Industry Skills Australia

Jobs and Skills Councils
An Australian Government Initiative

Rail 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.

Disclaimer
Whilst all care and diligence has been exercised in the preparation of this report, Industry Skills Australia Limited does not warrant the accuracy of the information contained within and accepts no liability for any loss or damage that may be suffered as a result of any reliance on this information.

Acknowledgements
Industry Skills Australia Limited acknowledges and thanks representatives of the industry that provided their assistance in developing the Rail Industry, Draft 2025 Workforce Plan with funding from the Department of Employment and Workplace Relations under the Jobs and Skills Council Program. ISA also acknowledges the Traditional Custodians of Country throughout Australia.

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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

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	• 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	• 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	• 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	• 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	• 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	• Strategic Workforce Planning Committee • Industry • VET System • Schools Sector • Higher Education • Individuals	• Strategic Workforce Planning Committee • Governments • Industry	• Strategic Workforce Planning Committee • Governments • Industry • VET System • Schools Sector • Higher Education • Individuals	• Strategic Workforce Planning Committee • Governments	• Industry • VET System • Schools Sector • Higher Education • Governments
HOW WE CONSULT	• Meetings • Webinars • Emails • Roundtables • Supply Chain Leader's Summit	• Internal meetings and input from SWPC • Internal meetings • Surveys	• ISA website • Webinar • Email and social media • Regional Roundtable	• ISA website • Webinar • Email and social media • Meetings • Conference presentations	• ISA website • Webinar • Surveys • Conference presentations • Meetings

Industry **Overview**

The Rail industry is critical to Australia's economy, society, and environment, providing mobility to millions of passengers, and vital freight services across the country with over 33,000km of tracks[1]. With a presence in every major metropolitan and most regional areas of Australia, the Rail industry is a significant contributor to the national economy and generated an estimated annual revenue of $23.6 billion in 2023-24[2].

Rail industry activities can be categorised into four occupational areas:

Rail Operations - managing, operating, co-ordinating and supporting services for rail vehicles.

Rail Infrastructure - managing and maintaining rail infrastructure, which includes tracks, signals, stations, yards, and other supporting facilities.

Safety - implementing safety protocols, conducting regular inspections and maintenance, and training personnel on emergency, human factors and fatigue procedures to ensure the safety of passengers, workers and rail infrastructure.

Rolling Stock Maintenance – conducting maintenance of any vehicle that operates on or uses rail. Rolling stock is a collective term for various types of rail vehicles including locomotives, freight wagons, passenger cars, track machines and road-rail vehicles

Over 50,000 people were employed in the Rail industry in 2024, and the workforce is projected to increase by 4.9% in the five years to May 2029 and 8.7% to May 2034 (**Figure 1**). The median age of Railway Track Workers, and Train and Tram Drivers in 2024 were 41 and 42 years[3], with women making up 11.8% of Rail workers in 2024[4].

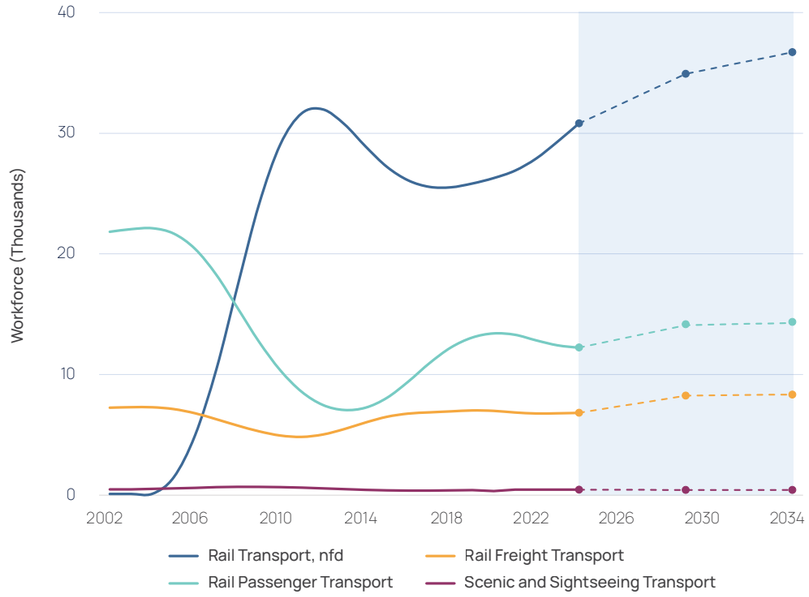
1 Bureau of Infrastructure and Transport Research Economics (BITRE). (2023, Yearbook 2023). Australian Infrastructure and Transport Statistics, Statistical Report

2 IBISWorld Industry Wizard (November 2024)

3 Jobs and Skills Australia. Occupation profiles data - November 2024

4 Australian Bureau of Statistics, Detailed Labour Force Survey, EQ08 - Employed persons by Occupation unit group of main job, November 2024 (annual average of original data)

Figure 1: Rail Industry Workforce 2002-2034



Source: JSA Labour Force Trending (Nov 2024), JSA Employment Projections (2024 to 2034)

WE WILL SEE

jobs growth

The Rail industry comprises private and public operators, passenger, and freight operators (including resource companies that build, own and operate dedicated rail infrastructure), rail infrastructure owners and managers, manufacturers and suppliers that operate in urban, regional, and rural areas of Australia[5]. The industry also employs or contracts people from peripheral industries when required, including but not limited to, civil construction, engineering, and labour hire companies.

5 Note: ISA does not cover electrical rail signaling, rail manufacturing, infrastructure construction. These areas fall under the coverage of other Jobs and Skills Councils.

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RAIL BUSINESS NO.

332

18	14	300
with 200+ employees	with 20-199 employees	with 0-19 employees

RAIL PASSENGER JOURNEYS IN 2020-2021

467 MILLION

KILOMETERS OF TRACK

31,000

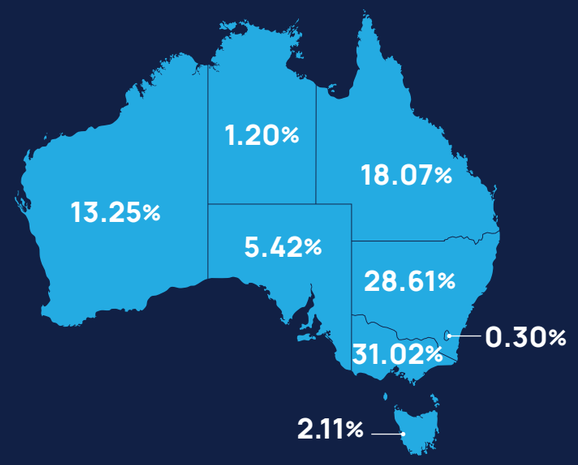
RAIL INFRASTRUCTURE MANAGERS

8

RAIL INDUSTRY ESTIMATED ANNUAL REVENUE $B 2025

23.6

BUSINESS DISTRIBUTION BY STATE %



RAIL INFRASTRUCTURE BUILT $B 2022-2023

12.3

GDP CONTRIBUTION $B 2024

11.33

RAIL OPERATORS INCLUDING FREIGHT & PASSENGERS

>50

RAIL NETWORKS

18 separate rail networks

11 different signalling systems

AVERAGE AGE

45

WORKFORCE‡

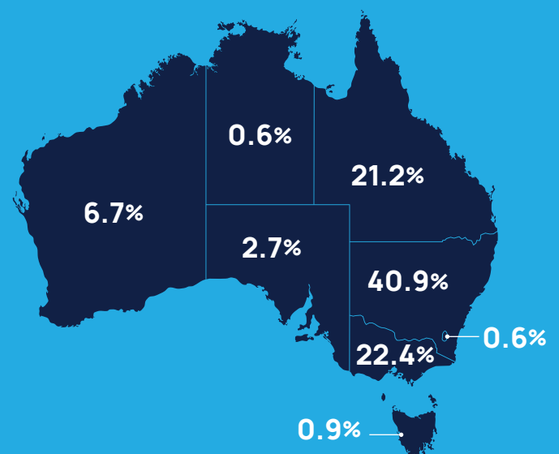
50,322K

REGISTERED TRANING ORGANISATIONS (RTO)

