs.²¹

Without a unified approach for addressing workforce challenges, the industry cannot best identify and maximise opportunities for innovation and collaboration between stakeholders that would enable the Aviation industry to attract and retain talent.

Local and regional initiatives that operate in isolation from each other do not have the opportunity to share best practice and resources and miss the broader reach and impact that a coordinated effort could achieve.²² This isolation can lead to inefficiency and unnecessary duplication of investment and resources while hindering the ability to learn from successful programs. Without a coherent central framework, there is also a risk that initiatives are misaligned with industry needs, hampering efforts to address skill gaps and meet evolving industry demands.

As the demand for skilled professionals in aviation continues to grow, the industry needs a coordinated approach that will foster awareness about available opportunities and career pathways in Aviation.

Investment in national mentoring programs has been identified by large airlines as an effective means of using existing talent to support workforce development.²³ Industry stakeholders have suggested that there is a need for greater understanding of airport specific workforce roles and skill needs.²⁴ Further research should focus on the range of roles at airports and consider the impact of technological change and changes to skills and training.

“Fragmented approaches lead to limited traction on key issues.”

Industry Stakeholder,
ISA Workforce Plan 2025 Survey

The Australian Government²⁵ has noted that establishing clear training and career pathways is pivotal for encouraging more individuals to pursue careers in the Aviation industry. Career pathways serve as transparent roadmaps, guiding individuals on how to progress within the industry, outlining the qualifications and skills required for each career step. Early engagement with schools will be essential to raise awareness about diverse career pathways in the Aviation industry to show school aged children that the industry is accessible and achievable

All these efforts and initiatives require a nationally coordinated approach to help ensure optimal outcome towards a sustainable workforce pipeline. This can be achieved by concentrated collaboration among key industry stakeholders.

Actions Underway:

- [VET Workforce Project](#)

Future Research and Consultation:

- [National coordination of training](#)

MEGATREND

Limited diversity in operational roles is a challenge across all transport industries

C. Diversity imbalance hinders industry growth

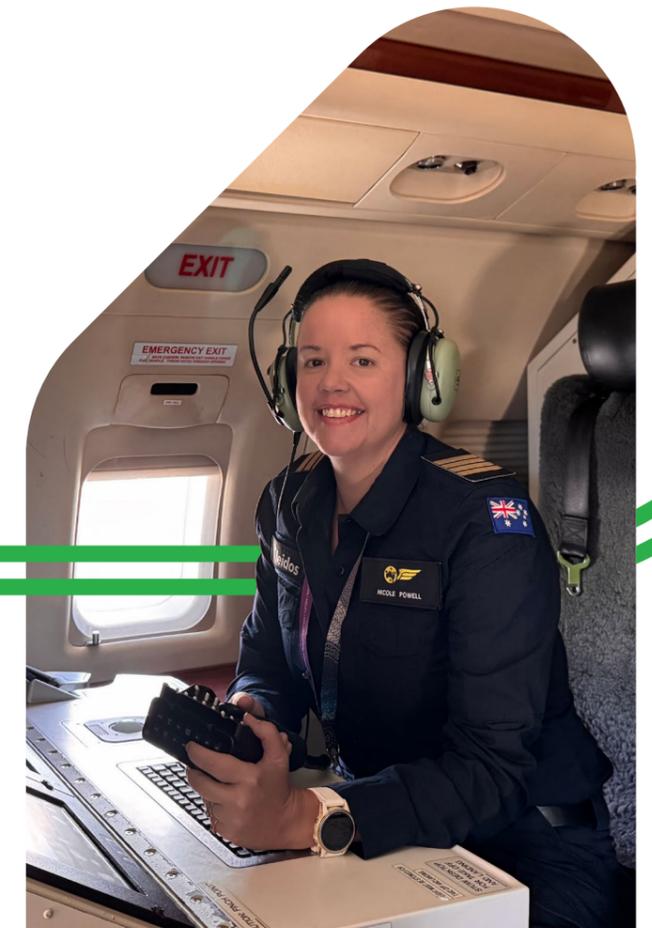
Increasing diversity and inclusion in the Aviation industry is crucial for tackling skills shortages by ensuring that the industry is drawing from the widest possible pool of potential workforce entrants. Greater diversity brings more varied perspectives, skills and experience into the workforce, which benefit organisations by fostering more innovative work practices, creative solutions and better problem-solving. This can be especially valuable in the Aviation industry where safety is paramount.

Many roles in the Aviation industry are male dominated. The LAME workforce has a notable gender imbalance (93.2% male).²⁶ Lack of diversity in the industry contributes to occupational shortages by deterring a range of potential recruits. Cohorts that are underrepresented in the workforce encounter barriers to entry due to a lack of role models in the industry, gender-based capability assumptions, and limited access to career information.

The Australian Government's Aviation White Paper – Towards 2050²⁷ supports a vision for greater diversity in the aviation workforce. Initiative 20 in the White Paper²⁸ proposes establishing a new Gender Equity Charter with the Aviation industry that commits to employment targets for women in senior and operational roles and eliminates gender pay gaps.

Broadening workforce participation can be challenging for employers who may need to adapt generational attitudes and expectations to create appealing and supportive work environments that align with the values and career aspirations of new entrants without compromising safety and efficiency.

Although the industry has implemented a range of initiatives to increase diversity and inclusion in the workforce, further action is needed to address the gender imbalance in the Aviation industry by attracting women to critical roles, especially in engineering and piloting, and providing resources and strategies to support their career development. Targeted campaigns need to have a mechanism to help ensure these initiatives translate into aviation careers. Employers also need to promote information about aviation careers and create an inclusive environment through education and cultural change to attract a more diverse workforce



²¹ Department of Infrastructure. (2024). [Aviation White Paper – Towards 2050](#)

²² McKinsey. (2023). [Short-haul flying redefined: The promise of regional air mobility](#)

²³ Qantas Group. (2023). [Qantas group submission to the Aviation Green Paper 2023](#)

²⁴ Australian Airport Association. (2023). [Response to Aviation White Paper](#)

²⁵ Australian Government. (2023). [Aviation Green Paper Towards 2050](#)

²⁶ Australian Bureau of Statistics (2023, quarterly average) Labour Force Survey, EQ08 - Employed persons by Occupation unit group of main job

²⁷ Department of Infrastructure. (2024). [Aviation White Paper – Towards 2050](#)

²⁸ Department of Infrastructure. (2024). [Aviation White Paper – Towards 2050](#)

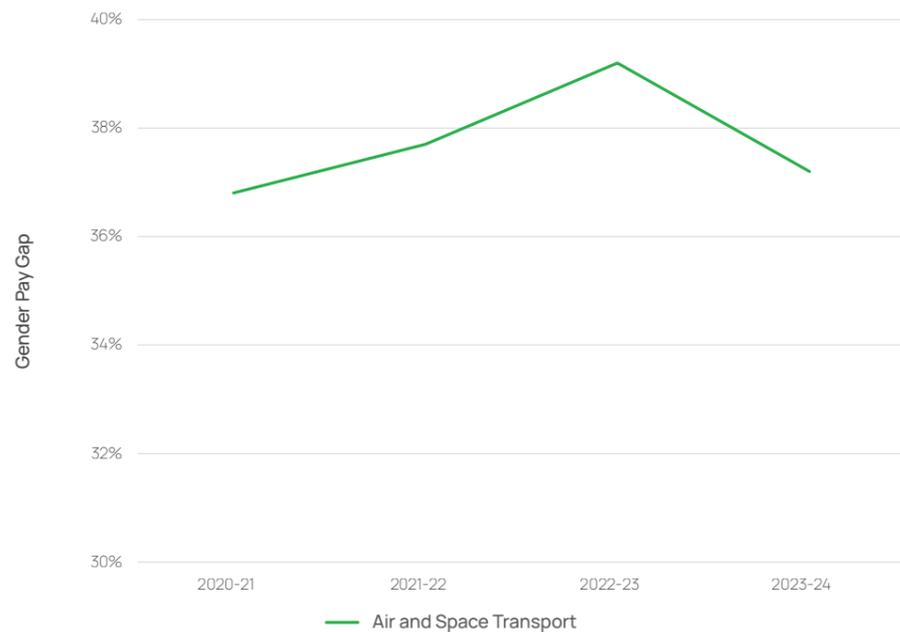
The promotion of women in aviation is critical to meeting future industry workforce needs through increased labour force participation, building a sustainable talent pipeline and fostering diversity of thought and skills in the workplace.

