

14th July, 2023

Committee Secretary Foreign Affairs, Defence & Trade Committee, Department of the Senate, PO Box 6100, Parliament House CANBERRA ACT 2601

Email: fadt.sen@aph.gov.au

Dear Secretary,

### Re: <u>Performance of the Department of Defence in Supporting the Capability and Capacity</u> of Australia's Defence Industry: AMWU Submission

The capability and capacity of any government or commercial organisation depends upon a competent and well-organised workforce. Highly skilled workers are of critical importance to the success of the Department of Defence. This success requires that the value of a highly skilled workforce, with fairness and equity in mind, must be a priority of the development of Australia's defence industry capability and capacity.

The AMWU has previously pointed out in our submission to the *Defence Strategic Review* that nearly a decade has passed without any obvious signs of progress towards the Department of Defence's goals of developing a competent, well-organised and balanced workforce capable of supporting an industry expected to provide and sustain defence materiel.

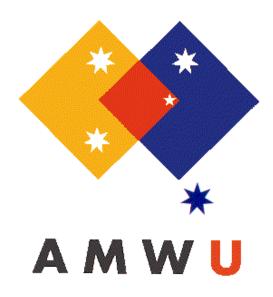
The AMWU resubmits for your attention our previous submission into this matter, and we strongly urge the Department of Defence to consider all 19 recommendations this submission made. All 19 of the AMWU's recommendations may be found at pages 34 to 36 inclusive of the attachment.

The AMWU is prepared to provide additional representation and verbal submissions as required.

Yours sincerely,

Australian Manufacturing Workers' Union Registered as AFMEPKIU National Office Level 4 133 Parramatta Road Granville NSW 2142 Telephone: 02 8868 1500 Facsimile: 02 9897 9274 amwu@amwu asn.au

STEVE MURPHY NATIONAL SEGRETARY Performance of the Department of Defence in supporting the capability and capacity of Australia's defence industry Submission 15



Submission of the Australian Manufacturing Workers' Union

to the Defence Strategic Review

October 2022

"Sovereign Industrial Capability Priorities are capabilities that are critical to Defence and must be developed or supported by Australian industry. This means Australia must have access to, or control over the skills, technology, intellectual property, financial resources and infrastructure that underpin the Priorities. The Priorities represent a subset of the industrial capabilities that Defence relies on to deliver its core objectives requirements (sic) and will be managed closely across defence and industry planning."<sup>1</sup>

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"Australia like many other countries has chosen to outsource numerous functions that in last century's wars were undertaken by uniformed personnel. Any future force expansion undertaken will now need to also greatly expand the external workforce undertaking the many outsourced functions ... budget analysis shows that Defence relies on a so-called 'fifth service', an external workforce of some 35,000 that comprises contractors, consultants and service providers. This is about 30% of Defence's total workforce."<sup>2</sup>

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"We're in a rapidly changing and deteriorating strategic environment where competition, and aggressive grey zone tactics are becoming increasingly common ... This, along with the rapid pace of technological change, are challenging Defence's capability advantage."

"With rapid advances in artificial intelligence and autonomous systems, Defence will need to see a reshaping and reskilling of its workforce.

"We're starting to see robots that can outperform humans in accuracy, in safety, and in speed. This means we're anticipating a change in our workforce needs. Where once we may have needed humans to perform a task – we're now asking humans to develop and design systems and robots to take on these roles.'

"Not only will Defence need a STEM-focused workforce to innovate these new capabilities, but to operate them too."<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> <u>https://www.defence.gov.au/sites/default/files/2021-09/Sovereign-Industrial-Capability-Priorities-</u> <u>Factsheet.pdf</u>

<sup>&</sup>lt;sup>2</sup> <u>https://www.defenceconnect.com.au/key-enablers/10785-mobilising-defence-s-forgotten-external-workforce</u>

<sup>&</sup>lt;sup>3</sup> <u>https://www.australiandefence.com.au/news/filling-the-well-adm-stem-in-defence-summit-2022?utm\_medium=email&utm\_campaign=ADM%20Premium%20-</u>

<sup>%2025%20</sup>Aug%202022&utm content=ADM%20Premium%20-

<sup>&</sup>lt;u>%2025%20Aug%202022+CID 561a58cf6f1c4cc9ecabe6385a4b08e1&utm source=Email%20marketing%20soft</u> ware&utm term=Filling%20the%20well%20%20ADM%20STEM%20in%20Defence%20Summit%202022

## Introduction

- The Australian Manufacturing Workers' Union (AMWU) is a registered trade union. It is a national organisation of approximately 55,000 members. It represents a wide range of blue- and white-collar workers within Australian manufacturing, engineering and science, from production and trades employees and their supervisors to planners plus drafting and technical employees.
- 2. The AMWU has civilian members within the Department of Defence (DoD or the Department), including each of the Armed Services and the Capability Acquisition and Sustainment Group (CASG), Defence Science and Technology Group (DSTG), Joint Capabilities Group, Australian Geospatial Intelligence Organisation and the newly-established Naval Shipbuilding and Sustainment Group. It also has members within various contractors to Defence, including BAE Systems, Thales, Ventia, Boeing Aerostructures, Marand Precision Engineering, TAE, Quickstep, ASC, QinetiQ, Sikorsky, Varley Engineering and Raytheon, and within related sub-contracting firms (including e.g. Bisalloy<sup>4</sup> and APV<sup>5</sup>). A number of these members are former military personnel.
- 3. It is not uncommon for AMWU members to move from public to private sector defencerelated employment. Less frequently, movement is the other way.

### The Review's Terms of Reference

4. This submission will focus on the following passage from that section of the review's terms of reference headed "Purpose":

consider the priority of investment in Defence capabilities.

- 5. In framing this submission, the AMWU noted that the review's glossary defines:
  - "force posture" as including "the capabilities ... that can be deployed at short notice,
     ... the ability of our personnel to sustain high-tempo operations and our
     connectedness with ... industry to achieve intended objectives during war and
     peace"; and

<sup>&</sup>lt;sup>4</sup> A producer of high-performance armour which has teamed with Rheinmetall on the Land 400 project.

<sup>&</sup>lt;sup>5</sup> A seat-belt manufacturer exporting safety harnesses to the US military.

- fundamental inputs to capability as including "collective training ... supplies, support and industry".
- 6. In summary, this submission will argue that the combined workforces of the private and public sectors engaged in engineering (and science) should be regarded as a "defence capability" and assigned priority for investment. Such investment will advance Australia's sovereignty relating to defence materiel.
- 7. The latest materiel should be state-of-the-art. If it is not, Australia is left vulnerable to those with superior technology. These considerations demand a highly skilled workforce.
- 8. The investment required in that workforce will require attention to, amongst other things:
  - skills development and maintenance;
  - workforce retention;
  - career pathing;
  - the use made of workers' competence; and
  - ➢ rates of pay.

A higher premium should be placed on experience than is currently the case.

# **Sovereignty**

- 9. "Sovereignty" as referred to in the first of the three quotes on page 2 of this submission raises issues associated with, amongst other things, procurement, acceptance of delivery, sustainment and, before them, design specifications (including the amount of local content).
- 10. In August 2022, the AMWU published a booklet entitled "Rebuilding Sovereign Capabilities in Australia's Defence Industry". A copy is at the first attachment accompanying this submission.

### The Two Workforces

11. At a minimum, Australia needs the ability to:

- identify the materiel which suits its particular needs (and budget);<sup>6</sup>
- > have that materiel reliably supplied to its specifications and timelines; and
- sustain that materiel.<sup>7</sup>

The first two of these needs place demands on the Department of Defence (DoD), inclusive of its civilian workforce. The latter two require support from the private sector.

12. An appropriate balance needs to be struck between the workforces of the two sectors,<sup>8</sup> and a clear definition of the respective roles and interactions of the two is required. Without such definition, there will potentially be duplication of effort or - worse – contrary directions taken by the two sectors, given their different motivations. As one journalist wrote in May 2022 about the contracting out of government work in sectors other than defence:

Contracting out became fashionable in the 1980s and 1990s when everyone was desperately trying to look like they were reducing the (apparent) size of government. The belief that the private sector always did things better was holy writ.

But it has become a low farce as time has gone on. Politicians have some half-life, or muscle memory, that this is 'what you do'.

But there have to be questions now about how efficient these arrangements are in either a financial or outcomes sense.

And earlier in the same article:

... it's been a long time since anyone in politics actually said, 'Hang on, we as politicians (and therefore the voters), don't really have any direct line of sight, or accountability, on what happens in these most vital of services'.<sup>9</sup>

13. The journalist's words echo those written by the AMWU as follows in a submission it put in October 2015 to the Senate's Foreign Affairs, Defence and Trade References Committee Inquiry on the Capability of Defence's Physical, Science and Engineering (PSE) Workforce (with one footnote removed):<sup>10</sup>

<sup>8</sup> Noting that the ADF will also have a role in sustainment, particularly during operations.
 <sup>9</sup> <u>https://www.abc.net.au/news/2022-05-07/australia-hospitals-aged-care-disability-systems-election-focus/101045490</u>

<sup>&</sup>lt;sup>6</sup> From a wide range of materiel across four domains and an even wider potential mix of different types of materiel.

<sup>&</sup>lt;sup>7</sup> Better to design and build as well, this facilitating subsequent sustainment.

<sup>&</sup>lt;sup>10</sup> At page 10 of the submission, n52 below.