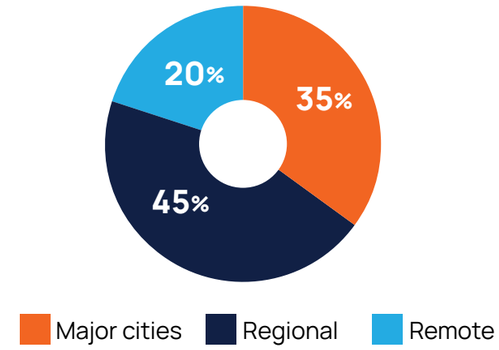
141

WORKERS WITH VOCATIONAL EDUCATION

WORKFORCE DISTRIBUTION



RESIDENTIAL DISTRIBUTION OF WORKERS



TOP 5 OCCUPATIONS

1	Train Driver	11198
2	Railway Track Worker	4757
3	Tram Driver	1591
4	Train Controller	1263
5	Railway Signal Operator	1203

WORKFORCE NEARING RETIREMENT (AGED 56-66)

18.5%

QUALIFICATION ENROLMENT 2023

22,222

MEGATREND

Occupational shortages are being reported across all transport industries

Key Challenges and Drivers

A. Industry faces critical occupational and skills shortages

The Australian rail industry is facing significant workforce capability challenges with shortages in many key occupations. At a time of unprecedented investment in rail networks, there is a risk that the industry may not have the capacity to build and operate the new infrastructure due to existing challenges in the recruitment and retention of workers.[6]

Industry has told us that the uncertainty in infrastructure project timelines, caused by construction delays and cost escalations in existing and planned projects, creates an additional challenge for workforce planning.

Occupational shortages are a challenge in operational, engineering, technical and training roles

Australia's rail industry is facing growing occupational shortages, with key roles such as train drivers, controllers, and track workers increasingly in demand. Initially affecting specific states, shortages have expanded nationwide, particularly from 2023 onwards (**Table 1**). Industry consultation has identified additional rail occupations in shortage, including signalling engineers and technicians, maintenance workers, electrical technicians, tunnellers, and trainers and assessors. In ISA's 2025 survey respondents advised the increased shortages and complications in forecasting is increasing workload strain and fatigue caused by covering staffing shortfalls. Further, employers noted the additional strain leads to ineffective workforce planning and an increase in outsourcing requirements.

Table 1: Rail occupations in shortage by state/territory

Occupation title	2021	2022	2023	2024
Railway Signal Operator	VIC	WA	QLD, WA	NSW
Railway Station Manager	VIC			
Railway Track Plant Operator	NSW	AUST	AUST	AUST
Railway Track Worker	VIC	VIC	AUST	AUST
Train Controller	AUST	WA	AUST	AUST
Train Driver	AUST	WA	AUST	AUST
Tram Driver			AUST	AUST
Travel Attendants nec				NSW

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

The National Transport Commission's Future Skills Framework[7] has identified 16 critical rail roles (**Table 2**) needed over the next five years to address workforce challenges and technological advancements.

Table 2: Critical rail roles needed over the next five years

Engineering Roles	Non-Engineering Roles
Software Engineer	Project Manager
Assurance Engineer	ICT Security Specialist
Signal Engineer	Train Controller
Track Engineer	Signal Electrician
Battery Engineer	Train Driver
Project Engineer	Data Analyst
Electrical Engineer	Data Scientist
Mechanical Engineer	Sustainability Adviser

These roles are essential to building, operating, and maintaining an efficient and modern rail system in Australia. The emphasis on digital and data-related positions reflects the industry's shift towards advanced technologies and the need for a workforce adept in these areas.
It should be noted that a large proportion of the current workforce gap for the Rail industry is related to the construction of new infrastructure and will be picked up in the activities of adjacent Jobs and Skills Councils (JSCs) including BuildSkills and Manufacturing Industry Skills Alliance.

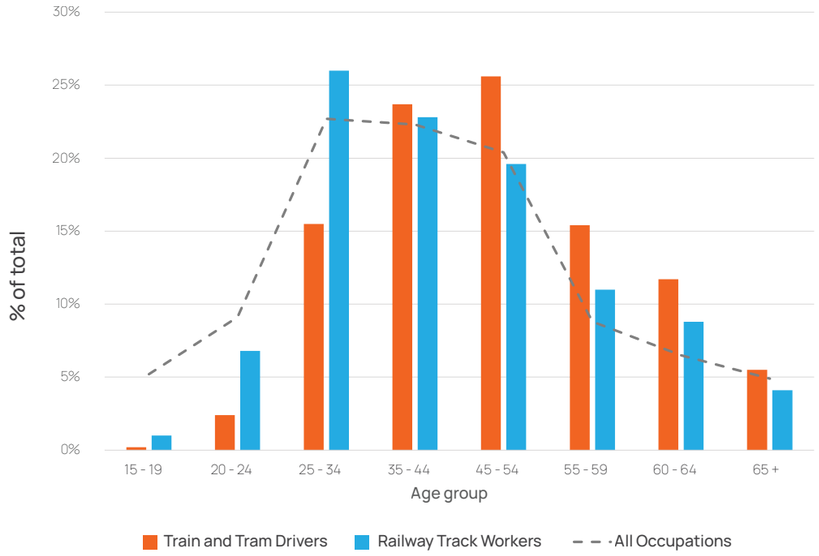
[6] Australian Railway Association. (2022). Addressing skills and resource challenges in the rail industry

[7] National Transport Commission. Meeting future rail skills demand | National Transport Commission

The Rail sector must adapt to retirements and evolving roles

The Rail industry has an ageing workforce with many employees approaching retirement age. According to Jobs and Skills Australia's (JSA) Occupation Profile data (**Figure 2**), up to 17.2% of Train and Tram Drivers are over 60, while the number of younger workers remains low, suggesting that retirements could further exacerbate current skill shortages in the near future. Similarly, the Australin Railway Association (ARA) expects the proportion of Train Drivers over 60 could be as high as 20.2%. [8]

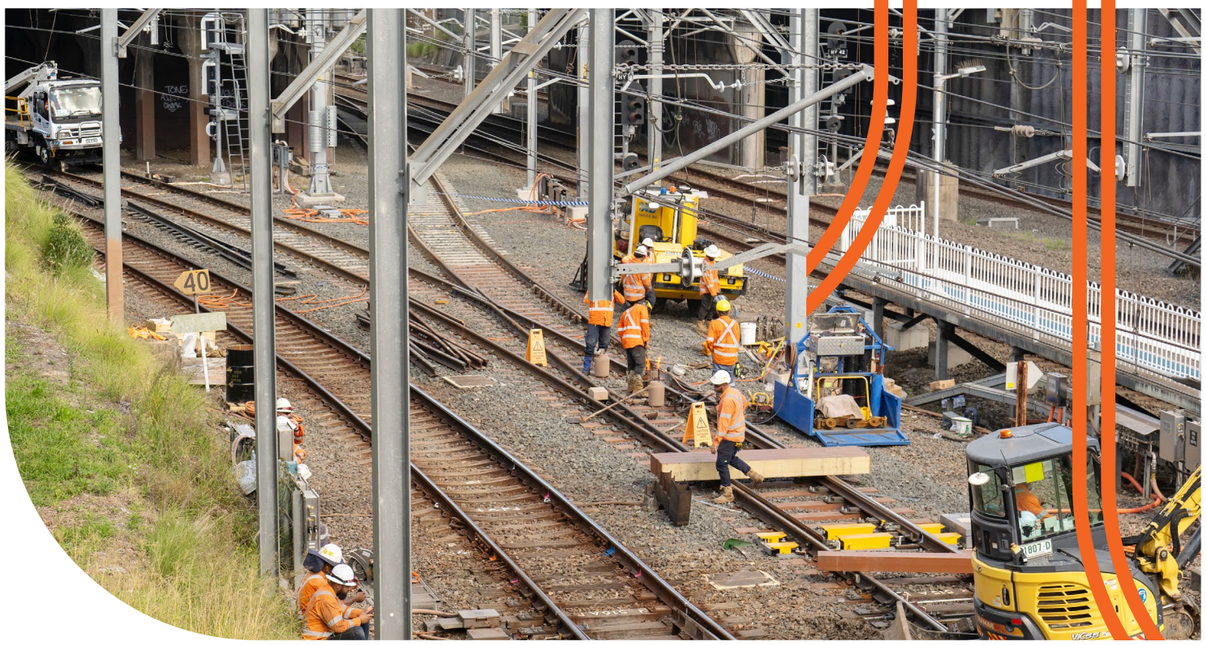
Figure 2: Age distribution of key rail occupations and national average