- Qantas Group Submission to the Commonwealth Government's Aviation Green Paper 2023

Since 2019, the Women in Aviation Industry Initiative,²⁹ funded by the Australian Government, has supported a range of initiatives to encourage girls and women into careers in Aviation. These include awareness and outreach activities targeting school students, leadership forums to drive cultural change, and programs to build inclusion skills for flight instructors. Further action will continue under the initiative to 2026 with a focus on identifying opportunities around leadership and culture, visibility and awareness, collaboration and continuous improvement.³⁰ This will include developing and providing resources to help women build careers in the industry and improve their economic security.³¹

Individual employers have also invested in initiatives to improve gender balance and diversity in the workforce. These include scholarships for female and First Nations students, career education and outreach, and representation targets for recruitment. Gender disparity is also reflected in remuneration practices, with the aviation industry showing a considerable gender pay gap of 37.2% in average total remuneration (Figure 3).

Figure 3: Median gender pay gap in total earnings for the aviation industry



Source: WGEA Industry Data Explorer 2024, Data Explorer Industry Results 2023

WE HAVE A
*considerable
gender pay
gap*

²⁹ Department of Infrastructure, Transport, Regional Development, Communications and the Arts. [Women in the Aviation industry initiative](#)

³⁰ Department of Infrastructure, Transport, Regional Development, Communications and the Arts. [Women in the Aviation industry initiative](#)

³¹ Department of Infrastructure, Transport, Regional Development, Communications and the Arts. (2023). [Women in the Aviation industry initiative - Next phase strategic action plan](#).

Industry stakeholders have identified a significant underrepresentation of women in technical roles at airports. On average only 8% of technical roles at airports are filled by women, while women hold around 35% of management and professional roles.³² Workforce diversity initiatives need to focus beyond pilots and aviation engineers to also encompass other roles at airports such as Aerodrome Reporting Officers and Ground Operations crew.

Industry stakeholders have identified opportunities for increasing industry participation by First Nations people and others from underrepresented groups. Jobs roles that are in shortage and have low barriers to entry are ideal entry points into the industry. The Australian Airports Association has reported that many safety and regulatory roles are difficult to fill at airports in regional and remote Australia.³³ Airfield Reporting Officers (AROs) are essential to ensuring safe airfield operation and compliance with CASA regulatory requirements. Supporting First Nations people in regional and remote areas to achieve an ARO credential is one way to provide meaningful employment 'on country' and address an occupational shortage.

To support First Nations people into the Aviation industry, industry stakeholders have recommended that the Australian Government work with the sector to establish, build and fund intensive First Nations mentoring programs.³⁴ Supporting First Nations recruits with dedicated retention, training and career progression strategies and initiatives, helps ensure that talented First Nations employees are attracted to roles in the aviation industry and set up for long term success.

Australian Government collaboration with First Nations people is exploring opportunities for First Nations people in the emerging sector of drone operation.³⁵ In 2024, a series of policy conversations identified recommendations to guide future action in this area.³⁶ The recommendations focus on enhancing accessibility and support for First Nations people, simplifying registration and accreditation processes, reducing regulatory burdens, increasing First Nations trainers.³⁷

Future Research and Consultation:

- Diversity

³² Australian Airport Association. (2023). [Response to Aviation White Paper](#).

³³ Australian Airport Association. (2023). [Response to Aviation White Paper](#)

³⁴ Virgin Australia. (2023). [Virgin Australia Group submission in response to the Aviation Green Paper](#)

³⁵ Department of Infrastructure, Transport, Regional Development, Communications and the Arts. (2024). [First Nations drone policy project](#)

³⁶ Department of Infrastructure, Transport, Regional Development, Communications and the Arts. (2024). [First Nations drone policy partnerships – Group workshop outcomes report](#)

³⁷ Department of Infrastructure, Transport, Regional Development, Communications and the Arts. (2024). [First Nations drone policy partnerships – Group workshop outcomes report](#)



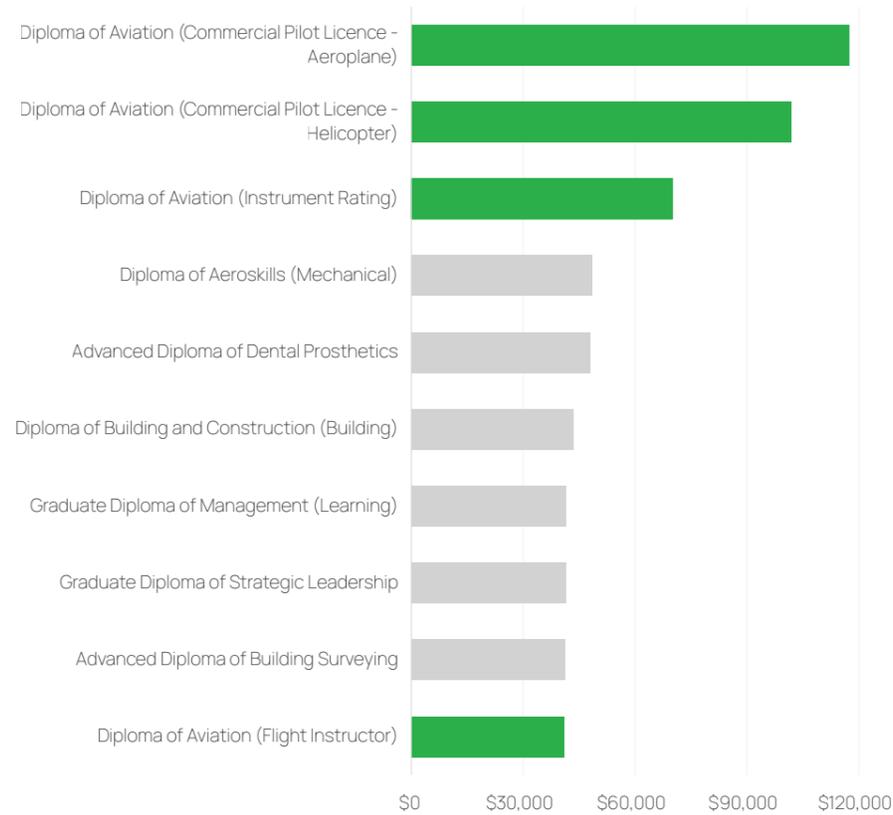
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D. High cost of training is a major barrier

The cost of training in the Aviation industry, including training for pilots, is significantly higher than the cost of training in other industries (Figure 4). To meet regulatory requirements, Aviation training includes mandatory flight hours which have a significant impact on total tuition fees.

Figure 4: The ten most expensive vocational courses in Australia



Source: yourcareer.gov.au, Estimated fee (upper bound), February 2025

WE HAVE
expensive aviation training

Aviation training is often funded by individual learners through personal savings and loans. Some training providers offer payment plans or financing options that help learners to manage the cost of tuition. Airline sponsorships, government programs and scholarships are also available to assist with the cost of training, but more support is needed to make training accessible and create opportunities for less experienced pilots to enter the industry.



Industry stakeholders report that regulatory change that allows greater use of simulation technology and virtual delivery of competency-based training can help to reduce pilot training costs. Such changes would make training more affordable for new workforce entrants, in line with the Australian Government's vision for a skilled, secure and productive aviation workforce outlined in the Aviation White Paper – Towards 2050.³⁸

Apprenticeships and government funding for priority occupations can make training more accessible, especially for pilot and flight instructor roles that have very high training costs.³⁹ Industry stakeholders have emphasised the need for government funding through apprenticeship programs or VET loans for Aviation occupations in shortage. Reducing the cost of training would provide more opportunities for people to access training, especially for those from underrepresented cohorts. Our stakeholders survey indicates that government support and funding should be targeted towards individuals rather than institutions to enable the workforce to search for the most affordable and suitable course rather than being limited by government funded courses that may not be as convenient. Employers will also need to invest in their industries current and future workforce training and skills development. Our survey outcomes highlight that the VET system is ideal for the training of future pilots in a much shorter and cost-effective manner.

