



# DEFENCE INDUSTRY TRAINING CAPABILITY STATEMENT



GOVERNMENT OF  
WESTERN AUSTRALIA



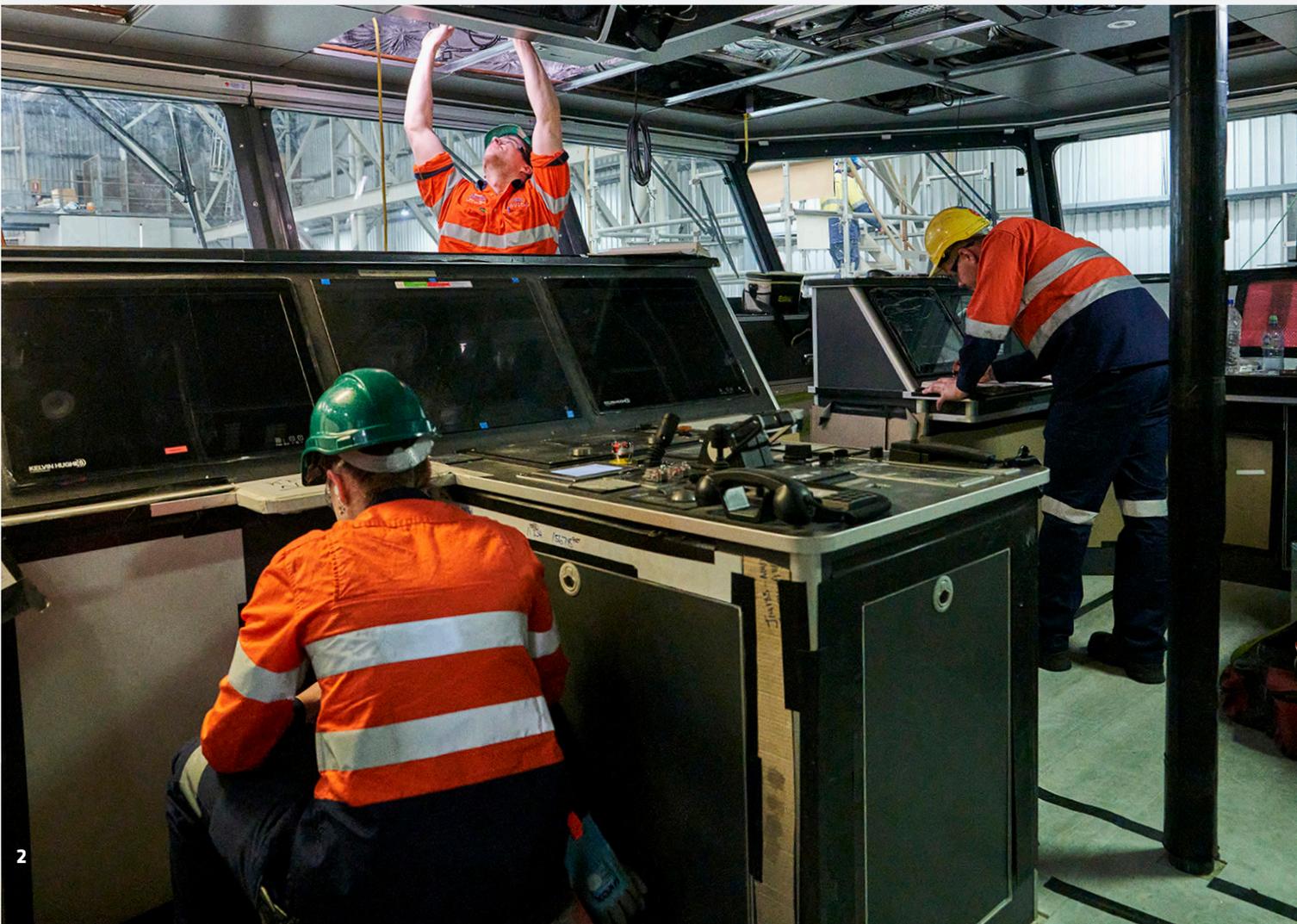
**South  
Metropolitan**

# South Metropolitan TAFE

Western Australia's defence industry is world leading. South Metropolitan TAFE (SM TAFE) is working with industry to deliver a pipeline of skilled workers to meet the future needs of the industry and prepare for major projects in WA.

Defence industry training can be customised to employers' needs or conducted within the framework of SM TAFE's existing nationally accredited courses and utilising world-class facilities. Pathway programs are in place to bring together schools, TAFE, higher education and the defence sector to attract, train, retain and re-train sector personnel.

SM TAFE training staff consult extensively with key industry stakeholders to ensure a whole-of-workforce development approach is adopted to deliver the right skills at the right time.