Source: JSA November 2024, Occupation Profiles Data, Tables 7 and 9

WE HAVE AN

older train and tram driver workforce



[8] Australasian Railway Association. (2023). The rail workforce: An analytical overview - Rail Skills Hub

Industry associations continue to advocate for urgent action to offset the upcoming wave of retirements. This will require a deeper understanding of the roles that will be most impacted and the way in which some roles will change due to technological advancements. Research commissioned by the ARA[9] in 2023 identified the job roles with higher retirement risks, with train drivers most prominent among these. Modelling for the research report presented a worst-case scenario that would result from employees retiring at age 62. In this case, about 35% of the rail workforce could be of retirement age by 2035.

The industry needs to build workforce capacity in preparation for the expected wave of retirements. In Census 2021, workers aged under 25 years made up less than 5% of the rail workforce.[10] Employers have said the challenge of attracting more young people into the industry and transferring industry knowledge to new entrants is being hampered by a shortage of experienced workers with the required trainer and assessor qualifications. For experienced rail workers, remuneration as a trainer is not enticing enough to make gaining the Certificate IV in Training and Assessment an attractive career pathway.

Demand for specialised skills in automation and digital skills are increasing

With industry adopting new technologies, employers see a growing need for specialised skills in automation, data analytics, and digital skills. Understanding how these skills are reshaping traditional rail occupations will be crucial for implementing strategies to attract and retain a skilled workforce.

ISA will continue to conduct research and consultation to inform the development of future strategies for the rail industry.

Identifying and prioritising work required to support the National Transport Commission's Future Rail Skills[11] requirements will focus on:

- skills and knowledge requirements for emerging technologies and decarbonisation
- strategies to assist with knowledge transfer of ageing workforce
- increased diversity targets
- strategies to improve attractiveness of the industry
- developing a skilled workforce to support the growing infrastructure pipeline
- approaches to mitigate the existing skills shortage

ISA will also continue to collaborate with other JSCs and key stakeholder groups to ensure that the needs of the Rail industry are considered holistically and are informed by relevant industry intelligence.

Ongoing work on skilled migration will continue to investigate the utility of temporary and permanent skilled work visas. As an example, the BLD Engineer's initiative[12] to support female engineers in the workforce focuses on assisting highly qualified, capable women and migrants who are struggling to find employment in the engineering sector. Examples of current practice will be considered to understand how skilled work visas are meeting the needs of the rail industry and addressing workforce shortages.

Future Research and Consultation:

- Future Rail Skills
- Collaboration between JSCs that cover rail occupations
- Skilled Migration
- International Benchmarks

[9] Australasian Railway Association. (2023). The rail workforce: An analytical overview

[10] ABS. (2021). Employment in the 2021 Census

[11] National Transport Commission. (2024). Future skills framework. Pg. 8

[12] BLD Engineers. (2024). Engineering with social responsibility

DRAFT FOR CONSULTATION

MEGATREND

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

B. Rail organisations struggle to attract young and diverse talent

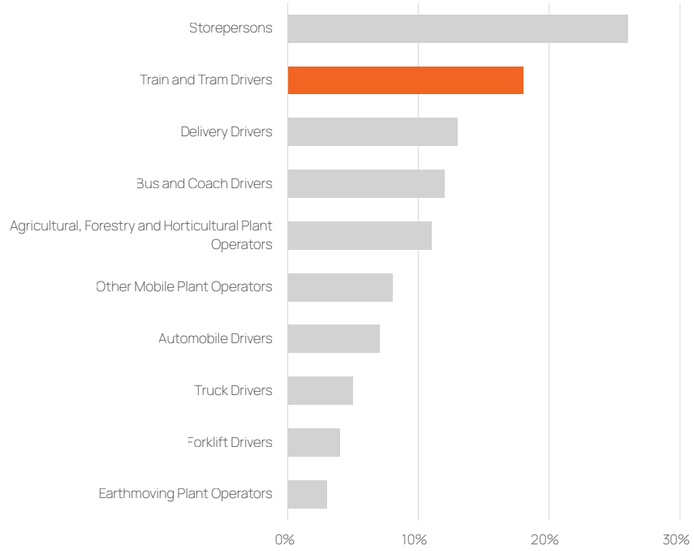
Workforce shortages in the rail industry have been worsened by a failure to attract young and diverse talent. With an ageing workforce, where many workers are approaching retirement, industry recognises there is a need to broaden recruitment options.

Increasing representation of under-represented groups strengthens the workforce

Although female representation in rail operational roles is relatively low—females account for only 11.8% of Rail operational workers[13]—initiatives like the Women in Rail Strategy 2023-26[14] are improving participation. Increasing female representation brings diverse skills to the workforce and employers understand the need to attract underrepresented workers as necessary to meeting their demands.

Proactive measures to enhance female participation are demonstrating positive outcomes. Although only 18% of Train and Tram Drivers are women, making the occupation appear male dominated, it has the second-highest female share among comparable roles (**Figure 3**). This share has risen sharply from just 4% in the 2006 Census[15].

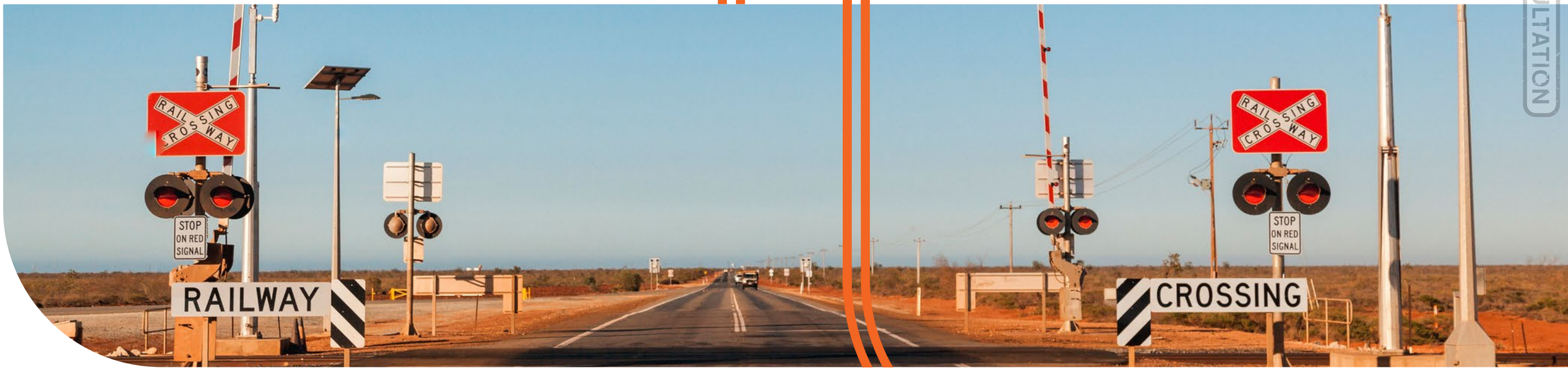
Figure 3: Highest Female Representation among Machinery Operators and Drivers



Source: JSA November 2024, JSA Labour Force Trending, Female Share, 4 Quarter Avg