Industry stakeholders have proposed several solutions to overcome the barrier of high training costs. These include:

- removing the 20% one-off levy on VET Student Loans for pilot students across all jurisdictions as this fee has a disproportionate impact on high-cost pilot qualifications⁴⁰
- expanding the funding available for training and training allowances for employers to train and upskill the workforce, particularly with respect to technical trades⁴¹
- reducing the HECS debt for pilots and other priority aviation roles working in regional areas with the loan reduction linked to length of time served in a regional area
- increasing government investment in aviation apprenticeship programs or establishing apprenticeship programs for occupations in shortage to incentivise engagement by employers and apprentices and making the programs accessible to a broader range of people.⁴²

Future Research and Consultation:

- Commercial Pilot Apprenticeship

³⁸ Department of Infrastructure. (2024). [Aviation White Paper – Towards 2050](#)

³⁹ ICAO. (2024). [Next generation of aviation professionals \(NGAP\) strategy](#)

⁴⁰ Qantas Group. (2023). [Qantas group submission to the Aviation Green Paper 2023](#). Pg. 115

⁴¹ Qantas Group. (2023). [Qantas group submission to the Aviation Green Paper 2023](#). Pg. 114

⁴² Virgin Australia. (2023). [Virgin Australia Group submission in response to the Aviation Green Paper](#). Pg. 23



Training needs to be realigned with current industry demands in both the Aviation and Transport & Logistics industries

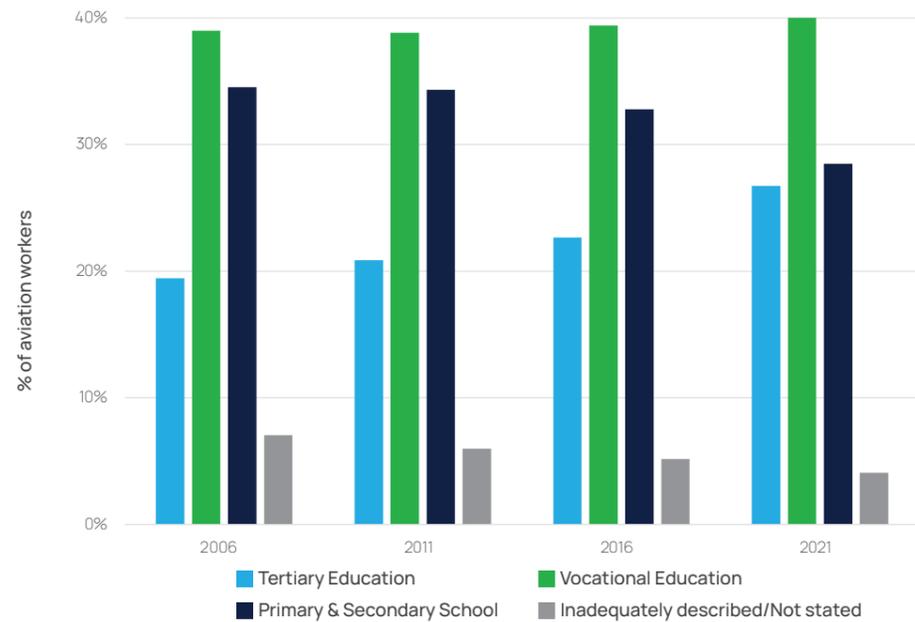
E. Qualifications need better alignment with industry needs and regulations

Better alignment between qualifications and licensing requirements will improve the consistency of training for aviation professionals and establish a uniform and reliable basis for recognising individual competency and professionalism.⁴³

Vocational training needs to be better aligned with industry standards and licenses

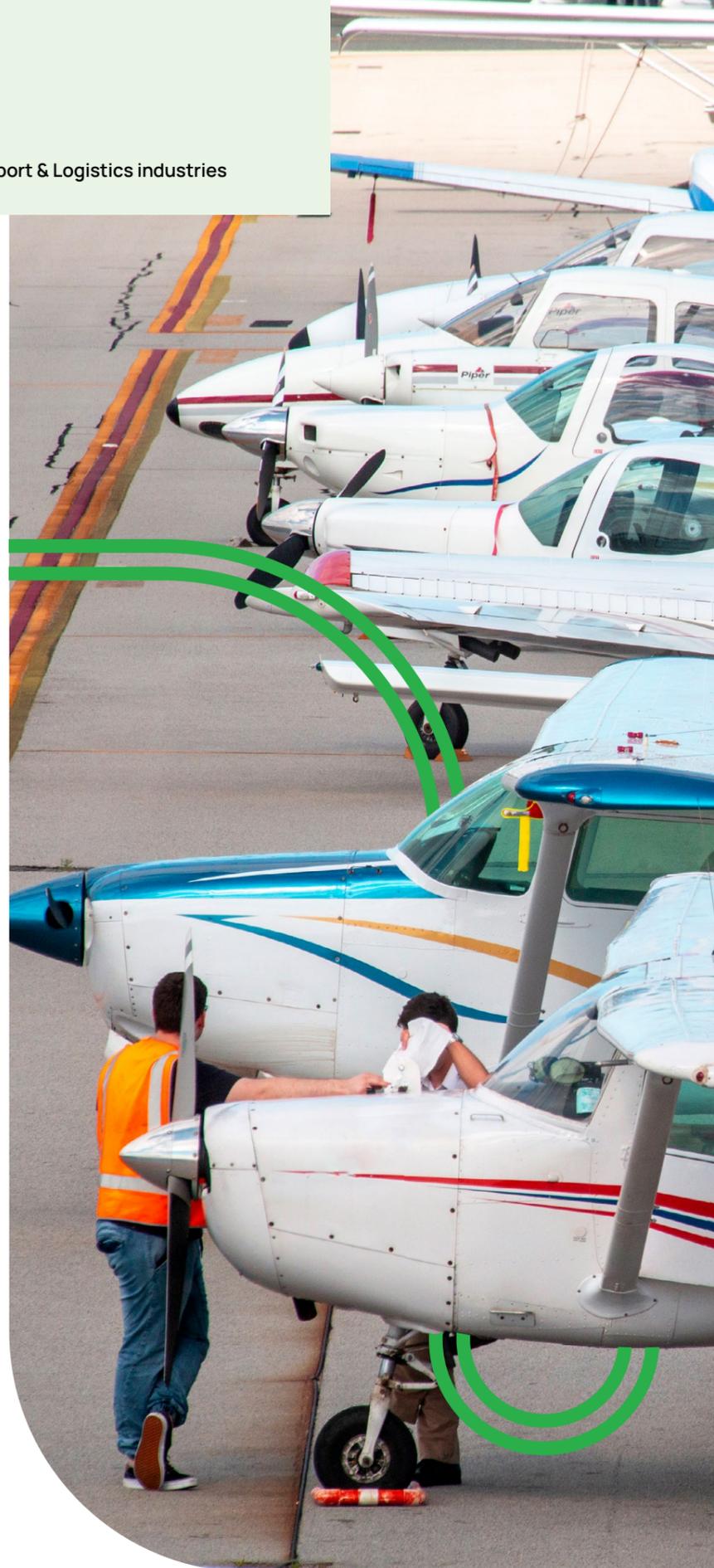
With around 40% of aviation workers holding a VET qualification (Figure 5), the VET sector plays a crucial role in supplying the required workforce for the aviation industry.

Figure 5: Educational attainment of aviation workers (2006-2021)



Source: ABS, Customized Census Data (2006, 2011, 2016, 2021)

VOCATIONAL EDUCATION PLAYS A *critical role*



⁴³ ICAO. (2024). [Next generation of aviation professionals \(NGAP\) strategy](#)

In a highly regulated industry where safety and compliance are critical, specific and up-to-date skills and knowledge are required in many roles.⁴⁴ In ground operations, workers are responsible for aircraft safety procedures and emergence response, but some training programs do not reflect the latest industry standards and practices. The gap between training and industry requirements leaves some recruits needing extensive on-the-job training, which increases costs for employers and delays the integration of new staff into their roles. Survey responses have highlighted that training needs to match industry needs and funding models should provide the best value for students.

Industry stakeholders have reported the following areas for better alignment with industry needs and licensing requirements:

- Air Traffic Controller qualifications need to be better aligned with International Civil Aviation Organisation (ICAO) standards.
- The Diploma of Aviation Commercial Pilot Licence needs revision for better alignment with Civil Aviation Safety Authority (CASA) licensing requirements. This qualification provides skills and knowledge for performing commercial pilot duties, but it does not fully cover the requirements for gaining a CASA licence as a commercial pilot with additional study required to attain a Commercial Pilot Licence (CPL).

Drone related qualifications could be aligned with the CASA Remote Pilot Licence (RePL). Our survey indicates that RPAS vocational training requirements are evolving rapidly. Keeping an industry-led approach is important for drone qualifications.