## DEFENCE INDUSTRY TRAINING



APPLIED ENGINEERING



AUTOMATION



AVIATION



COMPOSITES TRADE



CYBER SECURITY



DEFENCE INDUSTRY TRADES  
(INCLUDING FABRICATION AND WELDING)



DRONE TECHNOLOGY



INDUSTRY 4.0 (see over page)



LOGISTICS AND WAREHOUSING



MARITIME STUDIES



REFRIGERATION AND AIR  
CONDITIONING



SHIPBUILDING



SUBMARINE MAINTENANCE



## SM TAFE Naval Base campus

The campus opened in 2019 to provide students and apprentices with hands-on experience in a real-life industry setting.

The Naval Base campus houses delivery for heavy fabrication, marine fabrication, welding and composite apprenticeship training, with a large focus on Western Australia's growing shipbuilding industry and the anticipated growth in student numbers.

The workshop area at our Naval Base campus has been designed specifically with training in mind. It has surface protection which reflects maximum light for student and trainer safety, full height segregation to allow improved safety for hot works, and improved vehicle access to improve safety of staff and students when moving equipment or receiving stores deliveries.

The campus is equipped with state-of-the-art fabrication and welding equipment. There are 45 welding bays that have been constructed and equipped for multi-use, allowing MIG, TIG, Stick and Flux-cored Arc Welding, which caters for ferrous and non-ferrous material.

The welding bay layout enables students to select the correct welding process for the job, encouraging analysis and innovation for the latter stages of an apprenticeship. It also allows trainers to provide a greater level of supervision to multiple groups, as students can be restricted to an area best aligned to their training requirements while still being engaged with the trainer. **Demonstration welding bays and augmented reality simulators allow lecturers to safely demonstrate welding techniques to students. Our new computer numerical control machines are also an emerging technology of increasing importance in manufacturing.**

# Technology, collaboration, flexibility

## Naval Shipbuilding College (NSC)

The co-location of the NSC within the Naval Base Campus is seen as being mutually beneficial for both SM TAFE and the NSC, assisting to enhance the partnership to meet the needs of the shipbuilding and defence industries.

## Western Australian Defence Industry Workforce Office

We work closely with the Western Australian Defence Industry Workforce Office. The Office leads the development of the WA Defence Workforce Development Plan, in close collaboration with Defence West, education and training providers, industry and the Department of Training and Workforce Development. The plan focuses on the State's industry strengths, aligned to the six capability domains outlined in the Australian Government's Defence Integrated Investment Program. It is also developing a state-based skills profile for naval shipbuilding to enable the sector to increase capacity and capability and to respond to emerging workforce requirements.



### Cyber security

SM TAFE recently launched its new Training Cyber Security Operations Centre enabling SM TAFE to be the first in the State to deliver a para-professional qualification in cyber security, tapping into the nationwide cyber security skills shortage. The centre will also be available for industry to hire to perform their own simulated scenarios, allowing investigations to test security posture in an office scale development environment and train staff on potentially hazardous IT scenarios in a safe controlled space.



### Automation

Together with Rio Tinto, one of the world's largest mining corporations, SM TAFE has launched Australia's first nationally accredited automation courses. A curriculum package has been developed with input from the mining and resources industry with the aim to support the industry's shift towards greater safety and productivity.



### Industry 4.0

The WA pilot of 22460VIC Diploma of Applied Technologies is currently being delivered. The course prepares individuals to undertake paraprofessional technical roles within the industry 4.0 manufacturing and/or engineering environments. SM TAFE, as part of a collaboration with the University of Western Australia, is seeking to identify where gaps may exist in national vocational education training products.



### Future Battery Industries

SM TAFE is collaborating with the Future Battery Industries Cooperative Research Centre at Curtin University. SM TAFE is exploring ways to foster innovations in training and analysing future workforce capability needs and skills requirements.

# Training delivery

Full-time and part-time, online and on site – SM TAFE’s workforce development and training options can be designed to meet the demands of its industry partners. Project-based learning and the use of state-of-the-art simulators is integrated into training that can also be customised to address specific skill sets within broader qualifications.

## SM TAFE SERVICE DELIVERY FRAMEWORK



### Training

- Training programs
- RPL
- Verification of competency
- Auspicing.



### Capability Development

- Twinning programs
- Embedded staff
- Corporate training.



### Consultancy

- Curriculum development
- Design of teaching materials
- Program evaluation.



### Co-design curriculum

- Curriculum co-designed with industry.