WE HAVE

low female participation



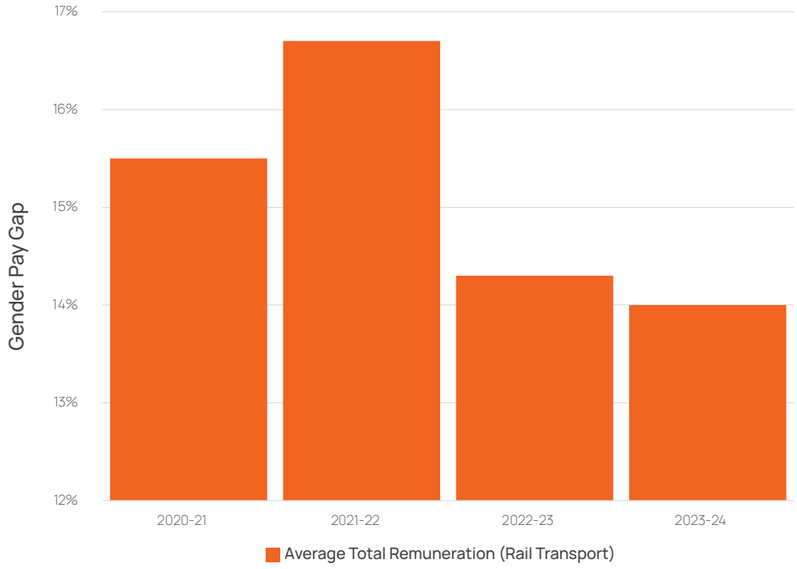
[13] Australian Bureau of Statistics, Detailed Labour Force Survey, EQ08 - Employed persons by Occupation unit group of main job, November 2024 (annual average of original data)

[14] Australasian Railway Association. (2023). ARA Women in Rail Strategy 2023-2026

[15] Australian Bureau of Statistics. (2006). '2006 Census - Employment, income and education', TableBuilder

The Rail sector's gender pay gap, at 14% in 2024, continues to improve (**Figure 4**), reflecting efforts taken to address gender disparities.[16] This progress highlights the industry's commitment to creating a more equitable work environment. However, ongoing efforts are necessary to further reduce the gap and support workforce attraction and retention.

Figure 4: Median gender pay gap in total earnings for the rail industry



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

WE CONTINUE TO HAVE A
gender pay gap

The representation of First Nations Australians in the Rail industry is comparatively high. While First Nations Australians represented 2.3% of all workers in Census 2021, representation was twice as high among rail workers (4.7%). On the other hand, representation of workers with a disability within the Rail industry, is comparatively low. Nationally, the 2021 Census recorded about 1% of the labour force as having a disability, with the Rail industry showing about half that percentage. [17]

Lack of visibility of underrepresented groups can also deter people from diverse backgrounds from considering roles in the industry, thus perpetuating a cycle of underrepresentation. To address labour shortages, the industry will need to adopt new recruitment practices and foster a more inclusive and diverse workforce.[18]

The Rail sector must diversify recruitment to stay competitive

Enhancing recruitment strategies to attract a broader range of candidates will be necessary for the industry to meet its future demands.[19]

It will also be necessary for the rail industry to build skills and capability internally. Robust skilling regimes will need to be in place to help diverse new workforce entrants who cannot be expected to immediately replicate the skills and productivity of experienced retiring workers.[20]

[16] Workplace Gender Equality Agency. Data Explorer: Industry mid-point for average total remuneration (47 – Rail Industry) Retrieved 24/02/2025
[17] Australian Bureau of Statistics (2021) '2021 Census - Employment, income and education', TableBuilder
[18] National Transport Commission. (2024). Future skills framework.
[19] National Transport Commission. (2024). Future skills framework.
[20] Victoria State Government. (2023). Rail skills strategy 2022-2026

ISA's survey highlights the need for promotion of varying job roles and career specialisations across the Rail industry to attract suitable candidates in central and remote locations. Respondents indicated that there is a lack of career progression and the current structure impacts retention.

Improving the perception of Rail careers may help with recruitment challenges

Industry stakeholders have told us there are community misperceptions about the nature of work in the Rail industry, with limited awareness of the range of roles and career pathways. Employers in ISA's 2025 survey also highlighted the need for promotion of career pathways. To overcome negative perceptions of working in rail, the industry could better promote itself to potential new entrants as a desirable career option. The technology credentials required of the industry continue to grow which can appeal to younger candidates.[21] Additionally, the rail sector's gender pay gap (**Figure 4**) performance provides competitive remuneration for female candidates. Rail employers would benefit from highlighting these aspects of working in the sector.

Industry stakeholders would like to strengthen efforts to promote career pathways by providing information to career co-ordinators and educating parents about the financial and social benefits of careers in rail. Employers recognised that collaboration between the rail industry, the education sector and government is a constructive way that workforce capability and capacity challenges can be addressed.

Industry Skills Australia will work with stakeholders to support these and other initiatives that help to attract underrepresented groups to the sector, such as school leavers, women, First Nations people and people from culturally and linguistically diverse communities, and to address any barriers to entry for these groups.

Programs, including incentives, also need to be in place for older workers to assist with training and mentoring of the future rail workforce, and promotion of rail as a rewarding career path.

Actions Underway:
- Improving Rail Career Information

Future Research and Consultation:
- Workforce attraction and career transition

[21] Rail Skills Hub. (2024). Attracting a new generation of rail talent

C. Lack of rail interoperability hampers labour mobility

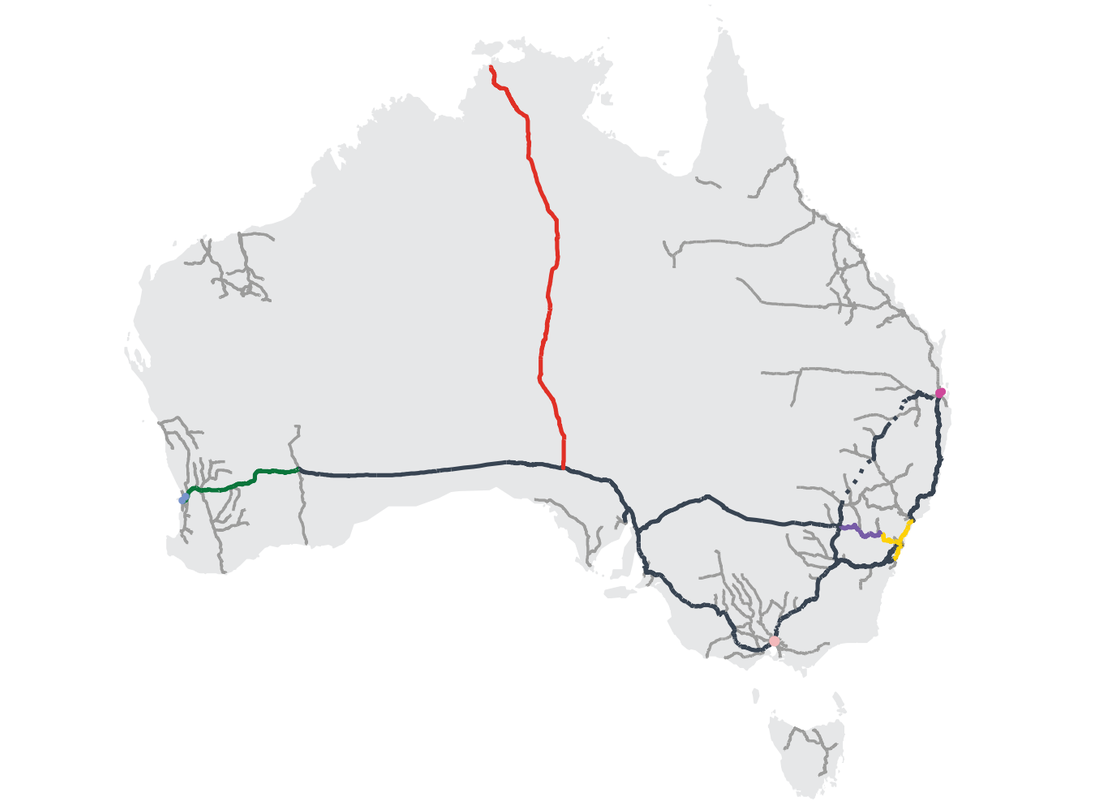
Lack of national interoperability is a known feature of Australia's rail networks. Australia's rail system consists of 18 separate networks, each with its own operational rules, technologies and systems. As a result, individual networks have developed their own specialised training and assessment processes. Currently, rail workers must familiarise themselves with up to 12 different rule books and continuously maintain their competencies for each network they work on.[22] Standards for rolling stock and components, and the operating rules for rail infrastructure and communications and control systems, also vary across jurisdictions.