⁴⁴ ICAO. (2024). [Next generation of aviation professionals \(NGAP\) strategy](#)

A skills review can help ensure training meets industry needs

In-house training is frequently used to train cabin crew and ground operations staff. Because this training does not use nationally recognised qualifications, it can lead to skills gaps, lack of transferability between workplaces, and increased on-the-job training costs for gap training.

Industry stakeholders have suggested that a skills review should be conducted to ensure qualifications meet industry needs. The recognition and inclusion of transferable skills in aviation training has potential to support industry entry pathways for workers from adjacent industries into aviation roles that are in high demand.

Industry-aligned training will create clearer career pathways

Qualifications that are outdated or not well aligned with industry needs are less engaging for participants and fail to adequately prepare them for roles in the aviation workforce. When students do have not acquired knowledge and skills that align with current industry standards and practice, additional employer investment is required to retrain new recruits.

Proposed Actions:

- [Ground Operations Skills Analysis](#)
- #### Actions Underway:
- [Aviation Rescue](#)
 - [Cabin Crew Skills Recognition](#)
 - [Defence Flight Instructor](#)
 - [Diploma of Aviation \(Flight Instructor\) Review](#)
 - [Remote Pilot Licence \(RePL\) Alignment](#)
 - [Transport Security Protection](#)
 - [Qualification Reform - Purpose Categorisation](#)

Future Research and Consultation:

- [Diploma of Aviation \(Commercial Pilot Licence\)](#)

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Decarbonisation is driving demand for new skills across all transport industries

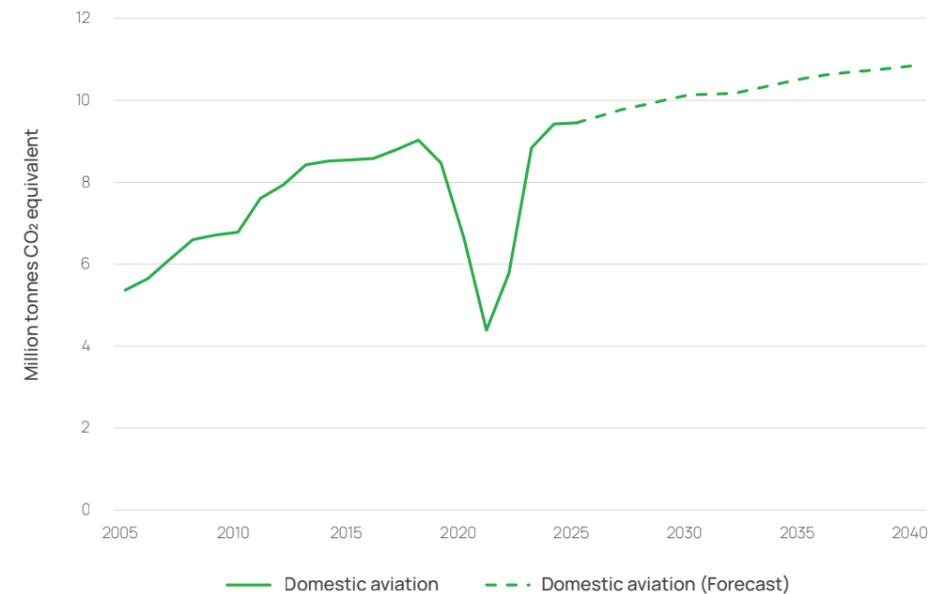
F. Decarbonisation efforts demand new skills

The adoption of Sustainable Aviation Fuels (SAF), hydrogen, and electric aircraft will require new skills for operation and maintenance.⁴⁵ Airlines are modernising their fleets as a considered step towards a more sustainable Aviation future.

The Aviation industry is adopting decarbonising technologies and systems to meet its environmental goals.⁴⁶ The introduction of SAFs, alternative fuels such as hydrogen, and electric aircraft means that new skills will be required in the workforce to operate and maintain the new technologies efficiently and safely.

However, the transition to sustainable fuels will take time in the Aviation industry.⁴⁷ According to recent projections, emissions from domestic aviation will continue to grow about 1% per year in the fifteen years to 2040 (Figure 6). While alternative fuel technologies are not expected to become commercially viable before 2030, they will play an important role in reducing emissions.

Figure 6: Domestic aviation emissions in the baseline scenario, 2005 - 2040



Source: DCCEEW (2024) Australia's emissions projections 2024

AVIATION EMISSIONS
forecast to grow

⁴⁵ Department of Infrastructure, Transport, Regional Development, Communications and the Arts. (2023). [Scenario Analysis of the Future of Australian Aviation](#)

⁴⁶ Australian Government. (2023). [Aviation Green Paper Towards 2050](#)

⁴⁷ McKinsey. (2024). [How the aviation industry could help scale sustainable fuel production](#)

Large investment is required to transition aircraft, airports and fuel logistics infrastructure to sustainable fuels in the near term.

Australian airlines are also modernising their fleet with investments in new, more fuel-efficient aircraft to support the achievement of emission reduction targets.⁴⁸ Transitioning to SAF-type aircraft can become more feasible for businesses with the implementation of supportive methods or loan schemes, enabling a smoother and more affordable transition.

Hydrogen aviation has potential, but infrastructure gaps must be addressed

Hydrogen aircraft could serve more markets, but the extensive infrastructure changes that are required will slow their adoption and limit their impact until around 2050. A transition to hydrogen-powered aircraft will require new infrastructure for fuel storage, handling, and refuelling – and the development of expertise in safely handling hydrogen for ground crew and maintenance personnel.⁴⁹

Training must evolve to support the shift to electric propulsion systems

Electric aircraft will play a role in reducing aviation emissions. These aircraft will be used for commuter and some regional flights as the energy density of batteries improves.⁵⁰ However, these short-haul flights account for only 3-4% of industry emissions.

Electric propulsion systems differ significantly from traditional jet engines, requiring new skills for maintenance and operation.⁵¹ Identifying the skills needed for these new technologies is a crucial task.

ISA survey results indicate that the transition to electric propulsion systems necessitates the aviation workforce to acquire new technical skills. This requirement extends beyond pilots to include maintenance personnel and ground crew, who will need training in electric propulsion systems, battery management, and system diagnostics. Consequently, it is essential to design specialised training or collaborate with industry groups to develop certification courses that address the unique skills required for electric aviation technologies

Sustainable Aviation Fuel (SAF) is the most immediate solution for reducing Aviation emissions

SAFs will be the most significant contributor to aviation industry decarbonisation. They are safe, technically feasible and compatible with current aircraft and infrastructure. The International Air Transport Association (IATA) estimates that SAF will provide 65% of the emissions reductions needed for the aviation industry to reach net zero by 2050.⁵²

SAF can be used in existing aircraft with minimal modifications, but its production, certification, and integration into current supply chains requires specialised knowledge and skills. Technicians and engineers must be trained in handling, testing, and maintaining aircraft systems that use SAF, ensuring compatibility and safety standards are met.

Future Research and Consultation:

- Sustainable Aviation Fuels (SAF) and Alternative Fuels



⁴⁸ Qantas Group. (2022). [Qantas group - climate action plan](#)

⁴⁹ Airports Council International. (2025). [Concept of Operations of Battery and Hydrogen-Powered Aircraft at Aerodromes](#)

⁵⁰ Hamilton Locke. (2024). [Decarbonising aviation: The flight plan to a low carbon future](#)

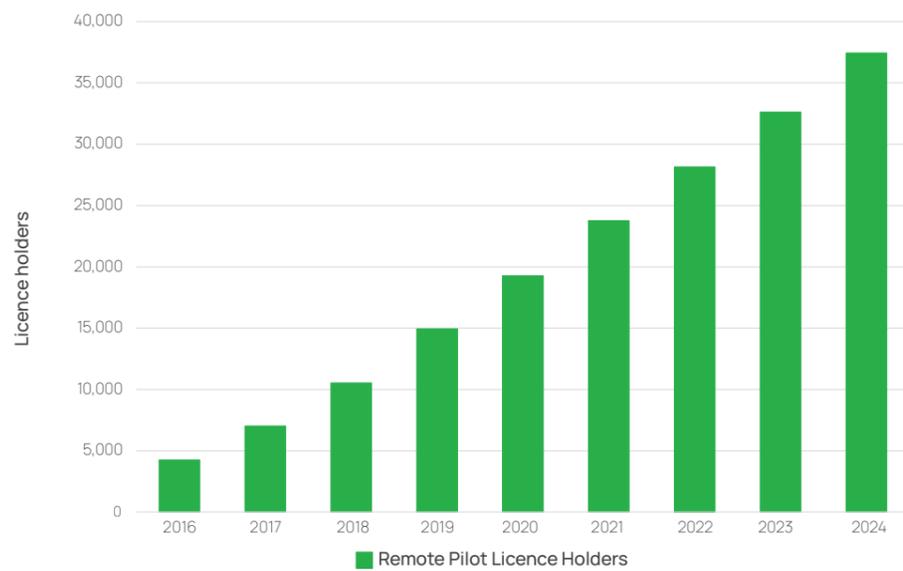
⁵¹ European Commission's Directorate-General. (2023). [Alliance for zero-emission aviation – Progress report](#)