The dominant assumption seems to be that because private industry has performed a number of former PSE functions well, it can perform them all well. The following questions seem to be rarely, if ever, posed:

- Are there some PSE functions that private industry can't or shouldn't perform?
- As between Defence and private industry, which sector would provide best value for money (as opposed to least cost) in performing particular functions?
- What interactions occur between the PSE and private industry workforces that ensure the system works in the public interest?
- What would happen if a PSE workforce of viable size and composition was not available for these interactions to occur?

The AMWU would argue, for example, that private industry should not be allowed to specify without oversight the design or specification of materiel that it will provide. Nor should a manufacturer have the final say on the quality of what it has delivered.

### 14. Along related lines, another commentator has written:

There is an unspoken assumption that companies undertaking outsourced defence work will invest to raise worker productivity but with these contracts often only several years long, the necessary investment may not bring an adequate return on the capital used and not occur. Moreover, the next tender issued for the work several years later could be written using the first as a template and overlook requesting productivity improvements. By that time, the staff writing the successive government tenders will have little understanding of the outsourced function, and are unlikely to be aware of the latest technology or productivity improvements being used for such tasks. Outsourcing can unintentionally lead to productivity stagnation.<sup>11</sup>

15. The AMWU understood the First Principles Review: Creating One Defence<sup>12</sup> (the FPR

**report**) to be alert to the dangers of poorly regulating the relationship between the two

sectors, when it wrote:

The capability development life cycle... is critical in enabling Defence to perform its primary role of defending Australia and contributing to the protection of its national interests. Defence must efficiently and effectively procure capability and provide robust and timely advice to Government through an end-to-end capability development process...

Defence needs a smart buying function which operates within the larger government system and global supply chains.<sup>13</sup>

<sup>&</sup>lt;sup>11</sup> n2 above.

<sup>&</sup>lt;sup>12</sup> <u>https://www.defence.gov.au/sites/default/files/2022-01/FirstPrinciplesReviewB.pdf</u>

<sup>&</sup>lt;sup>13</sup> Ibid, 32.

16. Citing the United States Accountability Office, the FPR report defined a "smart buyer" as

one:

who retains an in-house staff who understands the organization's mission, its requirements, and its customer needs, and who can translate those needs and requirements into corporate direction. A smart buyer also retains the requisite capabilities of technical knowledge to lead and conduct teaming activities, accurately define the technical services needed, recognize value during the acquisition of such technical services, and evaluate the quality of services ultimately provided. As long as the owner retains the in-house capabilities to operate as a smart buyer of facilities, there does not appear to be any greater risk from contracting out a broad range of design review-related functions, so long as such functions are widely available from a competitive commercial marketplace. If the owner does not have the capacity to operate as a smart buyer, the owner risks project schedule and cost overruns and facilities that do not meet performance objectives.<sup>14</sup>

17. One of the key recommendations (identified as such) in the FPR report was to "ensure committed people with the right skills are in appropriate jobs to create the **One Defence** workforce."<sup>15</sup> (Original bolding) This recommendation was elaborated later in the report in seven parts, the third of which read:

 $\ldots$  as many functions as possible be performed by public servants or outsourced if they are transactional in nature.  $^{\rm 16}$ 

18. Given the levels of outsourcing they had witnessed over the 25 years or so preceding the FPR report, those unions with civilian membership practising engineering and science within DoD enquired as to the potential application of Recommendation 4.3. They were advised that:

Transactional services are defined by the Department of Finance as services that are high volume, low risk, and low or medium complexity that lend themselves to scale. These include services such as accounts payable, accounts receivable, ledger management, and pay and conditions.

...

Defence does not classify engineering and technical work as "transactional work".17

<sup>&</sup>lt;sup>14</sup> Ibid, 33.

<sup>&</sup>lt;sup>15</sup> Ibid, 7.

<sup>&</sup>lt;sup>16</sup> Ibid, 9. Recommendation 4.3.

<sup>&</sup>lt;sup>17</sup> Quoted from a paper prepared for the Department's National Workplace Relations Committee – see n84 below. That paper was headed "Action Items Relating to the First Principles Review" and was received by the AMWU on 11<sup>th</sup> July, 2017.

# **Changes in Context**

- 19. The role of government at the federal and State levels was more "hands on" prior to (say) the late 1980s.<sup>18</sup> Associated with that, the two levels of government regularly trained trade apprentices and technical trainees.<sup>19</sup>
- 20. Progressively since then, much of government engineering, including defence production and sustainment, has been outsourced to private industry and Australia's associated entry-level training effort in engineering has fallen, with inadequate attention paid to vocational education and training (**VET**), particularly as delivered through the TAFE system.
- 21. Consider<sup>20</sup> that between July 1991 and July 2021, the number of people employed in Australia increased by 73.6 per cent.<sup>21</sup> Between May 1991 and May 2021, the number of employed technicians and trades workers<sup>22</sup> increased by 39.7 per cent.<sup>23</sup> Yet the number of metal/vehicle and electrical trade apprenticeships completed each year between June 1991 and June 2021 increased by only 15.8 per cent,<sup>24</sup> with the metal/vehicle completions having fallen by 18.3 per cent<sup>25</sup> and the electrical having increased by 66.7 per cent.<sup>26</sup>
- 22. The issues paper prepared by Treasury in August 2022 in preparation for the Federal Government's Jobs and Skills Summit stated that:

<sup>&</sup>lt;sup>18</sup> Back then the federal government owned and operated shipyards, an aircraft factory and munitions and ordnance factories. Civilian workers employed directly by the Department also maintained a range of defence facilities and materiel (including e.g. Army vehicles).

<sup>&</sup>lt;sup>19</sup> Including within the various railways and State-run utilities.

 $<sup>^{\</sup>rm 20}$  With caution, given the different data sources and what they were measuring.

<sup>&</sup>lt;sup>21</sup> From 7,583,000 to 13,163,300. Source: <u>https://www.abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/latest-release</u> (Released 21/9/22) Table 02: Australia; Employed total; Persons.

<sup>&</sup>lt;sup>22</sup> Of all types, including construction, food and other trades.

<sup>&</sup>lt;sup>23</sup> From 1,285,600 to 1,796,500. Source: n21 above Table 07: Technicians and Trades Workers; Employed total; Persons.

<sup>&</sup>lt;sup>24</sup> From 32,200 to 37,300; Source <u>https://www.ncver.edu.au/research-and-statistics/data/all-data/historical-time-series-of-apprenticeships-and-traineeships-in-australia-from-1963-to-2021</u> Table 7. Note that there were peaks and troughs in the number of completions during the 30 years, with completions having fallen in the first ten, risen in the second and fallen again in the third.

<sup>&</sup>lt;sup>25</sup> From 12,000 to 9,800. Ibid.

<sup>&</sup>lt;sup>26</sup> From 4,800 to 8,000. Ibid.

42 per cent of technician and trade occupations are currently facing a skills shortage ... Completion rates for trade apprentices declined to 54 per cent for those who commenced in 2017, 5 percentage points lower than completion rates for those commencing in 2013. Skills shortages are projected to continue in technician and trade occupations.

... in other industries – particularly in ... technology and specialised trade roles – shortages were evident before the pandemic and have just become more acute.<sup>27</sup>

23. The National Skills Commission (NSC) issued a report in October 2022,<sup>28</sup> of which the

ABC wrote:29

...technicians, trade workers and professionals had the most shortages as a proportion of the workforce.

Nearly 50 per cent of trade and technician jobs were in shortage in 2022. For professionals, it was about 40 per cent.

The commission said shortages in both had been persistent over time, **suggesting Australia's tightening job market was not the only explanation.** (Bolding added)

24. The NSC's report included the following:

The tightness in the labour market for Technicians and Trades Workers is also evident in the SERA data, which shows that employers typically receive small pools of applicants, with only around a third being suitably qualified. Most employers required applicants to hold a formal qualification, most commonly a Certificate III or IV, or an equivalent trade qualification. Despite this, employers still mostly struggled to find applicants who satisfied their experience requirements, with the majority of applicants (65%) in this major group being found unsuitable due to a lack of experience in the occupation.<sup>30</sup>

... the estimated vacancy fill rate was particularly low for occupations in Automotive and Engineering Trades ... Electrotechnology and Telecommunications Trades.<sup>31</sup>

25. The Minister for Skills and Training, Brendan O'Connor, was quoted in the following

terms:

We've failed to identify existing shortages and forecast areas of demand in the labour market.

<sup>29</sup> <u>https://www.abc.net.au/news/2022-10-06/national-skills-commission-report-occupation-shortages-soar/101505668</u>

<sup>&</sup>lt;sup>27</sup> <u>https://treasury.gov.au/sites/default/files/2022-08/2022-302672-ip\_0.pdf</u>, 8.

<sup>&</sup>lt;sup>28</sup> https://www.nationalskillscommission.gov.au/sites/default/files/2022-

<sup>10/2022%20</sup>SPL%20Key%20Findings%20Report%20-%206%20October%202022 0.pdf

<sup>&</sup>lt;sup>30</sup> n28 above, Section 2.2. SERA is the acronym for the survey of employers who recently advertised.