## Major partnerships

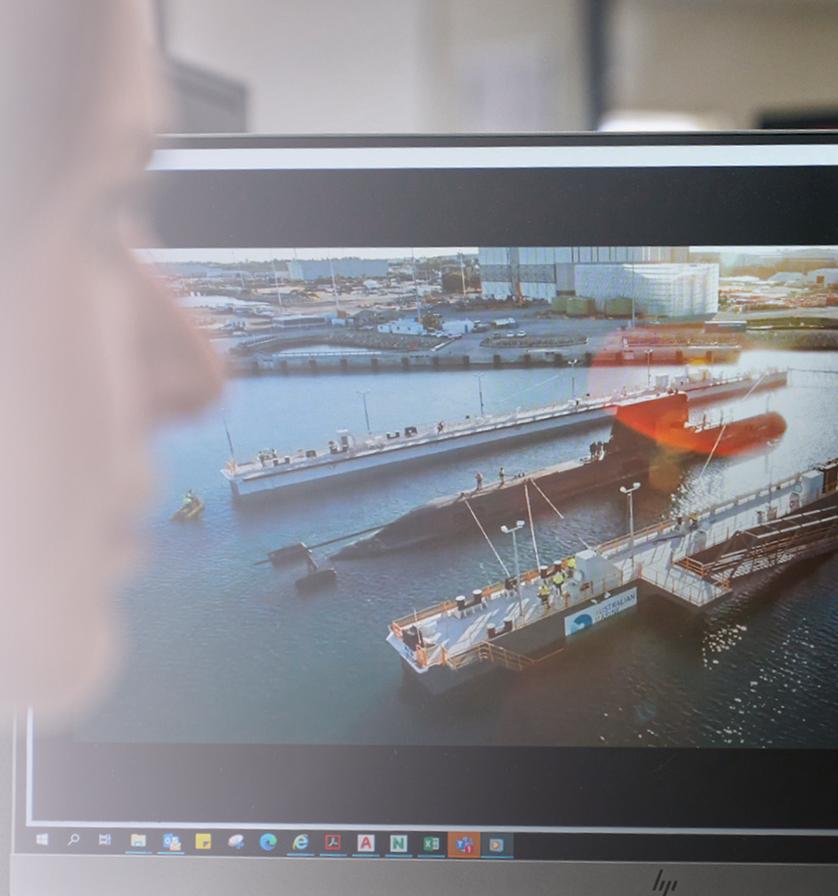
SM TAFE has a proven track record of collaborating with many major partners in the defence sector, among them Austal, Civmec and BAE Systems, as well as the following:

### ASC

Since 2002, SM TAFE has partnered with ASC to provide a dedicated team of training system specialists, curriculum development consultants and training technology experts at the Submarine Training and Systems Centre at HMAS Stirling on Garden Island. Working closely with ASC and the Royal Australian Navy (RAN), SM TAFE provides training and support services to assist in the training of submariners. SM TAFE has also trained more than 45 apprentices indentured to ASC over the past ten years.

### KBR

SM TAFE has a longstanding relationship with KBR to deliver a wide range of trade and post-trade training programs for the Navy. These include specialist Navy courses encompassing hull, propulsion and diesel maintenance, electrical systems, maritime operations and control systems.



# The future of defence: educational pathways and partnerships

SM TAFE offers numerous dedicated defence programs that create a seamless pathway between schools, TAFE, higher education and the defence sector. High school students in years 11 and 12 can begin their defence industry career journey via a range of study areas through SM TAFE's VET Delivered to Secondary Students (VETDSS) programs.

VETDSS defence career programs encompass:

- Shipbuilding
- Logistics and warehousing
- Submarine maintenance
- Defence trades
- Engineering
- Maritime studies.

## Defence Industry Pathways Program

SM TAFE and Defence (Australian Government) collaborated with the Defence industry in 2020 to create a 12-month vocational education and training Defence Industry Pathways Program.

The program provides graduates with a broad understanding of the maritime Defence industry and its career pathways with 25 maritime Defence employers hosting trainees. Since July 2021, 125 trainees have joined the program, 27 of these trainees have already graduated, with many of these graduates securing employment within

the industry.

## STEM pathways

SM TAFE has partnered with Cecil Andrews Senior High School in a program that brings together high schools and industry to promote career options that arise from the study of STEM subjects (science, technology, engineering and mathematics). SM TAFE manages delivery components within the P-TECH (Pathways in Technology) program, helping students transition from school to employment or further training and post-school qualifications. Work experience, industry mentoring, defence career advice and STEM subject study support are among the benefits enjoyed by participating students. Industry partners include Austal, Civmec, Thales, Deloitte and Datacom.

## Women in defence

The Women in the Defence Industry program is a scholarship program to encourage women to take up a career in the growing defence industry.

It provides the valuable foundation skills for gaining employment in the defence industry sector and is designed to meet the needs of women who are returning to work, or seeking a career change or an alternative pathway to further study in qualifications that relate to the defence industry. Participants gain relevant skills and knowledge targeting three sectors – supply chain management, trade, and technical occupations in the defence industry.





## Snapshot

South Metropolitan TAFE is one of Western Australia's most diverse training providers, with 12 campuses across the southern suburbs of the metropolitan area. SM TAFE delivers more than 300 qualifications to around 24,000 students. SM TAFE also works with industry and businesses across the State, providing tailored workforce solutions to support and enable business growth.



# DEFENCE INDUSTRY TRAINING



*We're working for  
Western Australia.*



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