[22] National Transport Commission. Reducing the burden on rail workers

Table 3: Barriers to workforce mobility

18 SEPARATE RAIL NETWORKS	Each has its own set of rules, systems, and technologies
12 RULE BOOKS	Workers must be knowledgeable in multiple **rule books** across **different networks**
COMPETENCY CHALLENGES	While training shares common elements, there's **no mutual recognition**
ONGOING RETRAINING	Workers are **reassessed on skills they already possess** when moving between jobs and jurisdictions

Figure 5: Railway Infrastructure Map of Australia



Source: National Transport Commission 2025, Network information [Interactive map]

WE HAVE
disparate networks
ACROSS AUSTRALIA

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Improving national rail interoperability will enhance workforce mobility

Industry continues to highlight that the differences between rail networks present a significant challenge for labour mobility. Employers have told us workers with qualifications and experience on one network cannot easily transfer to another location or between the passenger and freight industry sectors because their skills and knowledge may not be recognised or applicable.

Improving national rail interoperability is a National Cabinet priority,[23] and current investments in infrastructure offer an opportunity to work towards a harmonised network across Australia. Recent efforts have focussed on streamlining the rolling stock approval process and developing mutual recognition of rail skills training. These initiatives aim to reduce costs, improve workforce mobility and enhance the overall efficiency of the rail network.

Streamlining training requirements can cut costs and downtime

Training and competency requirements are driven by jurisdiction and/or network compliance requirements for Rail Infrastructure Managers (RIMs) and operators.[24] Contractors operating across multiple jurisdictions and/or networks are the most impacted by differing requirements. Operators continue to raise concerns that retraining workers to meet RIM/operator requirements for new projects, results in significant costs and associated downtime. ISA's 2025 survey strongly supports this challenge in the industry due to state-based requirements and training needing to be tailored to meet localised/ jurisdictional needs. Industry supports streamlined training and the recognition of prior learning. However, the sector has a respectful understanding that theoretical knowledge does not always equate to practical knowledge and safety should not be compromised due to cost and length of time to deliver training.

Despite the differences in regulatory requirements, entry-level skill requirements are largely the same across different jurisdictions and networks, with slight changes to a small proportion of content based on local 'Rule Book' requirements. However, different RIMs/operators may not recognise training delivered by some RTOs due to a lack of confidence in the consistency and quality of training provision. Industry stakeholders agree that efficiency in training delivery is being hampered by the need for different training and assessment resources for each jurisdiction/ network, as well as by a shortage of trainers and assessors.

The National Transport Commission's (NTC) blueprint[25] for nationally recognised entry-level rail skills training aims to establish mutual recognition to support greater workforce mobility and interoperability across networks. The initiative has the potential to reduce training time and costs, and boost productivity for the rail industry.

As a member of the project reference group, ISA has supported the progress of the Blueprint through engagement with other key stakeholders, including Rail Infrastructure Managers (RIM) and rail operators, contractors, Registered Training Organisations (RTOs) and training regulators, government agencies and industry regulators.

In 2024, ISA as the JSC for rail commenced Phase 1 of the Blueprint that focused on:

- establishing overarching principles and a framework for mutual recognition that will guide future reform activities, with both non-regulatory and regulatory pathways available
- bringing key stakeholders together to take lead the reform, while sharing knowledge to identify and lift practices across the sector
- setting an industry-driven benchmark for validation and moderation, giving industry greater confidence in the consistency of outcomes delivered by the education sector
- providing opportunities for all people to participate in rail by enabling greater consistency across training and assessment practices and setting a pathway towards a national curriculum.

Phase 1 identified nine Units of Competency considered foundational for key roles across the industry. Mutual recognition of these entry-level skills will provide greater workforce mobility, interoperability across networks, and productivity for the sector as a whole. In consultation with industry advisory groups and key stakeholders, validation and prioritisation of the units will be completed.

The phase 2 activity will include the development of rail skills curriculum to provide publicly accessible entry-level training programs. This work will be guided by a governance group comprising representatives from industry, education, regulators and government.

Outputs from the Blueprint activity will be published in the Rail Mutual Recognition Companion Volume.

Some RTOs are not meeting industry expectations for training quality

The development of national rail skills curriculum to support entry-level training will harmonise training programs and help to address industry concerns about inconsistent approaches to training and assessment.[26]

Actions Underway:

- Mutual Recognition Phase 1

Future Research and Consultation:

- Mutual Recognition Phase 2

[23] Department of Industry, Science and Resources. National rail procurement and manufacturing strategy

[24] Queensland Rail. (2023). Signalling and operational systems competence management

[25] National Transport Commission. (2023). National blueprint for the mutual recognition of entry-level rail training courses

[26] Australian Railway Association. (2024). Harmonisation of Rail standards

MEGATREND

Emerging technologies are creating a need for new skills across all transport industries

D. New skills needed to address technical changes

The adoption of digital technology will bring significant technical change to the rail industry.[27] Forthcoming changes promise to deliver many benefits for passengers, freight users, the industry, and society more broadly. For example, digital signalling and train control solutions can introduce:

- increased capacity and better performance
- enhanced safety
- asset and system optimisation
- improved passenger experience
- accelerated economic growth
- improved environmental outcomes and increased sustainability.

However, the industry has reported shortages in the technical skills needed to operate and maintain digital, automated and new technologies for rail signalling, communications, asset management, track maintenance, high speed, autonomous and remotely operated rail. ISA's 2025 survey responses indicate the rail industry is in varying stages of adopting digital skills and will require strategic investment and approaches to develop the skills needed.

ISA is continuing to work with industry and RTOs to understand capacity and capability gaps and inform a range of pilot projects to improve access to quality rail training and assessment.

Industry stakeholders have suggested specific areas for new Training Package content including or related to:

- high level specialist unit/s covering infrastructure diagnostic vehicles
- remote heavy haul to rail
- autonomous train operations
- rail specialisation unit for transition of qualified engineers from other fields
- Skill Sets to cover different Train Driver specialisations (e.g. freight, urban electric, country passenger, steam locomotive, heritage motive power)
- battery electric locomotives being introduced for heavy haul and freight.

[27] Rail Express. (2024). NTC forum supports digital technology rollout in rail industry

DRAFT FOR CONSULTATION

Digital transformation in Rail requires a shift in workforce skills

For the Australian Rail industry to realise the potential benefits of digitisation, the workforce must have the skills needed to support a smooth transition to new technologies.[28] Workers need digital skills to adapt to new technologies and related work roles. According to the National Transport Commission, by 2027 digital technologies are expected to impact nearly 40% of rail workers.[29] Already, most jobs in the rail sector have been required to engage with the introduction of digital technologies.

Increasing digital skills requirements may impact the knowledge levels required for some occupations, meaning that the related qualifications may need to be aligned to higher levels of the Australian Qualification Framework (AQF). Analysis of the relevant Training Package qualifications will consider the impact on AQF alignment.

Proposed Actions:
- Digital skills
- Autonomous Train Operations

Actions Underway:
- Rail Digital Skills Analysis

Future Research and Consultation:
- Autonomous Train Operations Stage 2

BY 2027, DIGITAL TECH WILL IMPACT NEARLY

40%

OF RAIL WORKERS JOB ROLES

[28] Australasian Railway Association Building-Australian-Rail-Skills-for-the-Future.pdf

[29] National Transport Commission. Meeting future rail skills demand

MEGATREND

Training barriers are restricting workforce supply across all transport industries

E. Rail training capacity falls short of industry demands

The Rail industry needs better training facilities, more qualified trainers, and greater RTO availability to meet workforce demands and address skilling challenges.

The Rail industry needs better training facilities, flexible delivery models, and cost-effective resources to meet workforce demands

Stakeholders report that insufficient training facilities, technology and learning resources are limiting the industry's ability to address skilling challenges. More flexible training delivery models and stronger partnerships between industry and RTOs are needed to meet industry needs.

