

ISSUE 2 OF 2021

AIDN NATIONAL **NEWS LETTER** CONNECT WITH US!

Letter to members from the AIDN National CEO

Hello to all,

I am pleased to be writing to you for this winter edition of the AIDN National Newsletter. I hope that this finds you all well and hopefully doing well in your businesses.

We of course find ourselves still learning to work with the COVID-19 pandemic, and our thoughts go out to our friends and colleagues in Victoria that find themselves once again locked down.

Matt Keogh MP, the Opposition Spokesperson for Defence Industry has been able to contribute to this newsletter, which we of course thank him for.

The Hon Melissa Price MP, Minister for Defence Industry is looking forward to contributing to the next newsletter.

This newsletter follows closely on from the successful Land Forces conference, which many of you were able to attend. I unfortunately found myself the victim of a close contact from a Victorian friend, requiring me to get another COVID test and self-isolate for a couple of days which was unfortunate as I was looking forward to the opportunity to catch up with many of you.

As I have mentioned previously AIDN is in the final stages of formalising its shift to a national entity, with the target date of 01 July remaining on track. I have separately written an article for this newsletter on what this means for the organisation and more importantly you as our membership.

AIDN remains fully committed to driving the discussion and influencing the outcomes to ensure that Australian companies and in particular our vitally important SME community are able to compete for and secure work on all Defence programs.

The Morrison Government is investing staggeringly large amounts of money into the Defence sector and the Government should be applauded for doing this. The Morrison Government has repeatedly stated that it has a requirement to ensure



the creation of a sovereign industrial base, indeed Minister Price has repeatedly gone on the public record on this issue. AIDN of course supports this 100%.

The reality now is that Australian Industry needs to understand what this sovereignty looks like, how will Governments policy ensure that this happens and what does success actually look like.

It is not yet possible to answer the question of what success looks like, we collectively need to get to the point where there is strategic plan that takes Australia from where it is today – a country where the majority of defence dollars are spent with the large multinational foreign owned and controlled defence organisations – to where Australian controlled companies are undertaking large percentages of the defence work in-country with support from the foreign entities.

Recently AIDN posted an opinion piece on the need to properly define what an Australian company is, we will shortly be posting a follow up to this piece to further generate debate on this topic. Without a considered definition then we remain locked into the reality of overseas suppliers claiming that they are Australian companies because they are here and employ Australians, yet there is no control here and that makes Australia vulnerable in these tense geopolitical times.

Continued on page 3



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Continued from page 1

The vast majority of countries have clear policies and definitions on these matters. Ultimately the requirement gets down to control. Where is control exercised, where are decisions made, where is the IP developed, who owns the IP and if the IP isn't owned domestically what rights are there to IP usage, to name but a few of the considerations.

We need to ask the question of Government as to why so much of the Australian Defence dollar is being used to effectively mobilise the industrial base of foreign governments.

There can be little doubt that the events of 2020 and 2021 have demonstrated the need for self-reliance, we cannot simply assume that the foreign supply chains will be able to prioritise Australia in complex times, quite rightly they will look to support their domestic market in the first instance and then international markets, and we cannot guarantee where Australia sits in that supply line.

The argument that Australian industry is not up to the required standard and therefore unable to supply into these programs simply is not true. Australia's Defence Industry has repeatedly been able to supply products of quality and proves to be an innovative industry. Recently at Senate Estimates the Managing Director of ASC stated that ASC is achieving more than 90% Australian Industry involvement for the supply chain for Collins Class submarines, given this fact why are we seeing resistance to including Australian suppliers into the major defence programs? Australia has world leading industry in a number of areas, all of which could supply to the Defence market. The need to design Australian industry into these programs from the outset should be a fundamental requirement.

