



MARITIME INDUSTRY

KEY CHALLENGES AND DRIVERS SUMMARY PAPER 2025



About Industry Skills Australia

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 Distribution and Logistics, 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,
- developing priority training products.

Purpose of the Key Challenges and Drivers Summary Paper

The purpose of this paper is to seek feedback on a summary of the key industry and skills-related trends identified for the Maritime Industry.

The main themes in this paper are drawn from extensive industry consultation conducted throughout the year including input from our Industry Roundtables, the Supply Chain Leaders' Summit and insights from our Strategic Workforce Planning Committee.

Feedback received on this paper will play a critical role in shaping the 2025 Maritime Industry Workforce Plan, ensuring that contemporary drivers and challenges within Australia's Maritime industry are correctly identified and developing forward thinking actions to address those challenges.

While every care has gone into ensuring the accuracy of the information contained in this Summary Paper, it is intended that this material will be validated by industry through our consultation and feedback activities over the coming months.

How to provide feedback

Stakeholders are invited to submit their comments on the key challenges and drivers outlined in this paper via a [survey](#) by close of business on **Monday 3 March 2025**.

The information provided in this paper is deliberately brief. The purpose of this paper is to validate and confirm consultation and research findings to date.

Additional responses and requests for further information should be emailed to:

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Key Challenges and Drivers

A. Skilled workforce shortages pose a major challenge for Australia's Maritime industry

The Australian Maritime industry is experiencing unprecedented demand for skilled professionals, with a significant gap between the demand for seafarers and the current workforce supply.

- **Ongoing shortages of Engineers, Masters, Officers, and Deck Hands are impacting the industry**
 - The industry faces ongoing shortages of qualified personnel, including Deck, Masters, Officers, Engineers, and Electro-Technical Officers, compounded by challenges in attracting and retaining workers.
- **Emerging green energy sectors and expanding Maritime industries will increase demand for skilled workers**
 - Stakeholders suggest that workforce shortages are expected to extend to emerging sectors like clean energy transport and offshore wind farms, with differing requirements for construction, operations, and maintenance phases.
 - Significant growth is anticipated in offshore oil and gas, coastal trading vessels, trans-shipment operations, defence support, and shipbuilding, further increasing the demand for Maritime workers.
- **The industry is grappling with an aging workforce and high turnover rates**
 - The industry is challenged by an aging workforce and difficulties in retaining workers, with many seafarers leaving for alternative careers or higher-paid jobs in other sectors.
- **Attracting women and under-represented groups is a challenge for the industry**
 - Stakeholders report difficulties in attracting women and under-represented groups to the Maritime industry. Addressing these challenges is crucial for fostering a more diverse and inclusive workforce to support labour force supply.
- **The Strategic Fleet will require more qualified seafarers to meet operational demands**
 - The Strategic Fleet Taskforce [advocates](#) for creating a fleet of over 12 vessels, which will need qualified seafarers. Without addressing the workforce gap, staffing the proposed fleet will be challenging.

B. Maritime training faces barriers from high costs, limited course availability, and trainer shortages

The costs associated with training and certification can be a significant barrier for many aspiring seafarers due to the stringent requirements set by Australian Maritime Safety Authority (AMSA) and the need to comply with International Maritime Organisation (IMO) standards.

- **Maritime training is hindered by the need for substantial investments, a lack of trainers, and regulatory pressures**
 - RTOs need significant investment to develop and maintain specialised training programs with stringent regulatory requirements.
 - The Maritime industry faces a shortage of trainers and assessors which creates a barrier in creating a skills pipeline.
- **Government funding supports VET enrolments, but course availability is limited**
 - Government funding supports VET enrolments, but the availability of Maritime courses through Fee-Free TAFE and VET traineeships is limited.

- While there is a strong relationship between the achievement of AMSA certification and employment outcomes, there is an ongoing need for stakeholders, including governments and industry, to explore fair and equitable funding models that make training viable for training providers and cost effective for seafarers.
- **RTOs struggle to maintain cost-effective courses due to low enrolments**
 - Low enrolment numbers affect RTOs' ability to deliver cost-effective courses, leading to limited training providers, higher costs, and fewer innovative delivery models.
- **The quality of graduate outcomes in the Near Coastal sector is a concern**
 - Stakeholders have raised concerns about the quality of graduate outcomes who complete qualifications which align with low complexity tickets to work in the Near Coastal sector.

C. The limited availability of training berths is a major barrier to completing qualifying sea time

This challenge arises from stringent sea service requirements set by AMSA and the needs of both near coastal sea service and international certifications.

- **The lack of training berths limits opportunities to meet certification requirements**
 - The Strategic Fleet Taskforce identified the lack of access to available berths on vessels as a major challenge for the industry and proposed measures to reduce these barriers, such as mandated training berths and cadetship programs.
 - Stakeholders in the Domestic Commercial Vehicle (DCV) sector have also reported difficulties accessing berths to complete sea time requirements.
- **The decline in Australian-flagged vessels reduces sea time opportunities for new entrants**
 - Fewer Australian flagged vessels reduce training berths, impacting seafarers' ability to complete sea time and achieve AMSA certification.
- **Lack of coordination limits effective access to training berths**
 - Lack of coordination across industry and training providers results in ineffective access and utilisation of training berths to complete sea time.

D. The industry faces complex challenges in adapting to decarbonisation and new technologies

The Maritime industry is facing complex challenges as it navigates decarbonisation efforts and new technologies, driven by evolving international regulations, emerging fuel and automation technologies, and the urgent need to reskill and upskill the workforce to meet future demands.

- **New International Maritime Organisation (IMO) regulations will drive the adoption of cleaner fuels and technologies**
 - The IMO has adopted measures to urgently reduce greenhouse gas emissions from international shipping, promoting cleaner fuels and technologies that significantly impact Maritime industry.
 - New technical and economic measures, effective from 2027, will accelerate the adoption of low and zero-carbon fuels and technologies.
- **Preparing domestic seafarers for decarbonisation is complex due to evolving technologies and skills demands**
 - Decarbonising the DCV fleet is particularly challenging due to uncertainty around the adoption of new technologies. This presents challenges in assessing the skills needed for the future.

- The Australian government's plan [Maritime Emissions Reduction National Action Plan \(MERNAP\)](#) also acknowledges that training seafarers for a cleaner future is a challenge that needs to be addressed.
- **Growing automation and digitalisation in Maritime operations demands new competencies**
 - Maritime operations are expected to become more automated and digitalised in the near future, creating demand for a workforce proficient in these skills.
 - Maritime stakeholders and the ISA's Industry Advisory Group (IAG) have highlighted the National Skills System's role in supporting workforce development, including the need for trainers and educators to have skills and currency in the use of new and emerging technologies.
 - IAG has also identified the need for a skills transition to support the adoption of and implementation of new technologies.
- **The shift to new technologies and alternative fuels demands updated training and strong safety measures**
 - Certification and training programs must be updated to maintain safety standards and ensure regulatory compliance for new technologies, battery electric systems, and alternative fuels such as hydrogen, ammonia, and methanol.
 - Seafarers will need to be reskilled and upskilled in the safety requirements, operation, and maintenance of new systems, including autonomous technologies and alternative fuels, while also being trained in safety measures to protect the community, passengers, and marine life.



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