⁵² Qantas Group. (2023). [Developing a SAF industry to decarbonise Australian aviation](#)

G. New skills are needed for emerging technologies

The aviation sector is experiencing significant technological advancements, particularly with the advent of Advanced Air Mobility (AAM) and the evolving use of Remotely Piloted Aircraft Systems (RPAS).⁵³ Reflecting this shift, the number of Remote Pilot Licence (RPL) holders has more than doubled over the past five years, rising from 14,940 in 2019 to 37,441 in 2024 (Figure 7). The impact of these innovations is expanding rapidly, encompassing applications ranging from agricultural monitoring to complex infrastructure inspections. Their widespread uptake for multiple applications is set to revolutionise the Aviation industry, necessitating new skills and competencies that are not yet fully identified.

Figure 7: Remote pilot licence holders over time



Source: CASA, RPAS and AAM Strategic Regulatory Roadmap, 2024

Uncrewed technologies are reshaping the skills needed in the Aviation industry

Operating AAM and RPAS in complex environments demands advanced technical skills and a deep understanding of the regulatory landscape. However, the exact skills needed to effectively manage and operate AAM are still being defined, posing a significant challenge for workforce development. As AAM is an emerging technology, the industry needs to conduct a comprehensive skills analysis to identify training needs, pathways and how to prepare the workforce for the successful integration of AAM. Nationally recognised competency standards will be required for AAM operations, maintenance, and safety in alignment with CASA regulations and evolving Uncrewed Traffic Management (UTM) frameworks. Our survey results support the fact that as AAM technologies advance, the absence of standardised training with accredited qualifications presents a challenge for both current professionals transitioning into new roles and new recruits entering the sector. Survey respondents have indicated that AAM needs a systematic skills requirements analysis to identify current and emerging roles and training needs.

⁵³ CASA. (2024). [RPAS and AAM strategic regulatory roadmap](#)

CASA has developed the RPAS and AAM Strategic Regulatory Roadmap which aims to integrate emerging aviation technologies and systems into Australia's airspace and civil regulatory framework safely and efficiently. The roadmap identifies medium-term activities to review and implement standard training and licensing requirements for people involved in RPAS and AAM to ensure they have the right skills and knowledge to operate these systems safely and efficiently.⁵⁴

In December 2024, the Australian Government released an Uncrewed Traffic Management Action Plan that focuses on safely integrating drones and other uncrewed aerial systems into national airspace.⁵⁵ It aims to establish a robust framework for efficient operations, enhanced safety, supporting innovation, and fostering economic growth, ensuring alignment with global standards for advanced air mobility. National policy, standards and regulatory requirements that arise from the implementation of the Action Plan will influence and inform the training and licensing solutions that are needed by this emerging sector in future.

A tiered RPAS licensing approach can enhance safety and efficiency in uncrewed Aviation

In Australia, the current licensing system for uncrewed systems is not tiered when compared to crewed systems. The Remote Pilot License (RePL) is the primary certification available, but it is often insufficient for those operating more complex drones in challenging environments. This has potential to impact safety and operational efficiency.

Industry stakeholders have identified a need for a more robust licensing framework for RPAS licensing. With a tiered licensing system for RPAS the industry can have a better understanding of the level of skills and knowledge required for RPAS systems based on their categories. This will also enable the industry to develop career pathways where additional training will lead to a higher-level licensing and better career progression. Our survey respondents confirmed the need for a review of the RPAS licensing for improved safety outcomes, enhanced regulatory efficiency, increased accessibility, and ensure relevance to industry use cases.

Artificial intelligence is reshaping Aviation with smarter operations, security and passenger experiences

The Australian Government's Aviation White Paper recognises that, when implemented responsibly, artificial intelligence (AI) has potential to deliver positive outcomes for the Aviation industry and consumers.⁵⁶ The integration of AI into aircraft and aviation systems can improve safety and efficiency. AI also has the potential to transform airport operations by streamlining baggage handling and security screening, resulting in a better experience for passengers with optimised queues, reduced wait times and strengthened security.⁵⁷

The operation of these systems, especially in complex environments, demands advanced technical skills and a deep understanding of the regulatory landscape.

Future Research and Consultation:

- [Advanced Air Mobility](#)
- [Tiered Approach to RPAS Licensing](#)

THE NUMBER OF REMOTE PILOT LICENCE HOLDERS IS *growing rapidly*



⁵⁴ CASA. (2024). [RPAS and AAM strategic regulatory roadmap](#).

⁵⁵ Department of Infrastructure, Transport, Regional Development, Communications and the Arts. (2024). [Uncrewed Aircraft Systems \(UAS\) Traffic Management \(UTM\)](#)

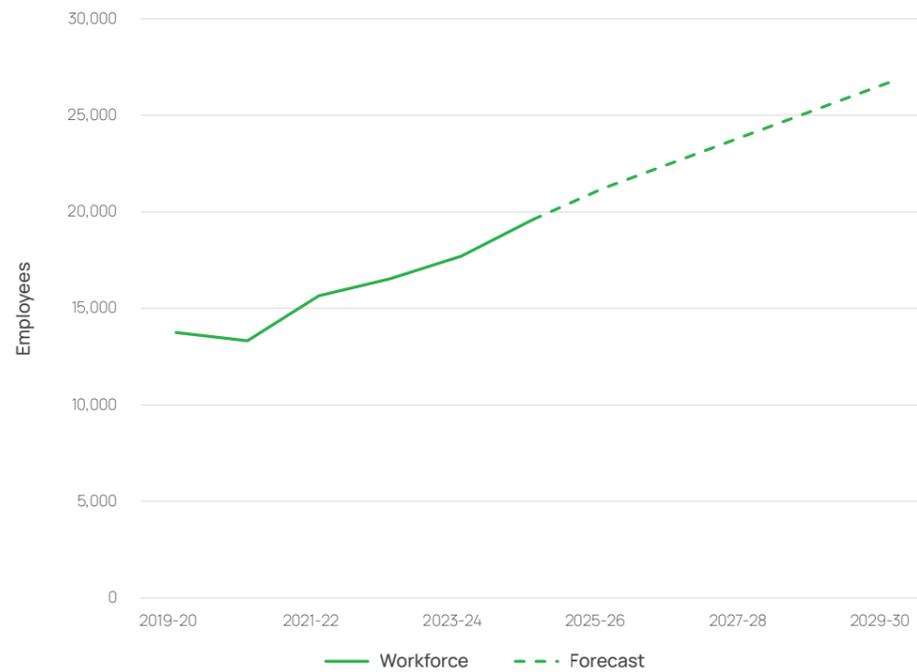
⁵⁶ Department of Infrastructure. (2024). [Aviation White Paper - Towards 2050](#).

⁵⁷ International Airport Review. (2024). [Baggage trends shaping the aviation industry](#)

H. Vocational training is critical for Australia's growing Space industry

Australia's strategic location, highly skilled workforce, and world-class research facilities position it to leverage a rapidly expanding space sector—growing at around 6% each year to 2030 (Figure 8). The Australian geography provides opportunity for rocket and satellite launches, operating ground stations for spacecraft communication and tracking, and remote sensing capabilities for earth observation.⁵⁸

Figure 8: Employment growth in Satellite Communications and Astronautics



Source: IBISWorld 2024, Industry Wizard, Satellite Communications and Astronautics in Australia

THE NUMBER OF SPACE INDUSTRY WORKERS IS
forecast to grow

The Australian space industry is attracting an increasing number of companies that are developing and implementing cutting-edge technologies and services for space logistics. In 2024, the Australian Government issued the first ever Australian launch permit for a commercial orbital rocket that will be launched from Abbot Point, Queensland in 2025.⁵⁹

The logistical and licensing challenges overcome by launch vehicle startup, Gilmour Space,⁶⁰ to progress their launch project demonstrates the potential for growth in this sector, and the need to develop a skilled workforce. However, there are currently no nationally recognised qualifications or specific industry training options available for emerging space industry roles.