The need to qualify Australia suppliers for this work will always be a requirement, whether that qualification it is done today or at some mythical point in the future does not change that fact. So why then are we not insisting that Australian companies are being qualified upfront, rather than in the future when the ability to displace an incumbent supplier is highly unlikely, due to the amount of risk associated with changing the supply chain downstream, it seems incomprehensible that Defence believes this to be a reasonable strategy. If there is any investment required for suppliers for equipment into these programs then this investment needs to be undertaken here in Australia, not in the supply chain of overseas company.

The reality of the matter is that we have the time to undertake this type of development and investment and the strategic benefit to the country in doing this will have a multiplying effect; create national sovereignty and increase the nationals strategic resilience.

So we at AIDN will continue to lead the debate on these matters and we will continue to advocate for Australian Industry in order to ensure that our industry receives the greatest proportion of work in-country, that the Australian taxpayer gets a fair return on their investment and ultimately that the Governments requirement of a sovereign Australian Industrial base is achieved.



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AIDN National Membership

Recently you may have heard the announcement at Land Forces or seen a post on LinkedIn around the fact that AIDN officially becomes a single national organisation 1 July this year, offering a National membership.

Reasonable questions might be, why and what does this actually mean?

By now most of you will be familiar with the fact that AIDN has been moving towards this outcome for some time. It has been an interesting journey and one that has deliberately been undertaken at a pace so that each of the State and Territory Chapters could become comfortable with the final outcomes.

Whenever an organisation undertakes a nationalisation process there are numerous concerns and issues that arise, the one fundamental issue is – how does this benefit me

And that is a very fair question. Hopefully I can articulate a fair response.

AIDN has had a long history since it commenced some 27 years ago in NSW, creating Chapters in each State and Territory in quick succession.

The charter of AIDN was primarily to create opportunities for Australian companies, in particular the SME community, to be represented as a collective in order to ensure that Australian companies at least had the ability to compete for Defence contracts on a level playing field. The approach very quickly became more of a state or territory-based one and lacked a coordinated plan, it is important to remember that all Defence contracting is a Federal matter, not a state or territory one.

This shortcoming had been recognised within the AIDN organisation, however the ability to overcome this issue was difficult, primarily due to the fact that the organisation was working under a federated model as opposed to a national one.

AIDN committed to overcoming this shortcoming in order to establish itself as the only national association for Defence Industry, and this journey to being a single national entity is about to conclude.

In real terms what does being a national organisation mean?

From an administrative perspective this means that there is a centralised membership data base, all AIDN employees are under one employer, all finances are centrally managed, there is a nationally agreed budget and management of that budget ensures that each state and territory can focus on delivering member services without the administrative burden.

The national organisation fundamentally frees up each committee to focus on members and delivering benefit to you and not on the non-value adding committee processes of managing funding. AIDN National will undertake that on behalf of the committees.

By removing the mundane activities from the committees it is expected that there will be an increased degree of interaction within each state and territory such as more member networking events and member services. It is also expected that the committees will be able to focus their time on providing strategic guidance in order to ensure that appropriate policy can be developed under a national model. Each of the state and territory committees have an obligation to work closely with the local membership base in order to ensure that local issues are understood at the national level. The committees will be interacting on a regular basis with the national organisation to ensure that all issues are considered.

At the national level, the single voice advocacy allows for far greater influence at the political and Departmental level. The voice of an AIDN National representing 1000's of members drives significantly more robust outcomes than a state or territory that represents a 100 members. National advocacy lifts the organisation out of state-based politics into the broad national debate. A positive national result ultimately means success for each state and territory.

A coordinated approach from the national level ensures that all issues can be considered, it is difficult at the single state or territory level to have issues raised to the strategic level, AIDN National provides this ability.

It is equally important that there is a coordinated voice to the Department and to the Defence Prime Contractors, there is a mutually beneficial effect by having a one path entry point for matters of Australian Industry.

A national organisation also has the ability to speak in the public arena with authority and with one voice.

A great deal of effort has been undertaken to ensure that the balance of the state and territory rights and national approach could be achieved, the creation of the national entity will not disadvantage the previous chapters and this was a fundamental requirement for moving forward.