<sup>&</sup>lt;sup>31</sup> Ibid, Section 4.2. Also, see and explore the skills priority list at

https://www.nationalskillscommission.gov.au/topics/skills-priority-list ,noting the observation that "there are ongoing persistent shortages of technician and trade occupations. Specifically, shortages are most acute in Professional occupations (Skill Level 1), requiring higher level qualifications and experience, and Skill Level 3 occupations among Technicians and Trades Workers"

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We need to invest more in our own workforce and prospective workforce, invest in TAFE, invest in universities ... so that we have the skills necessary to fill the existing gaps and those future shortages that will happen if we don't  $...^{32}$ 

- 26. Since the first half of the 1990s the focus of industrial relations (**IR**) has progressively shifted towards the enterprise level, and the net effect of legislative changes made to IR legislation since the mid-2000s has been to shift the balance of bargaining in favour of management relative to the workforce.<sup>33</sup> Arguably, as much or more attention is now paid to cost reduction as productivity improvement, particularly (but not exclusively) in the public sector.<sup>34</sup> These developments and others<sup>35</sup> collectively have had an effect on wage outcomes and on the choices employees make between potential employers when seeking to change jobs.<sup>36</sup> They have also affected workforce morale.
- 27. After the onset of COVID-19 and the interruptions to supply chains that the pandemic has wrought,<sup>37</sup> there has been a shift in thinking away from the "just in time economy" more towards what some have characterised as the "just in case economy", with calls for a greater measure of national sovereignty to be fostered.<sup>38</sup> Such a movement demands policy responses different from those outlined in paragraphs 20 and 26 above.

5.8 Evidence to the Committee demonstrated a range of possible scenarios which threaten Australia's ability to function as a secure, prosperous first-world nation due to supply chain failure. These include cyber-attack, grey-zone or coercive actions by a state actor, regional conflict, economic crisis, natural disaster or future pandemics.

•••

. . .

5.10 In relation to defence capability, Northrop Grumman told the Committee:

<sup>37</sup> Mimicking the interruptions likely during a period of significant international conflict (vide the Ukraine).

<sup>&</sup>lt;sup>32</sup> n29 above.

<sup>&</sup>lt;sup>33</sup> (Professor) David Peetz (2018), "Collective Bargaining and Power" in Stewart, Stanford and Hardy (eds), *The Wages Crisis in Australia*, University of Adelaide Press, Adelaide.

<sup>&</sup>lt;sup>34</sup> Wage suppression has been pursued within the Australian Public Service (APS) since the late 2000s through a succession of centrally-imposed policy parameters and bargaining frameworks. See also Troy Henderson, "Public Sector Austerity and its Spill-over Effects", in Stewart, Stanford and Hardy (eds), n33 above.

<sup>&</sup>lt;sup>35</sup> <u>https://mckellinstitute.org.au/wp-content/uploads/2022/04/Wage-Suppression-Strategy-updated-v3.pdf</u>

<sup>&</sup>lt;sup>36</sup> For example, during a past mining boom, a number of technical employees abandoned DoD for FIFO work in the resources sector.

<sup>&</sup>lt;sup>38</sup> <u>https://www.abc.net.au/news/2020-05-02/coronavirus-pandemic-exposes-just-in-time-economy/12206776</u>

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Securing a degree of sovereign capability and supply chain resilience is particularly critical in the defence industry, where global disrupters like natural disasters, pandemics, cyber-attacks and conflict can significantly impact our ability to rely on our global partners and their supporting industry.<sup>39</sup>

# **Differences Between the Two Sectors**

- 28. In this section, production and trade employees are identified as blue-collar workers and technical<sup>40</sup> and professional employees as white-collar. The former group are sometimes referred to as manual workers and the latter as non-manual or conceptual workers. Trade and production supervisors might be categorised in either group, depending on whether they are first or second line supervisors.
- 29. Such employees move between the two sectors, predominantly from the public to private sector, although there is some movement the other way.
- 30. There are differences in the composition of the contemporary private and public sector defence workforces. The full range of classifications is represented in the former, with both white-collar and, relative to it, a high proportion of blue-collar work undertaken. By comparison, only a tiny proportion of today's civilian workforce within the DoD performs blue-collar work, with the remaining engineering and science work being undertaken by professionals supported by technical employees. The proportion of professional to technical employees has progressively increased over recent decades.
- 31. There are many hundreds of employers of various sizes within the defence private sector. Some operate across the four defence domains,<sup>41</sup> whilst others specialise in a narrow range of products or services within a supply chain. Common industrial instruments for such employers are the:
  - Manufacturing & Associated Industries & Occupations Award 2020 (MA10); and

<sup>&</sup>lt;sup>39</sup><u>https://parlinfo.aph.gov.au/parlInfo/download/committees/reportjnt/024552/toc\_pdf/Inquiryintotheimplic</u> <u>ationsoftheCOVID-</u>

<sup>&</sup>lt;u>19pandemicforAustralia%e2%80%99sforeignaffairs,defenceandtrade.pdf;fileType=application%2Fpdf</u>, 92-3. See also the section headed "Sovereign Capability" commencing on 109.

<sup>&</sup>lt;sup>40</sup> Technical employees include drafting and production planning employees. All are qualified via VET and experience.

<sup>&</sup>lt;sup>41</sup> Land, maritime, aerospace and joint.

- Professional Employees Award 2020.
- 32. Together, these two awards set out a classification structure of nominally 18 levels.<sup>42</sup> That structure is referenced against the Australian Qualifications Framework (AQF), progressing through successively higher levels of competence.
- 33. The highest classification level in MA10 is that of the Principal Technical Officer, whose work is defined in part as follows:
  - (a) ... Within organisational policy guidelines and objectives a principal technical officer:

(i)	<ul> <li>performs work requiring mature technical knowledge involving a high degree of autonomy, originality and independent judgment;</li> </ul>
	<ul> <li>looks after and is responsible for projects and coordinating such projects with other areas of the organisation as required by the operation of the organisation;</li> </ul>
	<ul> <li>is responsible for the coordination of general and specialist employees engaged in projects requiring complex and specialised knowledge;</li> </ul>
	<ul> <li>plans and implements those programs necessary to achieve the objectives of a particular project;</li> </ul>
	<ul> <li>in the performance of the above functions, applies knowledge and/or guidance relevant in any or all of the fields of designing, planning and technical work as required by the operation;</li> </ul>
	<ul> <li>operates within broad statements of objectives without requiring detailed instructions; or</li> </ul>
(ii)	• performs work at the above level of skill in a particular technical field;
	<ul> <li>has as the overriding feature of their employment the ability to perform creative, original work of a highly complex and sophisticated nature;</li> </ul>

<sup>42</sup> Including C2(a) & (b), with the Professionals Award setting out four levels equivalent to MA10's C1 level.

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• provides specialised technical guidance to other employees performing work within the same technical field.

**(b)** In a laboratory, a Principal Technical Officer will exhibit and use technical principles, research and development skills as well as interpersonal/supervisory skills in the coordination of a specialist laboratory team.<sup>43</sup>

- 34. All employees within the private sector have their pay and conditions of employment underpinned by a relevant award, although many are told that they are employed under a (common law) contract of employment. A proportion are covered by enterprise agreements. Such arrangements apply employer by employer and commonly enough site by site. They have given rise to disparate approaches to pay and conditions of employment.
- 35. The DoD is a single employer whose civilian employees<sup>44</sup> are employed under the Defence Enterprise Agreement 2017-2020 (DEA),<sup>45</sup> which is to be read in conjunction with DoD policies. The DEA continues, although it passed its nominal expiry date on 16<sup>th</sup> August, 2020. Three subsequent increases of 2.0 per cent each have been paid by Public Service Determination, with the next increase not due until at least August 2023.
- 36. Wage suppression has been operative within the DoD since the mid- to late-2000s.<sup>46</sup> It has seen the rates of those practising engineering and science fall well behind the private industry market.
- 37. The DoD contains a single classification structure, which is loosely referenced against the AQF. For example:

Technical work is performed within jobs that require an understanding of science, engineering, mathematics or design principles, and significant practical skills. Most technical work requires a level of **skill commensurate with** an AQF Diploma or Advanced Diploma. Such work is often performed in support of professionals.<sup>47</sup> (Bolding added)

<sup>&</sup>lt;sup>43</sup> At A.4.16 of MA10's Schedule A.

<sup>&</sup>lt;sup>44</sup> The most senior executives exempted.

<sup>&</sup>lt;sup>45</sup> <u>https://www.fwc.gov.au/document-</u>

search/view/aHR0cHM6Ly9zYXNyY2RhdGFwcmRhdWVhYS5ibG9iLmNvcmUud2luZG93cy5uZXQvZW50ZXJwcml zZWFncmVlbWVudHMvMjAxNy84L2FINDI1MTE1LnBkZg2/3/2c234cc7-0ee9-4b7b-bc93-5e2a3c6827b1/Defence%24%24Enterprise%24%24Agreement%24%242017

<sup>&</sup>lt;sup>46</sup> n35 above, 13.

<sup>&</sup>lt;sup>47</sup> Defence Classification Manual (DCM), 28. A pdf copy of the DCM is at the second attachment.

Advancement between classifications is predominantly by merit selection to vacant positions.

38. The effects of what is described in the previous sections will be identified in the sections which follow, the first addressing the DoD.

# The Department of Defence

- 39. The DEA in its Section B offers the DoD facility to pay a building defence capability payment (**BDCP**), which is described as a "premium [prescribed], in addition to the rate of salary otherwise payable under the Agreement, to some or all of the jobs within a critical occupation(s) or discipline within a workplace".
- 40. The BDCP is the subject of policy and policy guidance issued by the Department, both of which are currently being reviewed. In the meantime, current policy allows the BDCP to comprise both a premium of up to 10 per cent of the top of the employee's salary range and a bonus of up to a five per cent of the employee's annual salary (inclusive of the salary premium).
- 41. In late August 2022 the Department emailed unions to advise that 672 of its civilian employees were then the subject of 33 BDCP arrangements. The email continued:

... the Associate Secretary [has] approved the implementation of BDCP arrangements for 17 occupations. These arrangements will provide for 10% additional salary to approximately 3,000 positions across multiple Groups and Services.