ISA's 2025 survey indicated that the cost of training and access to rollingstock and simulators impacts the delivery of training. Access to experienced trainers is also challenging and results in poor training outcomes and risking the safety of workers. Additionally, respondents indicated that qualifications need to be reviewed to accommodate new technologies such as job roles that support autonomous networks.

Additionally, thin markets for some Rail qualifications mean that the development of quality training and assessment resources is not commercially viable. Support for the development of industry prescribed resources could make the delivery of quality training more achievable for RTOs.

Training and pathways (including school-based training and entry level and technical Skill Sets) need to better support industry's ability to respond to workforce capacity challenges and skills shortages across construction, operation and maintenance of rail infrastructure.

There is a shortage of qualified trainers

Access to workforce training is restricted by a critical shortage of qualified Rail industry trainers, assessors, and subject matter experts. This shortage to support training and assessment reflects broader shortages of 'Vocational Education Teachers' consistently reported across all States and Territories over the past three years (**Table 4**). Experienced rail workers are deterred from becoming trainers or assessors due to negative perceptions of the role and poor remuneration. The requirement to attain a Certificate IV in Training and Assessment also deters experienced workers from taking on trainer and assessor roles.

Table 4: Vocational Education Teacher Shortages by State/Territory

State/Territory	2021	2022	2023	2024
Australian Capital Territory	No Shortage	Shortage	Shortage	Shortage
New South Wales	No Shortage	Shortage	Shortage	Shortage
Northern Territory	Shortage	Shortage	Shortage	Shortage
Queensland	No Shortage	Shortage	Shortage	Shortage
South Australia	No Shortage	Shortage	Shortage	Shortage
Tasmania	No Shortage	Shortage	Shortage	Shortage
Victoria	No Shortage	Shortage	Shortage	Shortage
Western Australia	No Shortage	Shortage	Shortage	Shortage

Source: Occupational Shortage List (14 February 2025)

In July 2025, revised Standards for Registered Training Organisations (RTOs)[30] will introduce a provision for the use of industry experts for training under direction of an accredited trainer or assessor. The flexibility that this change provides may enable the Rail industry to use industry experts for some training delivery, providing a mechanism for transferring knowledge from experienced workers who are nearing retirement and potentially alleviate pressure from the current lack of VET trainers and assessors. The revised Standards present an opportunity to improve access to industry-relevant training by leveraging industry expertise.

This is an outcome that is appealing to industry stakeholders who have suggested that more flexibility in training delivery models and stronger partnerships between industry and RTOs would enable the VET system to better respond to industry needs.

Limited RTO availability is restricting access to Rail qualifications

There are relatively few RTOs delivering rail qualifications from the TLI Transport and Logistics Training Package. For 12 of the 21 rail qualifications in the Training Package, there are fewer than six RTOs registered to deliver training. Although number increased marginally from the previous year, (2023) only five of the qualifications have more than 10 RTOs with scope to deliver the qualification.[31] This concentration means that not only are most rail qualifications offered by a limited number of RTOs, but enrolments are also heavily skewed toward just a few qualifications, with the Certificate II in Rail Infrastructure alone making up 69% of all rail enrolments in 2023.[32]

The vast majority of VET in the rail sector is delivered by enterprise or private RTOs which means training almost always occurs whilst in employment. Industry stakeholders report that learners can be disadvantaged when providers do not recognise training delivered by others in a competitive market

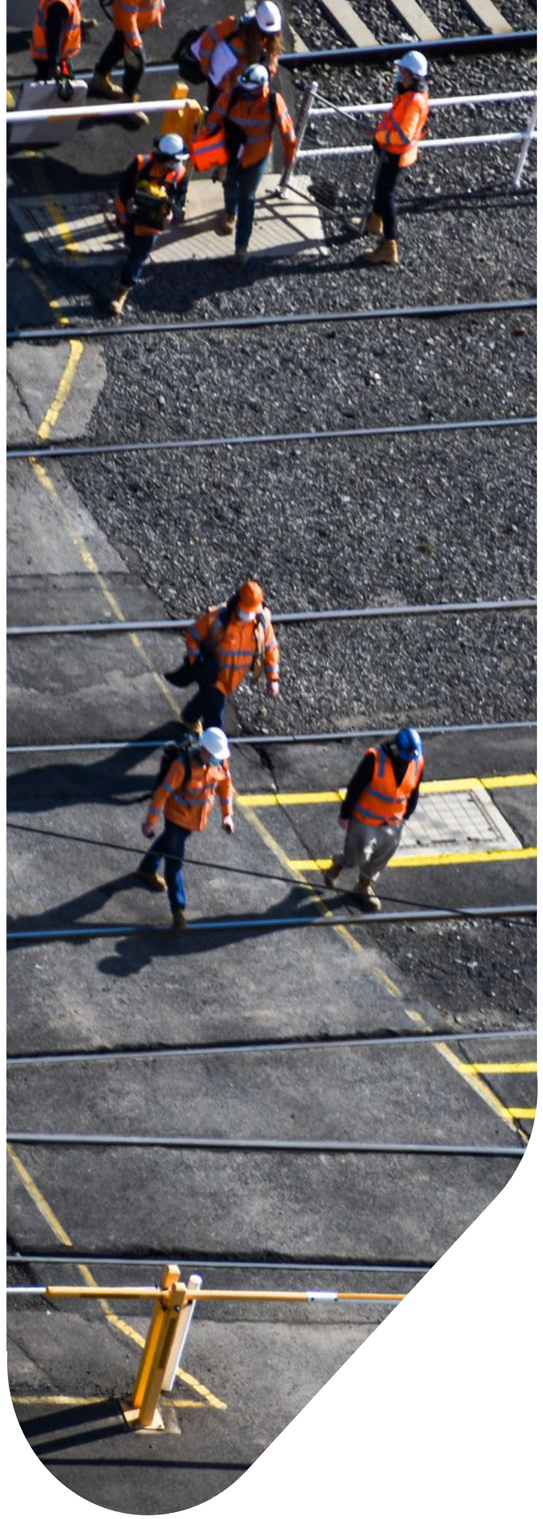
Work underway to establish nationally recognised entry-level rail skills training is expected to increase the capacity of RTOs to deliver training prior to employment for new workforce entrants. Proactive leadership is required from Commonwealth and State Governments to address the lack of funding support currently available for the Rail industry workforce.

Actions Underway:

- VET Workforce Project
- Qualification Reform - Purpose Categorisation

Future Research and Consultation:

- Addressing Rail Industry Training Shortfalls



[30] Department of Employment and Workplace Relations. Revisions to the Standards for Registered Training Organisations

[31] training.gov.au. (October 2024)

[32] National Centre for Vocational Education Research. (2024). VOCSTATS: Total VET activity

MEGATREND

The demand for cybersecurity expertise is growing in both the Rail and Transport & Logistics industries

F. Skills gaps for cybersecurity threats

The rail sector is facing an emerging but significant challenge in cybersecurity. The Australian Cyber Security Centre specifically identifies rail safety and signalling equipment as vulnerable to cybersecurity threats.[33] As new technologies and innovations are being introduced at a rapid pace, the impact and risk of cyber-attacks is increasing, and organisations are struggling to detect, report and resolve these risks.

Cybersecurity is a growing challenge for the Rail industry

The strategic significance of rail infrastructure as highlighted by the Security of Critical Infrastructure Act 2018 can make the industry a target for cyber-attacks and security threats. When systems are compromised, the resulting disruption can have severe repercussions on infrastructure, operating systems and safety.

The industry needs to manage increasing cybersecurity risks and implement effective measures for management, monitoring, and compliance. The challenge for rail industry organisations is to ensure they have the workforce capability to detect, report, and resolve cybersecurity risks.[34]

ISA's 2025 survey validated that cybersecurity is a matter of significant concern and the industry is looking at initiatives and investments to minimise the impact of cyber-attacks.

Investment is needed in cybersecurity skills

The Rail sector needs to invest in skills to understand and protect against cybersecurity threats.

An opportunity for collaboration between TAFEcyber, a consortium of TAFE colleges across Australia, JSCs and industry may enable innovation to train and deliver skills to mitigate risk from cyber-attacks.