⁵⁸ International Space Exploration Coordination Group. (2024). [Global exploration roadmap](#)

⁵⁹ Australian Space Agency. (2024). [First Australian commercial orbital launch permit issued](#)

⁶⁰ Space News. (2024). [Gilmour Space secures license for first orbital launch](#)

Clear vocational pathways can strengthen career opportunities in Space transport and logistics

As the industry expands, Australia's expertise will remain central to its progress. However, the specific skills and roles required in air and space transport are yet to be fully defined. To address this, ISA has recently undertaken a Space Transport and Logistics Skills Gap Analysis. The research has indicated that since space transport is a burgeoning industry, the specific nature of emerging jobs is yet to be fully known. However, there are specific areas where the vocational sector can help with future skilling the workforce by either developing new skills or contextualising the existing ones to cater for the space transport industry. These areas include inventory maintenance particularly for dangerous, sensitive or restricted goods; handling, storage, packaging and transporting of space-related goods; knowledge of the requirements and regulations around imports and exports of space items; and the commercial and security constraints related to returns, repairs and recycling space-related goods.

There is no training currently available within Australia that provides nationally recognised qualifications to enable practical industry skills development and the job-readiness needed for current and anticipated roles within the space industry. Developing nationally accredited training that can be delivered via schools or training organisations can be a significant step in recruiting the future workforce. Our Stakeholder survey confirmed that incorporating space-related training into existing aviation training pathways and qualifications is a positive step forward.

Actions Underway:

- [Air and Space Skills Gap Analysis](#)

Future Research and Consultation:

- [Space Transport Qualification](#)



I. Recruitment and funding challenges for General Aviation (GA)

General Aviation (GA) in Australia is a vital component of the country's aviation ecosystem and plays an important role in supporting other industries and the dispersed Australian community.⁶¹ GA encompasses a broad range of activities, including flight training, agricultural aviation, emergency medical services, aerial surveying, and recreational flying. The sector is pivotal in disaster relief efforts, offering rapid response capabilities during emergencies such as bushfires and floods.⁶² This diversity underscores its importance in enhancing connectivity, especially in remote and regional areas where commercial airlines may not operate. However, GA in Australia faces significant challenges, particularly in terms of funding, skill development, and attraction and retention of the workforce.⁶³ Misconceptions about life in regional areas hinder the recruitment of qualified staff. Additionally, funding fleet replacement is challenging, and airport operating costs have increased significantly in the past year, making it difficult to maintain affordable pricing. Establishing a resource for career advisors and students to understand available industry careers could help address these issues. Our survey respondents suggested that general aviation careers require high visibility and targeted advertising to attract new pilots.

Limited amenities and high living costs hinder regional workforce retention

Recruiting and attracting personnel to regional and remote areas presents a significant challenge for GA. While there is growing demand for pilots, engineers and maintenance technicians in regional and remote areas, detracting factors such as limited housing availability, higher living costs, restricted access to essential services, and fewer lifestyle options make it difficult to draw workers to these areas.⁶⁴ Our survey results suggested that providing subsidies can help attract more regional workers to these areas.

⁶¹ General Aviation Advisory Network. (2023). [General Aviation Strategy 2024](#)

⁶² Australian Aviation. (2025). [MAF's vital role in Arnhem Land: Providing lifesaving services and supporting education](#)

⁶³ General Aviation Advisory Network. (2023). [General Aviation Strategy 2024](#)

⁶⁴ National Housing Supply and Affordability Council. (2024). [State of housing system](#)



Funding challenges undermine the safety and growth of regional airports

Many regional airports, which are the backbone of GA operations, struggle with inadequate funding. This reduces their attractiveness as employment options and hampers their ability to maintain and upgrade infrastructure, impacting the safety and efficiency of operations. Addressing the deterrents of regional living will be essential for securing the skilled workforce needed to maintain efficient and sustainable aviation operations in these locations.

Better alignment between VET and CASA licensing and defined career pathways are vital for General Aviation growth

Aligning vocational education training (VET) qualifications with CASA licensing is important to the sustainability of the general aviation sector. The General Aviation Strategy 2024⁶⁵ notes that there have been encouraging recent developments in this area with CASA's modular licensing proposal. However, industry remain concerned progress has not been made as rapidly as the sector requires to meet pressing workforce needs.⁶⁶

Advanced Air Mobility requires targeted programs to support workforce readiness

AAM and other new technologies has profound implications for the skills and workforce within the General Aviation sector. The regional and remote routes are logical targets for the initial introduction and testing of new aviation technologies. AAM requires targeted programs to support the workforce and benefit General Aviation and regional areas in Australia.

Table 2: Strategic initiatives of the General Aviation Strategy 2024

1	Training Pathways for Critical Skills
2	Airport and Infrastructure Facilities
3	General Aviation Sector Economic Review
4	Building on CASA's General Aviation Workplan and Program of Improvement
5	Airspace for General Aviation Operations
6	Reposition for New Technologies, Design and Manufacturing

⁶⁵ General Aviation Advisory Network. (2023). [General Aviation Strategy 2024](#), Pg. 20

⁶⁶ General Aviation Advisory Network. (2023). [Submission to Terms of Reference, Aviation White Paper](#)

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Proposed Actions

The 2025 Workforce Plan identifies the following proposed actions developed in consultation with industry to address the sector-specific and cross-sector issues.

Table 3: Proposed actions to Address Challenges and Drivers

Ground Operations Skills Analysis		
Labour Market Dynamics	Proposed Action/Strategy	Key Stakeholders
<p>Driver/Challenge: E. Qualifications need better alignment with industry needs and regulations</p> <p>Symptom • Skills shortage</p>	<p>Activity: To identify current ground operations industry practices, job role tasks and responsibilities, including the use of new and emerging technologies, and existing gaps to determine how vocational qualifications can be revised to encompass current and future skills needs.</p> <p>Components: Research and consultation with key stakeholders, including employers and training providers focusing on identifying key tasks and responsibilities for each ground operations job role and review the suitability of the national qualifications. The research will also determine if new Units of Competencies or Skill Sets will need to be developed to accommodate for new and emerging skills.</p> <p>Impact: This project will determine how to align the qualifications with current industry practices and to boost their industry recognition and help build pathways into closely affiliated roles to improve job mobility.</p> <p>Anticipated timing: July 2025 – June 2026</p>	<ul style="list-style-type: none"> • Menzies Aviation • Dnata • Swissport • Transport Workers' Union • AUS Handling • CASA • RTOs • Oceania Ground Force • Major airlines • Other relevant ground handling organisations based on the number of airports they operate in.
Digital skills		
Labour Market Dynamics	Proposed Action/Strategy	Key Stakeholders
<p>Key challenge/driver G. New skills are needed for emerging technologies</p> <p>Symptom: Skills Shortage</p>	<p>Activity: Analyse and review DigComp for use in Australian VET sector. Develop tools for use and undertake a review of occupations in using tools.</p> <p>Components:</p> <ul style="list-style-type: none"> • Analyse and review DigComp for use in Australian VET sector <ul style="list-style-type: none"> • Develop tools like the Australian Digital Capability Framework's Digital Occupational Profile which can inform Training Product Design, training delivery and support a systematic approach to the analysis of skills supply and demand. • Undertake a review of occupations in using tools/templates <ul style="list-style-type: none"> • Re-validate Rail Digital Skills project work using the new DOPs • Undertake further DOP work on more occupations in our industries. • Coordinate a strategic review across our training packages with respect to the impact of digital transformation using the ESCO to compare to Australian Digital Skills from the completed DOPs. <p>Impact:</p> <ul style="list-style-type: none"> • Training qualifications and units that facilitate improved training and assessment of transferrable digital skills that match industry requirements. • Impact of training product development/maintenance work provides maximum benefit for industry, whilst minimising the impact of training product churn for RTOs <p>Timing: 2025 - 2027</p>	<ul style="list-style-type: none"> • Industry leaders • Industry peaks • JSCs • Relevant aviation associations and unions

Actions Underway

The following provides an update on ongoing actions aimed at addressing the challenges identified in the 2024 Workforce Plan, many of which remain relevant in 2025.