The occupations were identified as those that have been categorised as 'Critical' or have a history of being classified 'Critical' or 'At Risk' for multiple years across the last 5 years.

- 42. 190 of the then current BDCPs were within the Capability Acquisition and Sustainment Group.
- 43. A number of media outlets reported in September, 2022 on "an incoming government brief to [the] Defence Minister" concerning shortages of certain skilled staff. One read in part as follows:<sup>48</sup>

<sup>&</sup>lt;sup>48</sup> Ben Packham (2022), "Defence 'faces uphill battle' to recruit key staff", *The Australian*, 11 September, 2022. See also Andrew Tillett, "Marles warned to boost Defence pay or risk missing recruitment targets", *The* 

[The brief] said workforce pressures in Defence were growing as historic low unemployment raised salary expectations for those with emerging technology and specialist skills.

"Paradoxically, Defence is not a competitive employer. When competing for a limited pool of experienced staff, we often lose out," the ... brief said. "These workforce shortages are being felt more directly in key workforce segments across the enterprise such as engineering, intelligence, communications and cyber."

The brief said workforce growth would be needed "across a range of new capabilities such as nuclear-powered submarines, AUKUS advanced capabilities, Space Command, guided weapons and national naval shipbuilding."

...

"If you're a diesel mechanic in Defence, you're ripe for the picking and they'll offer back a tonne of money," [Defence Personnel Minister, Matt Keogh] said.

- 44. The last line of the passage quoted in paragraph 41 above referred to a number of occupations having been identified as critical or at risk "across the last 5 years", that is since 2017.
- 45. A little over one year earlier, in April 2016, the Senate's Foreign Affairs, Defence and

Trade References Committee (the References Committee) delivered a report on the

capability of Defence's PSE workforce.<sup>49</sup> The following passages were included within

the chapter of its report headed "Committee View and Recommendations".50

5.6 ... it has been difficult for the committee to reconcile Defence's assurances that its PSE workforce 'is capable, meets the Government's requirements and is well placed to meet future challenges' with the other evidence received during the inquiry. This evidence included:

- the findings of previous reviews highlighting on-going issues, particularly with regard to the capabilities of the Defence engineering workforce;
- the declining capability to (sic) the Defence PSE workforce due to staffing reductions, recruitment restrictions and lack of workforce planning;
- > reports of difficulties recruiting some specialist technical positions;
- redundancies offered and taken up by specialist PSE personnel in areas of major future acquisitions;
- > descriptions of low morale in areas of the Defence PSE workforce; and
- > an increasing reliance on contractors to undertake PSE responsibilities.

5.9 Defence appears to have been given objectives which include reducing its workforce head count while increasing its engineering and scientific capabilities. This approach does

Australian Financial Review, 11 September, 2022 and Sarah Basford Canales, "We need to grow ADF", The Canberra Times, 11 September, 2022. All three articles addressed both military and civilian personnel. <sup>49</sup><u>https://www.aph.gov.au/Parliamentary Business/Committees/Senate/Foreign Affairs Defence and Trade/</u> <u>Defence PSE Workforce/Report</u>

<sup>&</sup>lt;sup>50</sup> For the convenience of the reader, one footnote used by the References Committee in its report has been amended in the passages quoted below.

not necessarily accord with the recommendation of the FPR<sup>51</sup> that 'the focus on public service reductions as the primary efficiency mechanism for Defence cease'. The committee does not agree that a strict staffing cap approach is the appropriate framework for decision-making regarding Defence's PSE workforce capabilities. The Defence White Paper's focus on innovation and new capabilities strengthens the case for the maintenance and development of an effective in-house Defence PSE workforce.

5.10 ... the committee received evidence that some Defence PSE workforce capabilities had been significantly reduced through lack of recruitment, a lack of investment in skills development and a lack of succession planning for those leaving Defence. A key concern is that Defence, in responding to a series of repeated efficiency measures from government, has permitted its in-house PSE capabilities to decline to critical levels.

5.13 The committee is concerned at the extensive focus on 'job families' as opposed to competence ... A 'job-families' framework may be suitable for many management and administrative roles within a large organisation but it appears inadequate for many engineering or technical appointments that require knowledge and experience specific to the task.

46. Paragraphs 41 and 43 above imply that the warnings of the References Committee were either ignored or given inadequate attention. That has certainly been the observation of the AMWU, both before the References Committee reported<sup>52</sup> and subsequently. The union was critical then - and continues to be - of what the References Committee identified in its paragraph 5.10 as "a lack of investment in skills development and a lack of succession planning for those leaving Defence". As the union wrote in September 2015:<sup>53</sup>

The results have been inevitable ... an absence of succession planning, an ageing of the PSE workforce and an emerging risk to capability.

- 47. Nobody least of all the Department of Defence should be surprised at where the Department finds itself today.
- 48. The failures identified by the References Committee have been compounded since by the following factors acting in combination:
  - continuation of an unnecessarily narrow view of the pool of competent PSE employees available to the Department;

<sup>&</sup>lt;sup>51</sup> First Principles Review: n12 above, 67.

<sup>&</sup>lt;sup>52</sup> The AMWU put a submission of 100 paragraphs to the References Committee's inquiry in October 2015 and gave witness evidence to it in public hearing in February 2016. A copy of the submission can be provided upon request.

<sup>&</sup>lt;sup>53</sup> At paragraph 30 of its submission to the References Committee.

- the default pay range for each level of employee, regardless of occupation, being common across the Defence's non-SES workforce;<sup>54</sup>
- > wage suppression (practised through enterprise bargaining); and
- > (what anecdotally appears to be) an increasing rate of labour turn-over.
- 49. To better understand these points it is helpful to know that the Department has two principal employment streams, which are set out in the Defence Classification Manual, These streams are for:
  - human science and administration (HSA); and
  - ▶ physical science and engineering (PSE).<sup>55</sup>
- 50. These two streams share common classification levels and salary rates.<sup>56</sup> Put another way, an APS Level 5 in either stream is paid within the same salary range, whether they be maintaining navigational aids at an airfield or performing payroll functions in Canberra, both worthy pursuits but which draw their practitioners from very different labour markets.
- 51. The PSE stream is defined to include "Air Traffic Control, Avionics, Bio/chemistry, Dental assistance/therapy, Engineering, Fuel Science, Geoscience, Graphic Design, Land Surveying, Logistics, Marine Surveying, Materials Science, Metallurgy, Meteorology, Metrology, Naval Architecture, Oceanography, Petroleum Technology, Pharmacy, Physics, Surveying and Textile Technology."<sup>57</sup>
- 52. Technical and trade employment fall within the PSE employment stream.
- 53. The origins of the technical workforce are set out in the section of the DCM headed "PSE Antecedents", in part as follows:

<sup>&</sup>lt;sup>54</sup> The estimated average full-time equivalent civilian workforce in 2022-3 is 16,991 (or 16,806 with the SES excluded). See Table 10 at page 21 of the Defence Portfolio Budget Statements 2022-23: Budget Related Paper No 1.3A.

<sup>&</sup>lt;sup>55</sup> n47 above, 26. There is also a retained standard for science and technology work, commencing at 155, the application of which is confined to DSTG.

<sup>&</sup>lt;sup>56</sup> See Appendix C of the DEA (at n45 above), whose Table 2 sets out a number of broadbands, the salary ranges of most of which derive from those of the "standard classifications" in the Appendix's Table 1. <sup>57</sup> n47 above, 28.

As work moves from trade through technical to the professional, the significance of:

- the manual content of the work decreases; and
- the conceptual content increases.

The relationship of these different bodies of work was addressed in the following terms by the (then) Public Service Board, upon the introduction of revised Technical Officer structures from 1968 to 1970:

The Technical and Drafting Grades were established in 1956... [as part of] a new approach to professional and technical work designed to ensure that professional staff generally are engaged in duties which require professional qualifications and that greater use is made of the capacity of non-professional staff for technical duties which are within their competencies.

...it is becoming increasingly necessary to ensure that support be provided by people training to a fairly high level of technical knowledge and understanding, substantially above skilled trades, to whom professionals can devolve and transfer functions as they assume more of an 'accepted-practice' character. **Unless a competent work force is available for this purpose it is inevitable that professionals will be engaged on functions which do not require the use of their professional qualifications**. This situation can, and does arise, and is a matter for serious concern.

In addition to the well-established sub-professional role of providing direct support to professionals, there is an every-increasing volume of technical work, which in the past was frequently regarded as professional work, but which, in the framework of current standards of professionals training, should now be identified with the sub-professional level. This, the sub-professional can perform in his [sic] own right, and is an important component of his [sic] work.<sup>58</sup>

(Bolding added)

54. Skills Australia published a report in June 2012 which was titled "Building Australia's Defence Supply Capabilities".<sup>59</sup> Whilst it addressed defence civilian employment generally, not just within the Department of Defence, the following of its observations are pertinent, given that the public and private sectors compete for the same skills:

...there are overlaps between work undertaken by technicians, and work undertaken by professional engineers, and the two groups commonly "compete" to perform the same work.

This overlap in skills can be used by Defence organisations to improve the utilisation of skills and boost productivity.<sup>60</sup>

Our discussions with industry and other stakeholders identified the important contribution that technicians make to the Australian Defence industry. Although not large in employment terms

<sup>&</sup>lt;sup>58</sup> Ibid, 126. The relationship as described by the Public Service Board is consistent with the description currently given in the Australian Standard Classification of Occupations, 2<sup>nd</sup> Edition for Building and Engineering Associate Professionals - Minor Group 312; see in particular Unit Groups 3123 – 5 inclusive. <sup>59</sup> The report may be found at <u>http://hdl.voced.edu.au/10707/223067</u>

<sup>&</sup>lt;sup>60</sup> Ibid, 12-13.