CYBERSECURITY THREATS PUT RAIL

SAFETY AND SIGNALLING SYSTEMS AT RISK

[33] Australian Cyber Security Centre. (2023). Annual cyber threat report 2023–2024. Australian Government

[34] Australian Cyber Security Centre. (2023). Annual cyber threat report 2023–2024. Australian Government

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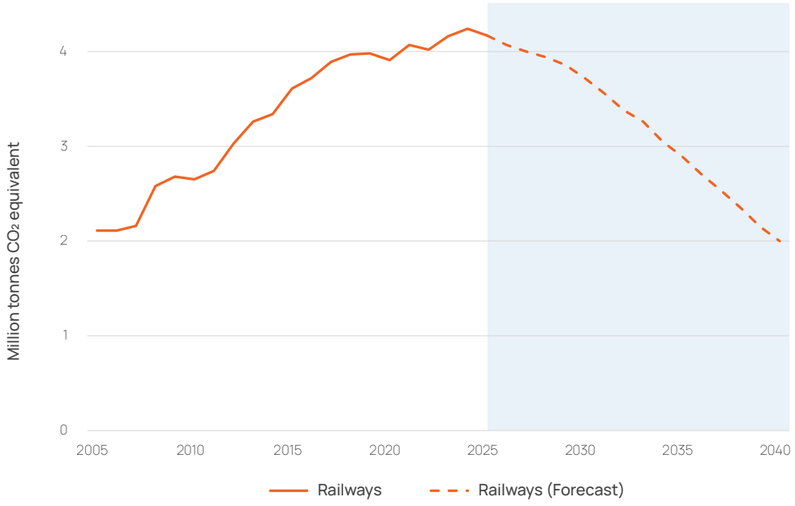
MEGATREND

Decarbonisation is driving demand for new skills across all transport industries

G. New skills demands rise as rail shifts to clean energy

The Australian Government is investing heavily in clean energy initiatives, with a focus on decarbonisation and the development of new industries.[35] Business leaders recognise the importance of achieving net zero carbon emissions to remain competitive, and many believe that sustainable transformation is driving a competitive edge for companies. In **Figure 6**, we can see that although railway emissions nearly doubled from about 2.6 million tonnes of CO_2-equivalent in 2005 to around 4.2 million tonnes in the mid-2020s, projections indicate a subsequent decline, with emissions falling back to roughly 2005 levels by 2040.

Figure 6: CO_2 equivalent emissions in rail transport



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

CO2 EMMISIONS
are predicted to decline

Decarbonising Rail will reshape industry skills and jobs

Rail transport in Australia is expected to decarbonise gradually, with electricity's share projected to double by 2050, alongside increased biofuel use.[36] Battery electric trains and hydrogen fuel cells are emerging options to replace the existing diesel fleet in coming decades.[37]

[35] Australian Government. Budget 2024-2025

[36] CSIRO (November 2023). Pathways to net zero emissions

[37] Australian Railway Association. (2024). The critical path to decarbonise Australia's rail rollingstock

Aurizon, Australia's largest rail freight provider, is undertaking a world-first pilot to build a zero-emissions capable freight locomotive using battery technology.[38] Additionally, in March 2024, Aurizon secured a $9.4 million grant from the Australian Renewable Energy Agency (ARENA) to develop, test, and trial a battery-electric tender to be used in conjunction with a modified locomotive.[39]

However, there is uncertainty about the workforce skills needed to support the transition to decarbonisation in the Rail industry. Initial work in the heavy haul and freight rail sectors indicates that there will be a need for more electrical skills, as well as skills associated with battery electric solutions.[40]

ISA's 2025 survey indicated that decarbonisation is not an immediate issue for the rail industry, however it acknowledges new and changing skills will be led by the solutions of rail operators and RIMs who are early adopters of new technology.

Clean energy investment has the potential to boost regional economies

Government investment in clean energy initiatives, such as regional hydrogen hubs and electric vehicle charging infrastructure, is expected to drive economic growth and job creation in regional areas.[41] These investments will support Australia's transition to a low-carbon economy. However, as rail employers in regional areas already face challenges recruiting skilled workers and tradespeople, regionally based workforce skilling solutions will be required to ensure there is an adequate skills pipeline for both new and established regional employers.

Future Research and Consultation:

- Tracking Emerging Technology Adoption in the Rail Industry

[38] Aurizon. (2023). Work starts on first zero-emissions capable freight locomotive built in Australia

[39] Aurizon. (2024). Aurizon secures funding to develop next-generation freight trains using renewable energy

[40] Australasian Railway Association. (2023). The rail workforce: An analytical overview

[41] Australian Trade and Investment Commission. (2025). Australia accelerates investment in net zero transformation

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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 5: Proposed actions to Address Challenges and Drivers

Digital skills		
Labour Market Dynamics	**Proposed Action/Strategy**	**Key stakeholders**

Key challenge/driver
D. New skills needed to address technical changes
 	
Symptom:
Skills Shortage
	Activity:
	Analyse and review DigComp for use in Australian VET sector. Develop tools for use and undertake a review of occupations in using tools.
	
	Components:
	• Analyse and review DigComp for use in Australian VET sector
	  • 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
	  • 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.
	
	Impact:
	• 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
	
	Timing:
	2025 - 2027
		• Industry leaders
		• Industry peaks
		• JSCs
		• Australian Rail Association
		• National Transport Commission
		• Australasian Railway Association

Autonomous Train Operations		
Labour Market Dynamics	**Proposed Action/Strategy**	**Key stakeholders**

Issues
D. New skills needed to address technical changes
 	
Symptom
Skills Shortages
	Activity:
	• To deliver Stage 1, identify and benchmark autonomous train operations practices and existing skills gaps to determine how vocational training products can be modernised to encompass current practices to address emerging autonomous skills gaps.
	• Stage 1 of the project will develop a report that will provide recommendations for the development of training products to support autonomous train operations. This report will inform Stage 2 of the project to review of existing and/or develop new training products within the TLI package.
	
	Components:
	• Consider the development of a dedicated qualification within the TLI training package focused on emerging occupations related to Autonomous Train Operations (e.g., Certificate IV in Autonomous Rail Operations).
	• Expansion of existing qualifications by introducing an "Autonomous Train Operations" specialisation (stream) within existing qualifications such as:
	  • Certificate III in Rail Customer Service
	  • Certificate III in Rail infrastructure
	  • Certificate IV in Network Control
	
	• Creation of new units of competency to cover skills and knowledge gaps, including but not limited to:
	  • Autonomous Train Fault Diagnosis and Rectification
	  • AI and Data Analytics for Rail Network Efficiency
	  • Human-AI Collaboration in Rail Traffic Control
	  • Emergency Response Coordination for Autonomous Train Systems
	  • Passenger Interaction and Support in Automated Train Environments.
	• Creation of Skill Sets to support upskilling/reskilling of existing workers.
	• Integration with current regulatory and compliance frameworks to maintain alignment with safety and operational standards set by Rail Safety National Law (RSNL) and other governing legislation.
	
	Impact:
	• Provide an initial skills gap analysis to identify new and existing units of competency that are relevant to support this new emerging technology of autonomous operations within a rail environment.
	
	Timing:
	June 2025 – December 2025
		• Union
		• Peak body
		• Rail Infrastructure Managers (RIMs) and Rail Operators (private and public)
		• Rail Contractors
		• Registered Training Organisations (RTOs)
		• VET Regulators

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.