Air and Space Skills Gap Analysis		
Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver: H. Vocational training is critical for Australia's growing Space industry</p> <p>Symptom Skills shortage</p>	<p>Summary: To understand existing and emerging roles and skills needs in the Space Transport and Logistics industry and identify gaps to current VET training products.</p> <p>Impact: The project report has recommended skill needs to inform this emerging market. For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • 58 organisations involved in Space Transport and Logistics along with 56 contacts in the Higher Education sector were approached for interview.
Aviation Rescue		
Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver: E. Qualifications need better alignment with industry needs and regulations</p> <p>Symptom Skills shortage</p>	<p>Summary: Review existing qualifications for search and rescue to enhance their usability across adjacent sectors including emergency services using fixed wing aircraft.</p> <p>Impact: Updated training qualifications and units of competency to support greater training applicability across multiple sectors for fixed wing and rotary aircraft. For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • Department of Employment and Workplace Relations (DEWR) • Civil Aviation Safety Authority • Aviation Enterprises • Industry Associations • Unions • RTOs • SROs
Cabin Crew Skills Recognition		
Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver: E. Qualifications need better alignment with industry needs and regulations</p> <p>Symptom Skills shortage</p>	<p>Summary: The project will review the skill needs of cabin crew across airlines. It will investigate the barriers to industry recognition of the Certificate III in Aviation (Cabin Crew).</p> <p>Impact: By identifying the barriers that prevent industry from using the qualifications and making changes to the qualifications the project can benefit both the industry and individuals pursuing vocational qualifications, reducing costs and facilitating smoother transitions between airlines. For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • Department of Employment and Workplace Relations (DEWR) • Airlines • Peak Industry Associations • Industry Unions: Transport Workers' Union, Flight Attendants' Association of Australia, Australian Services Union • ITABs/Advisory Bodies

Defence Flight Instructor		
Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver: <u>E. Qualifications need better alignment with industry needs and regulations</u></p> <p>Symptom Skills shortage</p>	<p>Summary: Identify and bridge recognition gaps between military and civilian aviation training standards.</p> <p>This project involves collaboration between CASA, the Defence Aviation Safety Authority (DASA), and industry stakeholders and will support the Aviation industry's capacity to meet growing demand for skilled pilots.</p> <p>Impact: Streamlining the transition process to ensure that the expertise of defence flight instructors can be effectively integrated into civilian aviation.</p> <p>For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • Department of Employment and Workplace Relations (DEWR) • Civil Aviation Safety Authority • Defence Aviation Safety Authority • Defence • Industry Associations • Other JSCs - Public Skills Australia and Manufacturing Industry Skills Alliance

Diploma of Aviation (Flight Instructor) Review		
Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver: <u>E. Qualifications need better alignment with industry needs and regulations</u></p> <p>Symptom Skills shortage</p>	<p>Summary: The flight training industry faces significant challenges due to a shortage of instructors and trainers, particularly experienced staff such as senior instructors and flight examiners.</p> <p>The project will review and update the qualification to include current industry practices and better align it with Civil Aviation Safety Authority (CASA) licensing requirements.</p> <p>Impact: Closer alignment with the CASA's licencing, standards, and resources will enable consistency in training outcomes and reduce costs for learners.</p> <p>For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • Civil Aviation Safety Authority • Aviation Enterprises (Flight Schools) • Industry Associations • Unions • RTOs • SROs

Improving Careers Information		
Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver: <u>A. Key Aviation roles face ongoing shortages</u></p> <p>Symptom Under attractive occupation</p>	<p>Summary: To address attraction and retention challenges in the Aviation industry, this initiative develops a comprehensive repository of career information on specific occupations.</p> <p>Impact:</p> <ul style="list-style-type: none"> • Combat negative industry perceptions and misconceptions about available roles. • Informed students with a comprehensive list of qualifications and training programs available for each role including higher education qualifications and training programs. <p>For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • Aviation Strategic Workforce Planning Committee • Civil Aviation Safety Authority • State and territory licensing authorities • ITABs/Advisory Bodies • Industry training providers • Industry Employers • Industry associations and peak bodies • Industry Unions • Government Representatives

Remote Pilot Licence (RePL) Alignment		
Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver: <u>E. Qualifications need better alignment with industry needs and regulations</u></p> <p>Symptom Skills shortage</p>	<p>Summary: Align the Certificate III in Aviation (Remote Pilot) with the Civil Aviation Safety Authority's (CASA) Remote Pilot Licence.</p> <p>Impact: Enhance industry recognition of the Certificate III qualification by ensuring it supports training for skilled and compliant drone operators</p> <p>For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • Australian Association for Uncrewed Systems • Department of Employment and Workplace Relations (DEWR) • Civil Aviation Safety Authority • Aviation Enterprises (Flight Schools) • Industry Associations • Unions • RTOs • SROs

Transport Security Protection		
Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver: <u>E. Qualifications need better alignment with industry needs and regulations</u></p> <p>Symptom Skills shortage</p>	<p>Summary: Update the Certificate II in Transport Security Protection (TSP) to align it with regulatory changes, the latest technologies and current industry practices.</p> <p>Impact: Fit for purpose qualifications to support better alignment to industry need</p> <p>For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • Civil Aviation Safety Authority • Aviation Enterprises • Industry Associations • Unions • RTOs