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within the Australian and New Zealand Classification of Occupations (ANZSCO) categories, the importance of their relationship with the trades and professions, particularly within the engineering occupations, should not be under-estimated. Greater use of teams of technicians and production employees as appropriate to perform more of the work undertaken by engineers could help to reduce demand for engineering skills and lead to better use of skills within the workplace.<sup>61</sup>

- 55. The AMWU does not have the figures available to it, <sup>62</sup> but its observation is that since around the year 2000 the proportion of degree-qualified to VET-qualified PSE employees within the Department has shifted substantially towards the former.<sup>63</sup> If this observation is more or less accurate, it implies that:
  - the degree-qualified are performing at least some work of "accepted-practice character" and are "engaged on functions which do not require the use of their professional qualifications"; and
  - the demand for professional engineering skills has been increased unnecessarily when such skills are in particularly high demand.
- 56. At a minimum, this is unintelligent labour market economics. Anecdotally, it is also a source of frustration for engineers within the Department who now perform what for them are lower-level functions that others used to competently perform for them.
- 57. The example set out at paragraphs 58 to 62 inclusive below may characterise the relative emphases currently given by the Department to the degree-qualified and VET-qualified.
- 58. The training packages for VET-qualified employees in engineering fall within the responsibility of the Manufacturing and Engineering Industry References Committee (IRC).<sup>64</sup>

<sup>&</sup>lt;sup>61</sup> Ibid, 5. See also the definition of the work of the Principal Technical Officer cited at paragraph 26 above.
<sup>62</sup> The union is not even confident from past enquiries that the figures are known to the Department itself.
<sup>63</sup> The union included the following passage at paragraph 83 of its submission of October 2015 to the
References Committee (see n52 above): "... Defence has, intentionally or otherwise, since (no later than) the
early 2000s placed far greater emphasis on higher education relative to vocational education and training. It
has done so under the rubric of 'professionalisation''. The union has seen little since to change its view.

<sup>&</sup>lt;sup>64</sup> https://ibsa.org.au/irc/manufacturing-and-engineering-industry-reference-committee/

59. The IRC has since 2020 been sponsoring a project on certain skills relevant to the work of

technicians, addressing in particular:

- prototyping;
- planning;
- materials;
- non-destructive testing; and
- applied technologies.
- 60. Such skills are directly relevant to the Department, particularly its Capability Acquisition and Sustainment Group, Defence Science and Technology Group, the newly-established Naval Shipbuilding and Sustainment Group and the proof and experimental role of its Joint Capabilities Group.
- 61. The Department convenes a STEM Council, to which the AMWU wrote on 16<sup>th</sup> April,
  2021. The union's letter read in part:

The work of [the IRC] is, in the AMWU's strong view, relevant to the Department, not least because of the sophistication of defence materiel. For example, the first of them will be addressing the development of a competency-based Diploma of Applied Technologies and a suite of other technical qualifications at the Diploma and Advanced Diploma levels.

There would be mutual benefit in liaison between the IRC and the Defence STEM Council.

- 62. Despite a number of subsequent enquiries of and urgings made to the Department by it, the union is unaware of any involvement in the technicians' project by the DoD before the IRC issued its first draft of the proposed new training packages for consultation in September 2022.<sup>65</sup>
- 63. In July 2020, Kinexus<sup>66</sup> published the seventh edition of its *Defence Industry Insights: Salaries, Jobs & Sector Overviews.* It had collected data for the publication in May 2020, and wrote that "variance in the data [was] analysed until the mean remuneration for each sector, role and level of experience [was[ produced to lowest standard deviation."
- 64. The Kinexus report identified such mean remuneration for a wide range of engineering designations by five States and the Australian Capital Territory. Four of those designations

<sup>&</sup>lt;sup>65</sup> See the third attachment.

<sup>&</sup>lt;sup>66</sup> https://www.kinexus.com.au/about

have been chosen below to compare the mean remuneration paid for them in the "defence market"<sup>67</sup> with that paid by the Department in May 2020. New South Wales has been chosen as the representative State.

- 65. The rates for drafters with 1 to 3 years' experience, 10 to 15 years' experience and 20 or more years' experience were respectively \$90,000, \$165, 000 and \$180, 000.<sup>68</sup> The Department at that time was paying drafters at APS Levels 5 and 6 within the range of \$73,636 to \$92,150 (exclusive of any payments like those addressed in paragraphs 39 and 40 above).<sup>69</sup>
- 66. The rates for electronics technicians were respectively \$70,000, \$110,000 and \$120,000. Again, the Department was paying within the range of \$73,636 to \$92,150.
- 67. The rates for mechanical engineers were \$85,000, \$150,000 and \$180,000. The Department was paying engineers at APS Level 6 and Executive Level 1 within the range of \$80, 669 to \$115,005.
- 68. The rates for project planners/schedulers were \$90,000, \$165,000 and \$180,000. The Department was paying planners (to the extent that any were employed as such at the time) at APS Levels 5 and 6 and Executive Level 1 within the range of \$73,636 to \$115,005.
- 69. It is likely that the gap between the market rates payable for employees within engineering and those paid by the Department has increased since May 2020, given the passage cited in paragraphs 22 and 26 above and the effects of the practices described in paragraphs 35 and 36.
- 70. The rates paid to employees of common designation (and experience) by different employers are affected by a range of variables, only one of which is enterprise bargaining. Nevertheless, that one variable is significant and in the AMWU's strong view has been in relation to the DoD's civilian workforce. It has resulted in the relatively low rates of pay for personnel practising engineering within the Department, as exemplified in paragraphs 65 to 68 inclusive above. It has also, on the advice of the AMWU's delegates, contributed to the technical and trade workforce feeling, at a minimum, unappreciated or, at its worst, disrespected.

<sup>&</sup>lt;sup>67</sup> It is possible that higher rates were on offer for at least some designations in other sectors of the Australian labour market, e.g. the resources sector.

<sup>&</sup>lt;sup>68</sup> The same three ranges of experience will be used for all four examples.

<sup>&</sup>lt;sup>69</sup> This same exclusion applies in all four comparisons.

- 71. Consider here that it took approximately 45 months to negotiate the last two of DoD's enterprise agreements. Consider also that the workforce lost conditions in the process for pay results that were inadequate. The process and outcomes were so scarring that, when offered the opportunity to receive future pay increases of (a relatively meagre) two percent a year without enterprise bargaining, the workforce voted overwhelmingly to accept.<sup>70</sup>
- 72. This outcome is broadly consistent with observations attributed to Professor Shae McCrystal as expressed at the Federal Government's Jobs and Skills Summit, in which she is cited as having said:

... public sector wage caps had depressed wage increases in that part of the economy to below private sector gains, but regulatory design was also at play.

"The [Fair Work] Act creates a system of agreement- making, not a system of bargaining".

"The levers within the system of agreement-making are held entirely by employers who initiate, control and finalise the agreement-making processes.

"Unless employers are required to bargain through a majority support determination ... there is little incentive for them to engage in the bargaining process".<sup>71</sup>

73. The DEA was "negotiated" under two bargaining frameworks set by the former Coalition

Government and enforced by the Australian Public Service Commission (**APSC**).<sup>72</sup> It went to four votes before it was eventually accepted by an exhausted workforce.<sup>73</sup>

74. It is of note that the agreement which the DEA replaced nominally expired on 30<sup>th</sup> June 2014, but the DEA did not become operative until 16<sup>th</sup> August, 2017.<sup>74</sup> The nominal expiry date (**NED**) of the new agreement was 16<sup>th</sup> August, 2020. Employees who worked for the DoD during the more

 $<sup>^{70}</sup>$  69.4% of the workforce cast a vote, or which 91.2% voted in favour.

<sup>&</sup>lt;sup>71</sup> 'Fair Work Act Optimism "Misplaced": Expert', *Workplace Express* (an electronic industrial relations newsletter), 1<sup>st</sup> September 2022.

<sup>&</sup>lt;sup>72</sup> The Australian Government Public Sector Workplace Bargaining Policy, issued by the APSC in March 2014, and the Workplace Bargaining Policy 2015, issued by the APSC in November 2015.

<sup>&</sup>lt;sup>73</sup> The agreement which it replaced had been negotiated under a Labor Government and was accepted only on the third vote.

<sup>&</sup>lt;sup>74</sup> Negotiations did not start until 25<sup>th</sup> September, 2014, and may not have even then had the AMWU not applied for a majority support determination under the Fair Work Act and its application been listed for hearing by the Fair Work Commission, prompting the Department to agree to bargain before the union's application was heard by the Commission. The vote by which the DEA was approved closed on 20<sup>th</sup> June, 2017, almost 33 months after "negotiations" began. (The time that had elapsed between the start of negotiations for the agreement that the DEA replaced and the vote by which that earlier agreement was approved was 12 months and one day.)

than six years that separated the two NEDs received pay increases of only six per cent (or 6.1% after compounding) during that period.<sup>75</sup>

- 75. The BDCP facility identified in paragraph 39 above was introduced through enterprise bargaining and has been subsequently amended through the same process.
- 76. It first appeared in the Defence Collective Agreement (**DeCA**) 2006-2009,<sup>76</sup> where its first three paragraphs read:

B10.1 Defence is committed to building capability through the appropriate development and maintenance of employees' skills and knowledge.

