The National Naval Shipbuilding Enterprise

The Commonwealth Government will invest:

- around $90 billion in new naval ships and submarines;
- more than $1 billion in modern shipyard infrastructure; and
- up to $62 million in workforce growth and skilling initiatives to enable the delivery of these platforms.

Four key enablers are required to implement the Government’s Naval Shipbuilding Plan:

- modern, innovative and secure naval shipbuilding infrastructure;
- workforce growth and development;
- a sustainable and cost-competitive Australian industrial base; and
- a national collaborative approach.

Naval Shipbuilding Projects
How will the 4th Industrial Revolution transform Naval Shipbuilding in Australia and what skills will be required?

Digital Shipyards are being built containing: robotic welding; automated systems; connected workers; and digital technology infrastructure.
Skills Required

Radical collaboration and highly technical skills across the lifecycle of the vessel (design, build and sustainment phases) using PDM/PLM software for project management, design, simulation, testing, supply chain management, monitoring and scheduling.
Digital Prototypes and Digital Twins


Simulation and 3D CAD modelling


https://www.dxc.technology/aerospace_defense/insights/146602-digital_twins_revolutionize_shipbuilding
Virtual Reality and Augmented Reality

https://www.cinav.fr/offre_d_emploi/integrateur-projeteur/

L’usinedigitale (The Digital Factory) Article by Julien Bergouhnoux October 4 2017
Act, Collaborate, Innovate

- Advanced Welder Training Centre
- VR content development – Trades and Vessels
- SA Government Virtual Shipyard Project - skills development in PDM/PLM software and collaborative tools
- Applied Research on Submarine Design and Production
- Naval Shipbuilding College DAC - AiGroup; SM TAFE; AMC; TAFE NSW; DIESC; and Endorsed Providers.
- Collaboration with NSC/Huntington Ingalls CAD designers
- New Courses and New Contextualisation.
Advanced Welder Training Centre
VR Content Development
Virtual Shipyard
Australian Research and Experimental Submarine (ARES)
Naval Shipbuilding College
New Courses

Certificate IV in Cyber Security, (Advanced Diploma under Development)

Diploma of Applied Technologies (Higher Level Apprenticeships)
Greater contextualisation and Navalisation of courses

Diploma of Engineering – Technical (3D CAD, Piping, HVAC, Material Science, Physics)
Diploma of Project Management – PLM and PDM
Partnership with French Training Provider Afpa
Pathways into Australian Maritime College
Lifelong Career Opportunities

SHIPBUILDING CAREER OPPORTUNITIES ALIGNED WITH TRAINING FROM TAFE SA

To view all training videos of the Diagram, please visit tafesa.edu.au/defence-industries

TAFE Directors
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