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OpEd from Matt Keogh



The geopolitical situation Australia now confronts is vastly different to that of just 5 years ago.

The Strategic Update acknowledges we no longer have the 10-year lead time

previously expected before an outbreak in conflict. We keep hearing the rhetoric of "drums of war" beating, and of escalating tensions.

This rhetoric is being scaled up – but the same can't be said for standing up our defence industry.

In the recent Senate Estimates we heard that the Federal Government are considering a confidential "Plan b" option for the Future Submarine program.

While unwilling to share just what that option might be – the shrouding of the comment in confidentiality and the veil of national security confirms one thing – the government are looking at one, and clearly have concerns about the current program.

Under the current timelines there won't be a single submarine from the future submarine program in the water until 2035.

Meanwhile, it's expected there will be as many as 300 foreign submarines in our region by that same year.

There's also still been no decision about the scope or timing of life of type extension required for our current Collins Class submarines.

And this is just one of many capabilities experiencing delays and cost overruns. Australia is looking like it will be unprepared and outnumbered.

At the same time, this Government simply hasn't lived up to its rhetoric of growing Australia's sovereign defence industry capabilities, despite evidence of how vulnerable we are to supply chain shocks, demonstrated by the COVID-19 pandemic.

How can we assume we won't have the same issues if we found ourselves in conflict with a peer?

The Morrison Government tries to talk tough on Defence but failing in its delivery of the necessary sovereign capability that Australia needs to support the work of Defence.

We need to stand up our defence industry on its own two feet.

Recently, I attended the Land Forces exposition in Brisbane, a three-day event showcasing the best of Australian land capability. There are so many fantastic small and medium sized companies here in Australia doing exceptionally innovative work.

But I kept hearing the same comments time and time again: futuristic and innovative capabilities being developed locally with the support of the US or UK Defence forces, who recognise the advantage they can give, but are hardly getting a look in from our ADF and Defence Department.

And when they do cut through, it's after jumping through hoop, after hoop. There is no clarity or sufficient support for prospective Defence industry businesses to find the right people to talk to about progressing and supplying their capability.

How on earth is it reasonable or appropriate for the Department of Defence to NOT support our local industry or for primes taking on Australian defence work to not be contractually obligated in a transparent way to support Australian Industry in any (and every) way they can?

"Best intentions" clauses are nothing more than lip service.

I can't tell you the number of conversations I had throughout the Land Forces event, hearing the same thing over and over - It's so much easier to get into the international supply chain than it is to get work supporting our own forces here at home.

I spoke with one company who spent four years going through the tendering process for a major Australian defence project with a Prime, spending what they say was hundreds of thousands of dollars attending meetings, making submissions and developing a perfect product, only to be pipped at the post by a company from the same home country as the Prime with no rationale as to "why".

I met another group of Australian SMEs who have worked together to develop a vehicle, with each company contributing to a specialised component to create something truly innovative. The British Defence Force are knocking down their door for the platform.... But the ADF are yet to show real interest.

We need to be backing in and scaling up our local industries to do local work, after all, COVID has proven that we can't rely on other countries to do it for us.

At least it's led to a burgeoning local consulting industry to support these businesses - but I don't think that's the sovereign capability we were really chasing in Defence!

It's up to the Australian Department of Defence – the Australian Government, to take on the risk, to grow and support our defence industries here at home. That means not just identifying our national strategic priorities from across defence but also understanding the existing industry eco system, identifying the gaps and working to get them filled locally, whether by supporting new capability or growing scale or variation in existing capability.

We must also ensure this isn't siloed by domain but instead identifying priorities and gaps across our entire defence and national security interests and applying resources accordingly, rather than each force pursuing its own individual agendas.

We should have overarching strategic goals and ensure all elements of defence are collaborating to reduce a common threat.