B10.2 Part E will be harnessed to increase the number of employees available to Defence with the appropriate skills and experience.

B10.3 The Secretary may declare an employment category to be of strategic significance to Defence capability. These strategic employment categories may require additional support to facilitate the achievement of Defence's capability requirements. These employment categories will change through time, as the numbers of appropriately qualified personnel increase and/or as Defence capability requirements mature or change.

- 77. Part E of the DeCA was headed "Upskilling Training, Education and Career Development". It contained 10 sections, including one headed "Alignment with the National Training Framework", and occupied almost five pages of text.
- 78. By the time of the 2014 bargaining framework,<sup>77</sup> under which negotiations to strike the DEA were commenced, enterprise agreements were required to be "streamlined, clear and easy to read".<sup>78</sup>
   Its 2015 replacement carried a similar injunction at its paragraph 30.
- 79. These requirements have seen the BDCP "streamlined", such that it now exists to support the development of strategies "to assist in the attraction and retention of employees performing individual roles critical to Defence in critical occupations or occupational disciplines".<sup>79</sup> It is no longer referenced against an equivalent to Part E of the DeCA, now Part D of the DEA and headed "Leading Employees to High Performance".

<sup>&</sup>lt;sup>75</sup> Echoing paragraph 26 and footnote 34.

<sup>&</sup>lt;sup>76</sup> Lodged with the then Employment Advocate. Hyperlink not available.

<sup>&</sup>lt;sup>77</sup> n59 above.

<sup>&</sup>lt;sup>78</sup> See 7.1 of that framework.

<sup>&</sup>lt;sup>79</sup> n31 above, Section B.2.

- 80. In short, the role of the BDCP has shifted from the "development and maintenance of employees' skills and knowledge" to "attraction and retention". The latter may be consistent with the maintenance component of the former, but the development role has been relegated (at least within the text of the enterprise agreement). The shift need not necessarily mean that skills are not being fostered through Departmental policy, but if such attempts are being made paragraphs 41 and 43 above imply that they are less than effective.
- 81. It is perhaps noteworthy that the DeCA of 2006 contained no individual flexibility term, whereas the DEA does at its Section G7.<sup>80</sup> In the booklet of the DEA that the Department printed for distribution within its workplaces, an information box states that "Individual Flexibility Arrangements (IFAs) were previously known as Individual Defence Building Capability Payments (BDCP) arrangements", which is both inaccurate<sup>81</sup> and apparently oblivious to the existence of the DEA's paragraphs B2.3 to B2.9 inclusive. To be blunt, such confusion in relation to occupations or occupational disciplines critical to Defence capability should not exist. It does not instil confidence in the Department becoming the smart buyer overseeing an acquisition and sustainment budget measured in the hundreds of billions of dollars over a decade that the First Principles Review envisaged.<sup>82</sup> It gives greater emphasis to the individual than the critical occupation or discipline concerned, implying an ad hoc as opposed to systematic approach to remediation of any shortfall in required personnel.
- 82. Whether or not associated with the first three factors identified in paragraph 48 above (as since elaborated), the Department's separation rates<sup>83</sup> appear to have increased significantly in recent years.
- 83. The AMWU is a member of three consultative bodies within the Department, one for the Department as a whole<sup>84</sup> and two of which are specific to individual Groups.
- 84. The union's recollection is that roughly a decade ago it was told that the Department's preferred separation rate at the time was in the high single figures, approximating eight per cent.

<sup>&</sup>lt;sup>80</sup> Such inclusion was required by both the 2014 and 2015 bargaining frameworks. See 7.1 of the former and paragraph 39 of the latter. Such requirements were consistent with s.202 of the Fair Work Act 2009.

<sup>&</sup>lt;sup>81</sup> The word "individual" having been added to the backronym of BDCP without basis.

<sup>&</sup>lt;sup>82</sup> See paragraphs 16 and 17 above.

<sup>&</sup>lt;sup>83</sup> The percentage of the civilian workforce that leaves the Department in any one year.

<sup>&</sup>lt;sup>84</sup> The Defence National Workplace Relations Committee (**NWRC**) specified at paragraph 5.1 of the DEA (see n45 above).

- 85. A meeting of the NWRC held on 25<sup>th</sup> August this year heard that "the external labour market is hot", with (what the union understood to be) DoD's aggregate separation rate having increased from 10% to 15%, although the rates were said to vary both across Australia and by Group. The Department is seeking to identify the "key drivers" of this increase so that it can take appropriate remedial action.<sup>85</sup>
- 86. A meeting of the CASG Consultative Committee was held on 15<sup>th</sup> September this year. It was told that separation rates in that Group were between 14% and 20%, varying by Domain and geographical area.
- 87. One of the matters raised in discussion in both meetings concerned the time it takes potential recruits to gain the necessary security clearances. It was claimed by one person in the later meeting that it can take eight months to gain an NV2 clearance.<sup>86</sup>

# **Changes in Government Decisions and Contracts**

- 88. Periodically, the Commonwealth Government reverses or amends decisions previously made on materiel acquisition projects or hesitates before making such a decision. The next generation submarine is a notorious example. Land 400 Phase Three provides another example.<sup>87</sup>
- 89. Such changes of or hesitation in making decisions might be understandable, in light of emerging circumstances (including changes of government) and the multiple and competing claims made on a finite budget.<sup>88</sup> Nevertheless, they are destabilising both for:

<sup>&</sup>lt;sup>85</sup> The AMWU had asked the Department for more details, inclusive of the occupational differences in separation rates, particularly for the PSE workforce relative to the total civilian workforce, but those details were not available by the time this submission was completed.

<sup>&</sup>lt;sup>86</sup> <u>https://www.defence.gov.au/security/clearances/about/overview</u>

<sup>&</sup>lt;sup>87</sup> <u>https://www.australiandefence.com.au/defence/land/land-400-phase-3-cut-to-300-</u>

vehicles/utm\_medium/email/utm\_campaign/ADM+Today+-+22+Jun+2022/utm\_content/ADM+Today+-

<sup>+22+</sup>Jun+2022+CID c1070a2a06e6656f5df60d6924ca835e/utm source/Email+marketing+software/utm term/Land+400 +Phase+3+cut+to+300+vehicles/fbclid/IwAR12tGe85yLEpw6gS2p0k7qVWPxOouG724J1R6DHhgESOYpeWSr5g6Qi4#.Yzon oy8RQAM.mailto.

https://www.abc.net.au/news/2022-10-03/australia-s-largest-weapons-fair-opens/101497972

<sup>&</sup>lt;sup>88</sup> It is speculated that some changes may also be attributable, at least in part, to inadequacies identified in the immediately preceding section, the Department not being the "smart buyer" that the FPR report called for it to become (again, see paragraphs 16 and 17 above).

- the bidders, for whom the process can be time-consuming and expensive, depending upon the scale of the project concerned; and
- > their workforces, with employment decisions affected.
- 90. The Future Submarine Industry Skills Plan, published in March 2013,<sup>89</sup> provided one example of the destabilisation such indecision can have on a workforce:

The expert industry panel agreed unanimously that when people leave the shipbuilding industry as it declines, they rarely return. Instead they find similarly challenging but secure employment in other sectors, and stay there. This is not new – it has been evident for many shipbuilding cycles over the past decades. What it does mean is that in the past each new cycle is built upon a largely inexperienced workforce and this results in problems, particularly low productivity.<sup>90</sup>

- 91. It can also be destabilising when work performed in-house by DoD is to be outsourced or an existing contract is put out for re-tender.<sup>91</sup>
- 92. Paragraph 20 above referred to the progressive outsourcing through time of government engineering, including defence production and sustainment. One such outsourcing concerned what was once known as the Defence Integrated Distribution System (**DIDS**), under which both of the following functions were performed in-house by the Department:
  - warehousing and distribution; and
  - > Army materiel maintenance.<sup>92</sup>
- 93. Under what was originally known as the DIDS contract, the above two functions as performed in the Albury Wodonga Military Area were outsourced in or around 1998. That contract was won by Tenix Defence/Systems Pty Ltd. The remaining DIDS work nationally was outsourced under a separate contract in 2004. It was originally won by TenixToll Defence Logistics, that company being a partnership between two otherwise separate companies, Tenix and Toll. BAE Systems Australia bought the defence business of Tenix Defence in mid-2008, but its acquisition of TenixToll was complicated by the partnership of two companies and could not be completed until

<sup>&</sup>lt;sup>89</sup> <u>https://www.sadig.org.au/imagesDB/wysiwyg/FutureSubmarineIndustrySkillsPlanFSISP\_1.pdf</u>

<sup>&</sup>lt;sup>90</sup> Ibid, 126.

<sup>&</sup>lt;sup>91</sup> Without necessarily benefitting the Department as intended – see paragraph 14 above.

<sup>&</sup>lt;sup>92</sup> For simplicity, these terms will be used consistently below even though their descriptions/tiles changed through time, e.g. the DIDS contract at one stage became the land materiel maintenance contract and at another the Defence maintenance and support services contract.

early 2009. To this point, the workforces employed under the two DIDS contracts each had their own enterprise agreement.