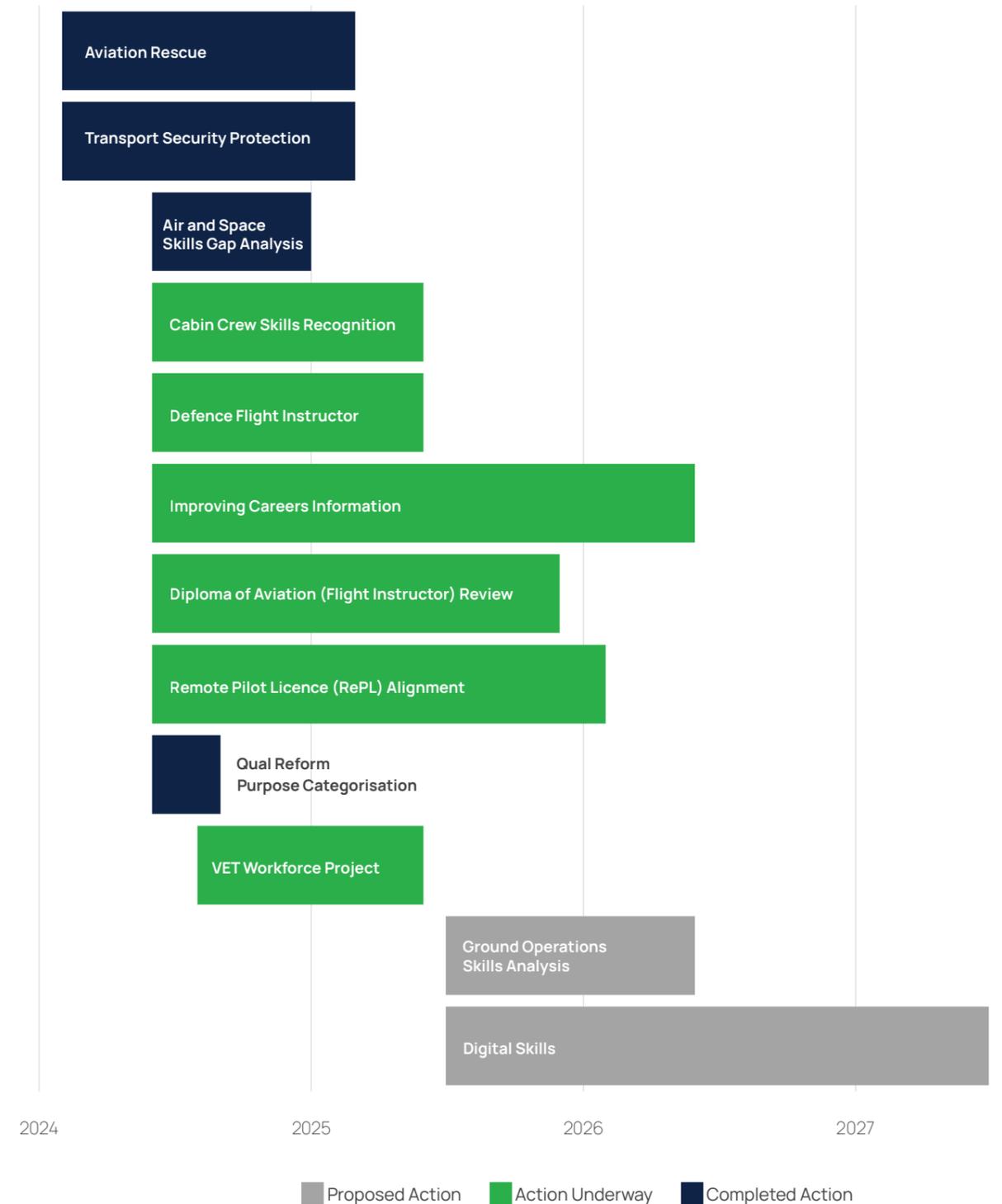
VET Workforce Project

Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver: B. National coordination is essential to build Australia's Aviation workforce</p> <p>Symptom Skills shortage</p>	<p>Summary: The VET Workforce Project is a Commonwealth funded initiative being led by the ten Job and Skills Councils with the aim to build and support a secure and sustainable VET workforce.</p> <p>The Australian Government, in collaboration with Jobs and Skills Australia has developed a VET Workforce Blueprint (the Blueprint) to support a high quality and sustainable workforce. The VET Workforce Blueprint has been developed in collaboration with states and territories to provide a roadmap to grow, support and sustain the VET workforce.</p> <p>To continue and further support the work VET Workforce Blueprint, Industry Skills Australia is undertaking a project that will concentrate on vocational education providers in the transport sectors (Aviation, Maritime, Rail and Transport and Logistics) to complement and contribute to the opportunities and actions included in the Blueprint.</p> <p>Impact: ISA will deliver a workforce study comprising the following components:</p> <ul style="list-style-type: none"> • Understanding the VET Workforce • VET workforce roles and needs • VET workforce pathways and pipelines • Future and emerging VET Workforce Issues <p>For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • Registered training organisations • Training regulators • Australian Education Union • State/territory training authorities • State/territory industry advisory bodies • Industry enterprises • Industry peak bodies/associations • Jobs and Skills Australia • Department of Employment and Workplace Relations

Qualification Reform - Purpose Categorisation

Labour Market Dynamics	Project Details	Key Stakeholders
<p>Challenge/Driver E. Qualifications need better alignment with industry needs and regulations</p> <p>Symptom Skills shortage</p>	<p>Summary: This project explored opportunities and implications for the industry arising from the Qualification Reform agenda.</p> <p>ISA developed a demonstration qualification that would cover employers' minimum requirements for a person to commence work in the following roles:</p> <ul style="list-style-type: none"> • Forklift driver (T&L) • Baggage Handler (Aviation) • Track Worker (Rail) <p>Impact: Along with other Jobs and Skills Councils, ISA's Demonstration Project informed advice provided by the Qualification Reform Design Group for consideration by the Skills and Workforce Ministerial Council. On 6 December 2024, Skills Ministers agreed to a new, purpose-based approach to VET qualifications design that is guided by design principles and will improve quality, simplify course designs and reduce complexity.</p> <p>For further details visit the ISA Website.</p>	<ul style="list-style-type: none"> • Industry enterprises from the sectors to be included in the qualification • Private, Public and Enterprise Registered Training Organisations (RTOs) • Industry organisations, peak bodies and regulators • Unions • Qualification Reform Design Group • State Training Authorities (STAs)

Timeline of Activities



DRAFT FOR CONSULTATION

DRAFT FOR CONSULTATION

Future Research and Consultation

Additional engagement, research and consultation activity has been identified to assist in the development of future strategies or initiatives to inform the 2025 Workforce Plan. These focus areas cover the key themes associated with our challenges and drivers and are not an exhaustive list as industry may raise additional issues as we work with them in 2024:

A. Key Aviation roles face ongoing shortages

Promotion of Aviation Industry

ISA will explore effective ways to promote the industry and highlight the professional nature of work and the current and future career opportunities in the industry. A key focus will be raising awareness among school children to create motivation and encourage students to consider careers in the aviation industry especially via VET pathways which provide a cheaper and faster opportunity to becoming a pilot. This can also include establishing partnership between industry and schools to promote aviation industry and career guidance programs.

Skilled Migration

In consultation with industry stakeholders, we will investigate the current temporary and permanent skilled work visas, including the recent transition from the Temporary Skill Shortage (TSS) visa to the new Skills in Demand (SID) visa, reviewing how they are meeting the needs of the workforce and addressing shortages.

B. National coordination is essential to build Australia's Aviation workforce

National coordination of training

ISA will consult with the industry to determine the best approach for a nationally coordinated approach to training and skills development in the aviation industry. This is aimed at advancing the Australian aviation industry through cutting-edge research, training, education, and mentoring initiatives to foster collaboration among employers, training providers, and key stakeholders

C. Diversity imbalance hinders industry growth

Diversity

Industry Skills Australia will actively engage with aviation industry stakeholders to thoroughly identify underrepresented cohorts. ISA will consult with stakeholders involved in initiatives such as Women in the Aviation Industry Initiative to leverage the existing activities or propose new ones. The Australian Federation of Air Pilots (AFAP) and the Australian and International Pilots Association (AIPA) are key stakeholders to engage with in this regard. Through extensive consultations, ISA aims to gain valuable insights into diversity challenges faced by the industry in different occupations and existing barriers to entry for underrepresented groups. ISA will also highlight and investigate the role of employers in investing in their workforce development and increasing diversity.

D. High cost of training is a major barrier

Commercial Pilot Apprenticeship

ISA will consult with the industry to explore the need for the establishment of a national pilot apprenticeship program. This will involve research and consultations with peak industry associations, unions, and state ITABs to assess the feasibility of this initiative and define its key elements. Aligned with the Aviation White Paper's policy direction, this initiative encourages large employers to recruit and train pilots, fostering workforce growth and skill development.

E. Qualifications need better alignment with industry needs and regulations

Diploma of Aviation (Commercial Pilot Licence)

ISA will consult with the industry to determine the best way to align the Diploma of Aviation (Commercial Pilot Licence - CPL) with CASA's CPL, creating a streamlined pathway between vocational qualifications and industry licensing requirements. In line with the Aviation White Paper's recommendations, the initiative ensures that aviation training meets national regulatory standards, fostering workforce readiness and consistency.

ISA will consult with the industry to explore the necessity and feasibility of aligning the Diploma of Aviation (CPL) with CASA licensing requirements.

F. Decarbonisation efforts demand new skills

Sustainable Aviation Fuels (SAF) and Alternative Fuels

Through a proactive approach, ISA will undertake further consultation with targeted stakeholders to comprehensively grasp the nature of the changes and the skills required by the implementation of SAF and alternative fuels. ISA aims to propose targeted strategies that equip the workforce with the necessary skills to work safely with SAF and alternative fuels.

G. New skills are needed for emerging technologies

Advanced Air Mobility

ISA will conduct further consultation and collaboration efforts with the aviation sector, focused particularly on the transformative changes introduced by Advanced Air Mobility. ISA seeks to comprehensively understand the dynamic nature of these developments. Recognising that such innovations bring forth unique workforce challenges, we aim to identify the precise skills required by this evolving landscape. ISA will also investigate and consult with stakeholders to assess the best way to identify AAM required skills and knowledge needs through a systematic Skills Analysis project.

Tiered Approach to RPAS Licensing

ISA will continue to consult with the industry to explore the benefits of having a tiered approach to RPAS licensing. The current licensing system does not cover the complexity of new systems and the tasks that can be performed by them. Having a more robust licensing regime allows for better identification of the required skills and training and can also provide a clear pathway for new entrants. ISA will consult with CASA and other relevant stakeholders to assess how best the industry can propose a robust framework to CASA for consideration. This will support industry growth and ensuring regulatory alignment with evolving operational needs.

H. Vocational training is critical for Australia's growing Space industry

Space Transport Qualification

ISA will consult with the industry to determine the need for a space-related qualification. The purpose is to establish a nationally accredited qualification for the space transport sector in collaboration with the Manufacturing Industry Skills Alliance or other relevant Joint Skills Committees (JSCs). ISA will engage in research and consultations with key space industry stakeholders to determine the qualification's content and appropriate level, ensuring it meets sector-specific needs. This initiative helps address workforce requirements, supports emerging technologies, and strengthens Australia's role in the global space transport industry.



Industry Skills
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