VET Workforce Project

Labour Market Dynamics	Project Details	Key Stakeholders
Challenge/Driver E. Rail training capacity falls short of industry demands **Symptom** Occupational shortage	**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. 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. 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. **Impact:** ISA will deliver a workforce study comprising the following components: • Understanding the VET Workforce • VET workforce roles and needs • VET workforce pathways and pipelines • Future and emerging VET Workforce Issues For further details visit the ISA Website.	• 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

Mutual Recognition Phase 1

Labour Market Dynamics	Project Details	Key Stakeholders
Challenge/Driver C. Lack of rail interoperability hampers labour mobility **Symptom:** Occupational and Skills Shortages	**Summary:** To support the interoperability and labour mobility of workers implement the Mutual Recognition Blueprint from the NTC. **Impact:** Support greater mobility of workers and greater industry confidence in the education sector. For further details visit the ISA Website.	• Rail SWPC • RIMS • Rail Operators • Rail Contractors • ARA • NTC • RTBU • AMWU • STAs • RTOs • Rail Industry Safety and Standards Board (RISSB) Office of the National Rail Safety Regulator (ONRSR) • VET Regulators

Improving Rail Career Information

Labour Market Dynamics	Project Details	Key Stakeholders
Challenge/Driver B. Rail organisations struggle to attract young and diverse talent **Symptom** Under attractive occupation	**Summary:** To address attraction and retention challenges in the Rail industry, this initiative develops a comprehensive repository of career information on specific occupations. **Impact:** • 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. For further details visit the ISA Website.	• Schools • National Careers Institute • Training Providers • Employers • State Industry Training Advisory Bodies • State Training Authorities • First Nations groups • Disability advocacy groups • Employment service providers • Peak bodies • Unions

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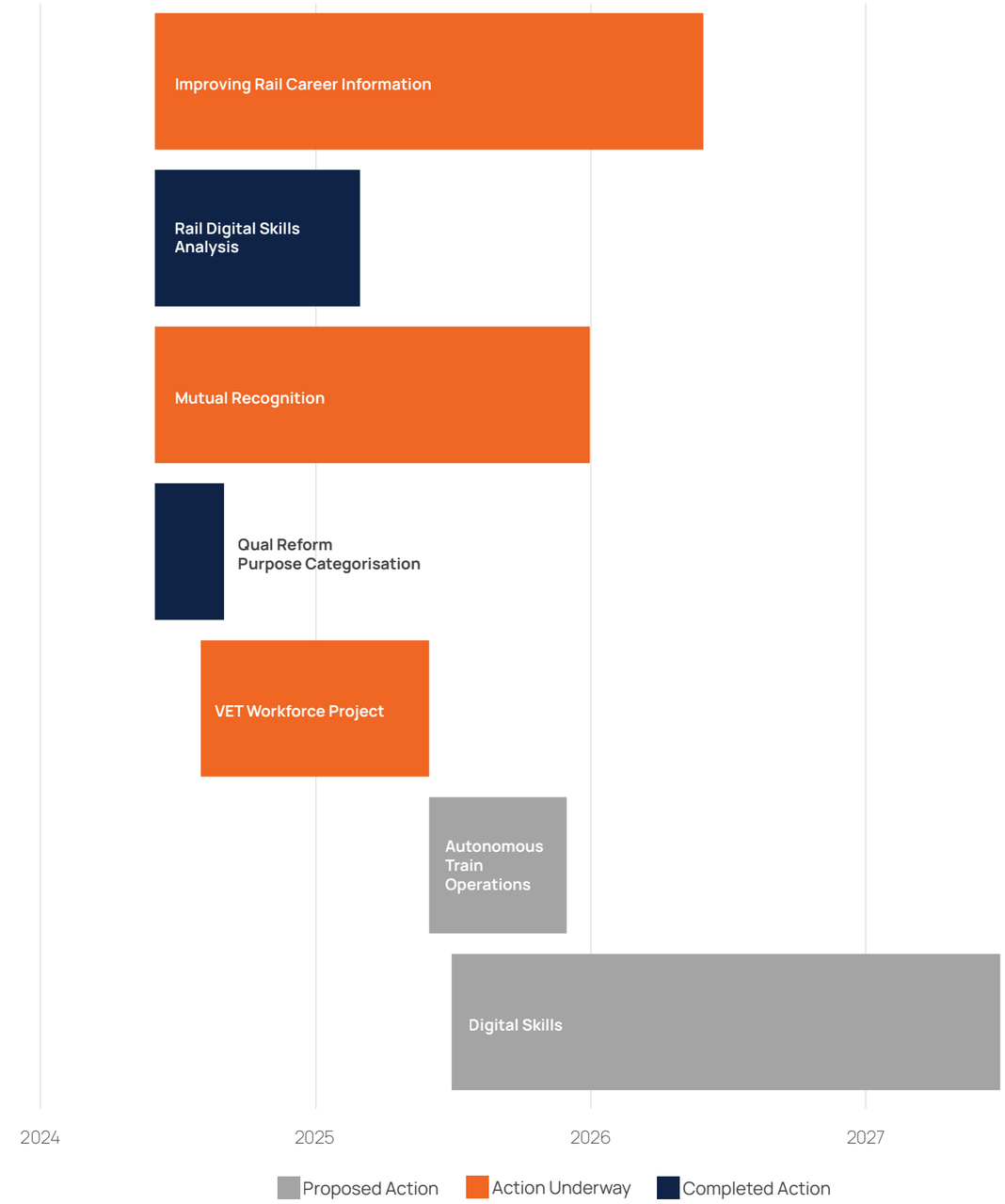
Qualification Reform - Purpose Categorisation

Labour Market Dynamics	Project Details	Key Stakeholders
Challenge/Driver E. Rail training capacity falls short of industry demands **Symptom** Skills shortage	**Summary:** This project explored opportunities and implications for the industry arising from the Qualification Reform agenda. ISA developed a demonstration qualification that would cover employers' minimum requirements for a person to commence work in the following roles: • Forklift driver (T&L) • Baggage Handler (Aviation) • Track Worker (Rail) **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. For further details visit the ISA Website.	• 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)

Rail Digital Skills Analysis

Labour Market Dynamics	Project Details	Key Stakeholders
Challenge/Driver D. New skills needed to address technical changes **Symptom** Skills shortage	**Summary:** Using a digital framework to analyse digital skills required for selected Rail occupations. **Impact:** Recommendations from the project will assist in providing digital skill requirements for Rail qualifications For further details visit the ISA Website.	• Rail, Tram and Bus Union (RTBU) • ONRSR • Rail Industry Safety Standards Board (RISSB) • Rail Enterprises • Industry Associations • Various RTOs delivering existing qualifications • Australian Railway Association

Timeline of Activities



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 2026 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 2025:

A. Industry faces critical occupational and skills shortages

Future Rail Skills

Collaboration between the ARA, NTC, RTBU and ISA to identify and prioritise responses for future rail skills requirements (e.g. skill and knowledge requirements for new locomotive fuel types). Also, an analysis of long-term FTE demand for critical operators, differentiating between roles in the passenger and freight sectors of the industry.

Additional research and consultation will be conducted to consider how future leadership capacity and capability might be planned and developed.

Collaboration between JSCs that cover rail occupations

Establish a regular dialogue between relevant JSCs (T&L, manufacturing, electrical and construction) and key stakeholder groups to ensure there is a whole of sector examination of rail workforce needs, and implementation of collaborative responses where required.

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.

International Benchmarks

In consultation with industry stakeholders, we will investigate and conduct a comparison of rail workforce profiles with international benchmarks.

B. Rail organisations struggle to attract young and diverse talent

Workforce attraction and career transition

Research on promotion of professional opportunities and career pathways available in rail using Industry Skills Australia's Rail Career Information[42] and the ARA Work in Rail website[43] to link employers with jobseekers.

C. Lack of rail interoperability hampers labour mobility

Mutual Recognition Phase 2

Phase 1 of this body of work will inform Phase 2 outputs of the project. Consultation throughout the project will consider both Phase 1 outputs, as well as information required to plan Phase 2.

D. New skills needed to address technical changes

Autonomous Train Operations Stage 2

Exploring the feasibility of Autonomous Train Operations stage 2.

E. Rail training capacity falls short of industry demands

Addressing Rail Industry Training Shortfalls

Consultation and engagement with key rail stakeholders to identify training shortfalls to meet industry demands.

G. New skills demands rise as rail shifts to clean energy

Tracking Emerging Technology Adoption in the Rail Industry

Monitoring emerging tech adoption from rail providers.

[42] Industry Skills Australia. (2024). Rail career information. Retrieved from https://www.industryskillsaustralia.org.au/rail-career-information

[43] ARA. Work in Rail. Retrieved from https://workinrail.net.au/ (accessed March 2025)

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Industry Skills Australia

www.industryskillsaustralia.org.au