- 94. In 2013, the Department separated the two functions performed under the DIDS contracts and put each out for separate tender. Warehousing and distribution was won by Linfox and Army materiel maintenance by Transfield Services (Australia) Pty Ltd, which later changed its name to Broadspectrum.
- 95. Employees of the Department were not guaranteed work with the successful contactor when their work was originally outsourced. They had to apply for positions with that contractor and hope that they would be successful. Similarly, when the contract transferred from BAE Systems to Transfield Services. In neither case when the outsourcing or re-tendering process commenced could the workforce be confident about what their future terms and conditions of employment would be relative to their then current employment. (These uncertainties did not exist when BAE Systems acquired Tenix/Toll, both the workforces and their enterprise agreements continuing as they had prior to the acquisition.)
- 96. Ventia acquired Broadspectrum in June 2020.
- 97. The successor to the Army materiel maintenance contract is currently out for re-tender, with the new contract expected to "go live" in December 2023.
- 98. For a former DoD employee who transferred with the DIDS contract to TenixToll 18 years ago and has been employed by the various successful tenderers since, it has been an uncertain time. Now that employee confronts another potential change.
- 99. It should be borne in mind here that the affected employees are tradespeople and the like who work on specialised military equipment. They are of the very character of the diesel mechanic that Minister Keogh is said to have identified as "ripe for the picking" and likely to be offered a "tonne of money" in the current labour market.<sup>93</sup> You would think that secure employment and/or higher pay would be attractive to them.

<sup>&</sup>lt;sup>93</sup> See the quote attributed to him in paragraph 43 above.

100. The previous two paragraphs are a variation on the theme identified by the expert industry panel, as cited in paragraph 90 above.

## The Workforce of a Major Engineering Project

- 101. As addressed above, much work previously undertaken in-house by Commonwealth departments or agencies has, one way or another, been transferred to private industry.
- 102. It is worth reflecting on the character of some of that work and the workforces required to plan and undertake it. One significant example is the production or sustainment of a particular class of naval vessels.

A typical shipbuilding project will employ thousands of people, including engineers and draftsmen who design the vessel and its systems, shipyard production engineers who break down the design in stepby-step work packs for trades people who use them to turn steel, pipes and electrical cables into a ship, the technicians who install its combat system and communications suite, computers and equipment, and the engineers and technicians who test the vessel once it is complete. There is the shipyard team who keep production running, schedulers, warehouse staff, the finance people, and the administrators. Throughout the project, it is the system engineers who are tasked with making sure the ship meets the customer's requirements. There are many more who work in the supply chain that provides materials, equipment and services to the project.<sup>94</sup>

...

To meet the challenge of the future submarine and other naval projects, shipyard workforces will need to evolve to achieve **the right balance of skill groups, strengthen skills and most importantly grow experience**.<sup>95</sup> (Bolding added)

103. These comments echo those made by Skills Australia in its report on Australia's defence supply

capabilities, in which it wrote:

Organisations competing for Defence procurement contracts require **a balance of professional, trade, technical and managerial skills, and an ongoing commitment to skills development and upskilling** to ensure the currency of these skills.<sup>96</sup> (Bolding added)

104. And yet the Australian public receives reports such as those cited at paragraphs 22 to

24 inclusive above.

<sup>&</sup>lt;sup>94</sup> n89 above, 19.

<sup>&</sup>lt;sup>95</sup> Ibid, (xii).

<sup>&</sup>lt;sup>96</sup> n59 above, 14.

105. As the AMWU has written elsewhere (with one footnote deleted):

Modern defence materiel is sophisticated (and the consequences of it failing can be catastrophic).<sup>97</sup> It is commonly manufactured to fine tolerances. To undertake routine maintenance on it requires a relatively high level of skill. To commission or troubleshoot on it requires a higher level of skill again plus relevant experience, and to innovate requires very high levels of skill plus insight and inventiveness.

...

It is of significance that such work ... is not so much performed by individuals as (more commonly) by teams whose members collaborate, these teams exemplifying the adage that the whole is greater than the sum of its parts. These teams may be multi-disciplinary and may comprise members trained to different levels of the Australian Qualifications Framework (AQF), e.g. those with degrees attained through university and those with Advanced Diplomas attained through TAFE. Experience and the opportunity for practised employees to mentor recruits are important in these circumstances.

...

Formal qualifications are important, but they should not be all-important. They on their own do not guarantee competence. What an individual employee has been taught should be of less concern than whether or not s/he can apply those lessons such as to be productive within a team.

106. As seen above in this section, the Future Submarine Skills Plan advocated for skills to be strengthened and Skills Australia for (skills development and) upskilling. It must be a disappointment to them that the Productivity Commission found in 2020 that whilst 85.1% of people engage with the VET system "for employment related reasons" only 17.8% are "employed at a higher skill level after training".<sup>98</sup>

# Private Defence Industry

107. Paragraph 31 above noted that there are many hundreds of employers of different character operating within private defence industry. It may be unwise to generalise about such a diverse group. For example, paragraph 34 made the point that the different employers have adopted disparate approaches to the setting of pay and conditions of employment. Nevertheless, some high-level observations will be made below, some of which have already been seen to apply *mutatis mutandis* to the DoD.<sup>99</sup>

 <sup>&</sup>lt;sup>97</sup> A submarine or combat aircraft is one obvious example; a modern missile or torpedo would be another.
 <sup>98</sup> <u>https://www.pc.gov.au/ongoing/report-on-government-services/2020/child-care-education-and-training/vocational-education-and-training</u> (Word version), 5.1-5.2 and 5.22
 <sup>98</sup> Sea and services and the services of the se

<sup>&</sup>lt;sup>99</sup> See paragraph 48 above.

- 108. The quote at paragraph 24 above indicates that employers value<sup>100</sup> qualifications <u>and</u> experience. On the other hand, private employers are motivated to seek to maximise their profits and the pricing of their work is a significant consideration in them competing for defence contracts. There must be a temptation for them to avoid "discretionary" costs, such that if they are not required to contribute to the training of the next generation of the workforce they won't.
- 109. Additionally, current enterprise bargaining laws effectively prohibit negotiations beyond "the enterprise", which may be defined as a single national employer (but often enough is not).<sup>101</sup> These laws pre-empt a sectoral approach to skills formation. In their effect, they promote competition between the rivals for defence contracts rather than cooperation.
- 110. Such competition also finds expression within bargaining over wages and conditions of employment within the private defence industry, some employers (to the extent that they engage in bargaining at all)<sup>102</sup> using it to resist what they might characterise as a different form of the "discretionary" costs adverted to in paragraph 108 above.

... the optimism that attended the Fair Work Act's introduction in 2009 was "misplaced", with workers in the years since unable to effectively exercise power when bargaining.

Collective bargaining coverage is in decline; real wages are stagnating; businesses' share of profit is increasing, and the statutory tools to increase bargaining coverage have withered on the vine.  $^{103}$ 

111. Paragraph 94 above advised that in 2013 the (then) Transfield Services (later renamed Broadspectrum) won the re-tender to perform the Army materiel maintenance component of the former DIDS contracts. Subsequent developments illustrate some of the difficulties that may arise from enterprise bargaining.<sup>104</sup>

<sup>&</sup>lt;sup>100</sup> "Value" might be the wrong word here, in light of what follows in this paragraph and the next two.
<sup>101</sup> For example, Thales Australia has six enterprise agreements, two of which are site specific, one of which covers two integrated sites, one of which is particular to one domain in one State, another of which applies to a single "business" (being explosive ordnance depots) nationally and the last of which is national and applicable to those not covered by one of the other five agreements.

 $<sup>^{102}</sup>$  See the quote attributed to Professor Shae McCrystal at paragraph 72 above.

<sup>&</sup>lt;sup>103</sup> n71 above, in which these quotes are attributed to Professor Shae McCrystal. See also n33 above.

<sup>&</sup>lt;sup>104</sup> These are not offered as more than an illustration, each set of negotiations being set in a context particular to it and having its own dynamics.

- 112. The AMWU was advised by Joint Logistics Command in a written briefing of March 2013 that the successful contractor would be required "to comply with the Australian Government's Fair Work Principles" and "in conducting [its business] … meet public expectations of fair and reasonable workplace practices". After some relatively straightforward negotiations, a greenfields enterprise agreement was reached with Transfield Services and signed by the AMWU.<sup>105</sup>
- 113. That agreement nominally expired on 30<sup>th</sup> September, 2016, with negotiations to replace it to commence "at least four months" beforehand. During its nominal life, there had been a change of federal government – and an apparent change in the company's approach to bargaining with its workforce.
- 114. Negotiations to replace the greenfields agreement commenced on 1<sup>st</sup> June, 2016, but the Fair Work Commission (FWC) did not approve the replacement until 1<sup>st</sup> October, 2019, and only after a sixth vote of the workforce. Between those 40 months:
  - the FWC rejected the fifth version of the proposed replacement agreement because the company had not met the prescriptions of the Fair Work Act;
  - the company refused to bargain further, despite a recommendation from the FWC that it do so; this refusal was maintained from March 2018 to August 2019; and
  - protected industrial action (PIA) was taken by the workforce from October 2016, principally but not exclusively in Victoria, until September 2019, only being interrupted whilst awaiting decisions of the FWC on the fifth version of the proposed replacement agreement and on an appeal; in total, PIA had been taken in 12 separate quarters, six of them full quarters.

115. The AMWU did not sign the new agreement.

<sup>&</sup>lt;sup>105</sup> <u>https://www.fwc.gov.au/document-</u>

search/view/aHR0cHM6Ly9zYXNyY2RhdGFwcmRhdWVhYS5ibG9iLmNvcmUud2luZG93cy5uZXQvZW50ZXJwcmL zZWFncmVlbWVudHMvMjAxMy82L2FINDAxNjk1LnBkZg2/3/ec0fd848-a008-4ab1-8eedc0bb3b9c1acb/Transfield%24%24Services%24%24Greenfields%24%24LMM

- 116. The union does not know what Ventia's current separation rates are amongst its maintenance employees working under the successor to the DIDS contract. However, it does know that a relatively high number of its members who had worked under that contract have left the company, many having been embittered by the bargaining experience and/or accepting higher-paying work elsewhere. The ability of the company to replace them must be problematic given current competition for the skills concerned, the need for the replacements to have security clearances and in some cases the relative isolation of the work sites concerned.
- 117. The pool of competent labour available to defence private industry appears to have been unnecessarily restricted by a failure by some to recognise that a large measure of the work of the broad occupational groupings (e.g. tradespeople, technicians and professionals) overlaps rather than abuts. Put another way, there is an incomplete appreciation of the observations made by Skills Australia, as cited in paragraph 54 above. This inhibits achievement of the "right balance of skills groups" called for in the Future Submarine Industry Skills Plan.
- 118. Paragraph 108 above speculated about the temptation for employers to avoid where possible the discretionary costs associated with the provision of training. Such speculation is lent credence by the following observation made by international consultants Ernst and Young:

[t]here is no evidence that Defence, DMO and Defence industry work collectively to build workforce capability. However, there is a strong reliance on lateral recruitment across each of the sectors...<sup>106</sup>

119. The AMWU believes that the phrase "lateral recruitment" was a euphemism for one employer (inclusive of the Commonwealth itself) poaching from the workforce of another such as to relieve itself of an obligation to train. There is no future in such an approach within an industry with an extended supply chain, one which demands a high level of skills of its workforce. It is a form of cannibalism that will eventually consume itself. Take the overly simplified example of a prime contractor that successfully poaches from a firm within its supply chain. Without adding to the skill stock within the industry,

<sup>&</sup>lt;sup>106</sup> Ernst and Young, Internal Audit of Professionalisation of Engineers (2013/14 No. 6) Final Report, Defence Materiel Organisation, Canberra, 23 June 2014, 3.

it may have fractured a critical team within the (losing) firm, ultimately compromising that firm's ability to meet the prime contractor's own supply needs. Now imagine that process regularly replicated within an industry of hundreds of firms of various sizes and occupational mixes.

- 120. Reliance on lateral recruitment was always lazy (but cheaper than the alternative, at least in the short term). If it was ever successful, it would have been for individual employers rather than the defence sector as a whole. It is failing now, given that too many production, trade and technical employees feel insecure, under-valued and under-paid in their current employment.
- 121. The effects of the practices identified in this section (and that above headed "The Department of Defence") are problematic in a country with a resources sector that cycles between booms and busts and is willing to pay (very) high wages to attract the skills it needs during its booms. It is the experience of the AMWU that the attractiveness of those wages has been too much to resist for some working in the defence industries,<sup>107</sup> the employees concerned holding skills commonly beyond those necessary to win them work in the resources sector.
- 122. These effects are inconsistent with the demands imposed by the longevity of a number of defence projects, some measurable in decades, which require the consistent availability of workforces of particularly high skill and experience.<sup>108</sup>
- 123. A crisis, such as when a nation is involved in international conflict, demands a coordinated response. However, Australia's private defence industry is run on a contrary model, which encourages the various firms to **compete** with each other (for their share of a massive budget<sup>109</sup> and a workforce of limited size with the skills and experience required). There must be doubts about the country's ability to effect a timely shift from competition to the cooperation required should the need arise.

<sup>&</sup>lt;sup>107</sup> See e.g. paragraph 43 above.

<sup>&</sup>lt;sup>108</sup> Often with a requirement for security clearances which take time to obtain. The fact that some potential employees cannot obtain such clearances further narrows the pool of available labour. Efforts need to be taken to keep employee turnover in these projects as low as practicable.

<sup>&</sup>lt;sup>109</sup> Currently in the order of \$270 billion over 10 years on the acquisition and sustainment of defence materiel - see the 2020 Defence Strategic Update at 5.4. Not all of the firms concerned manufacture predominantly – let alone exclusively - in Australia.

"In the case of war, mobilisation will usually focus on enhancing the nation's defence forces including increasing their capabilities, size and ability to generate higher activity levels. **The additional workforce**, money and material needed for these changes to the armed forces **generally comes from the civil sector of society**."

"In mobilisation, the defence and civil sector are both important. Neglect of either can imperil the other."<sup>110</sup> (Bolding added)

# **Recommendations**<sup>111</sup>

# <u>General</u>

- Regard the combined workforces of the private and public sector workforces engaged in engineering and science as a "defence capability" and assign them priority for investment, treating them as a resource to be nurtured instead of a cost to be minimised.
- Delineate and clearly document the respective roles of the DoD and private defence industry.
- Recognise that major engineering (and science) programs are undertaken by blended teams of different occupational levels that form and re-form as the programs progress.
- Recognise that a number of classification levels can be competently occupied by employees trained through either VET or university, this increasing the scope of the potential labour force.
- Support reinvestment in publicly provided VET, with the system's primary purpose being the production of skilled and adaptable workers productively employed in occupations related to their training.
- Facilitate movement/promotion within the one employer (rather than relying heavily on movement at level between different employers, i.e. poaching); give greater attention to and provide more opportunities for career progression.<sup>112</sup>

 <sup>110</sup> https://www.australiandefence.com.au/news/designing-australia-s-next-defence 

 mobilisation?utm
 medium=email&utm
 campaign=ADM%20Premium%20 

 %2020%20Oct%202022&utm
 content=ADM%20Premium%20 

<sup>&</sup>lt;u>%2020%20Oct%202022+CID</u> 746bb7af13c8f1879dc4ed7e61eb679f&utm\_source=Email%20marketing%20soft ware&utm\_term=Designing%20Australias%20next%20defence%20mobilisation

<sup>&</sup>lt;sup>111</sup> See also the 11 recommendations in the accompanying booklet entitled "Rebuilding Sovereign Capabilities in Australia's Defence Industry" (at the first attachment).

<sup>&</sup>lt;sup>112</sup> Drawing e.g. on MA10's C structure and associated rules of progression. See paragraphs 31 and 32 above.

- Place a higher premium than at present on experience and competence (rather than on qualifications alone).
- Streamline to the extent practicable consistent with the national interest the provision of security clearances.
- Seek to capture the skills of ex-ADF members with engineering skills as those members leave the Services.
- Support changes in industrial relations legislation that will restore balance between negotiation and managerial prerogative.

## <u>DoD</u>

- Establish the DoD as "a smart buyer", inclusive of skills in planning, coordination and contract design and management.
- Broaden the pool of competent labour by reinvigorating the technical workforce available to support the professional workforce.
- Increase the intakes of those undertaking entry-level training within engineering and science, inclusive of the trade and technical workforces.
- Specify as the norm for employees within engineering and science rates of pay consistent with – at a minimum – market rates; this may require such employees to the remunerated differently to those within administration and the human sciences.
- Moderate the APS wages policy such as to encourage genuine enterprise bargaining, with the DoD given more freedom to negotiate arrangements that suit its requirements as a Department with a large engineering and science component.

# Private Industry

The points which follow recognise that DoD has market power as a monopsony and can impose conditions on those bidding for its contracts. They also recognise the different pressures that fall on (1) small to medium enterprises as opposed to prime contractors and (2) indigenous firms as opposed to multinational corporations and the different interactions that each are likely to have with the Department.

- Foster a sectoral approach within a defence hub or supply chain on issues such as: wages and conditions; and the attraction, development and retention of the required workforces and their skills; the aim should be to level the field and thus reduce the incentive to "race to the bottom" and/or poach.
- Require the successful bidders for individual contracts made directly with the DoD to
  reserve a specified percentage of the contract's total cost for the training of Australians
  (particularly at entry level), with the DoD holding the successful bidder to account to
  expend the reserve as intended; an alternative would be a training levy on successful
  contractors<sup>113</sup> to be used to fund a form of group training scheme (which could potentially
  extend to include the ADF).
- Require bidders to commit to maintain "fair and reasonable workplace practices" and to the extent practicable ensure that a successful bidder honours its commitment.<sup>114</sup>
- Recognise that the often high costs of preparing bids without guarantee of a return on expenditure<sup>115</sup> can prove prohibitive for local bidders; provide them with a level of assistance, particularly in relation to the cyber security and/or quality systems aspects of the contracts concerned.

# Postscript

Elsewhere,<sup>116</sup> the Australian Shipbuilding Federation of Unions has proposed that:

The existing Naval Shipbuilding College should be redeveloped and repurposed into a Heavy Engineering Skills Analysis, Workforce Planning and Development Centre charged with analysing the workforce development and planning needs of the projects and supply chains that will service the projects.

The result would be state-of-the-art facilities capable of designing and integrating properly designed, nationally recognised qualifications, skills pathways and related training products to build the skilled heavy engineering trade, technical and engineering workers the projects and their supply chains will require.<sup>117</sup>

<sup>&</sup>lt;sup>113</sup> Including those off-shore.

<sup>&</sup>lt;sup>114</sup> See e.g. paragraph 112 above.

<sup>&</sup>lt;sup>115</sup> Such absence of guarantee being appropriate.

<sup>&</sup>lt;sup>116</sup>https://assets.nationbuilder.com/amwu/pages/361/attachments/original/1666848326/ASFU\_HeavyEngine\_ering\_webver.pdf?1666848326

<sup>&</sup>lt;sup>117</sup> Ibid, 4.

Whilst that proposal was specific to shipbuilding, its sentiments are consistent with a number of the recommendations made in this section. Notably it recognises occupational diversity within an engineering workforce and promotes skills pathways. It also recognises supply chains. If it doesn't shout for workforce planning and development, this submission does.