You see there are two sides of this issue. We are developing technology that isn't appropriate to current and expected future threats and we are lacking agility to bring in capabilities as rapidly as those threats evolve.

What does that mean in practice?

The Government should be investing in companies in the early stages so they're developing the right capabilities, that will have a real-world use, a trajectory towards commercialisation and most significantly, contribute to our strategic imperative in response to threats. These must also be joined up to capability requirements with real potential procurement opportunities, not just left dangling after a grant expires with nowhere to go.

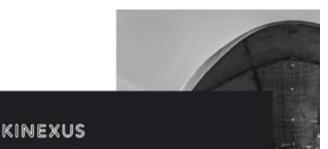
If gaps are identified and we don't have those capabilities, it's incumbent on Government to work with industry to grow and develop those.

Land Forces proves we have the ability and capability, the will and the human know-how.

Our Government needs to support our Australian defence industry businesses to grow and thrive, in our national interest.



Defence Industry Hiring Intentions and Workforce Report



DEFENCE INDUSTRY

HIRING INTENTIONS AND WORKFORCE REPORT

April 2021



While COVID-19 re-defined the Australian business and social landscape, the defence industry's unprecedented peace-time growth trajectory has remained undiminished.

Under the Federal Government's \$270 billion dollar defence spend, defence industry companies are being compelled to bolster their workforces - and rapidly.

Kinexus' Hiring Intentions and Workforce Report reveals the overall defence industry workforce is expected to grow by 10.8 per cent in 2021 alone, with around 3,800 new positions created.

As always, the Hiring Intentions and Workforce Report shows the planned location, sector and volume of hiring activity for newly created positions in defence industry material and technology employers over the current year.

However, for the first time, the 2021 report also shows the populations and geographic distribution of five key skill sets that are in the highest demand nationally.

Government Defence Spending

The Federal Government has a major focus on the recapitalisation of the Australian Defence Force's material and technology systems, albeit at varying degrees at state level.

The significant enhancements amid the current shifting geopolitical dynamics, mean competition for skilled workers in the defence industry is intensifying.

Looking back, despite the upheaval unleashed by COVID-19, most primes managed to achieve their 2020 hiring targets, despite anecdotal evidence indicating many companies scaled back or deferred hiring plans. Strong demand is being driven by acquisition and sustainment projects, with the majority of hiring coming from primes, above-the-line consultancies and, to a lesser extent, SMEs.

Employers in the material and technology acquisition and sustainment projects currently employ around 35,000 workers, a figure that will need to increase if worker requirements are to be met.

It's a demand the defence industry workforce pool cannot meet alone, and as a result many employers will need to look towards adjacent industries to secure the required workers.

Hiring Intentions by Sector

The Hiring Intentions and Workforce Report indicates the naval sector will remain the largest hirer at 41 per cent of the total workforce, with a predicted growth of 1,574 roles in 2021.

Naval acquisition projects are the key driver of hiring activity for prime contractors, and increasingly SMEs, whose growth is accredited to the establishment of supply chains.

The ICT workforce, making up 27 per cent of the total workforce, will also experience significant growth in 2021, propelled by the Federal Government's major upgrades to ICT defence infrastructure.

Figure 1: Distribution of expected hiring activity by sector

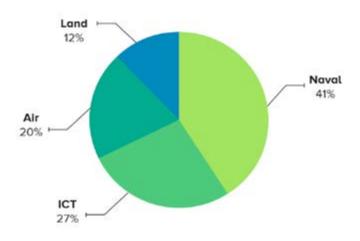


Figure 1 shows the distribution of expected defence industry hiring for new positions in 2021 by sector.

Table 1: Hiring intentions over time by sector

YEAR	AERO	ICT	LAND	NAVAL	TOTAL
2019	335	415	465	1,570	2,785
2020	820	640	504	1,480	3,534
2021	743	1,047	449	1,574	3,813

Table 1 shows the distribution of expected defence industry hiring for new positions from 2019 to 2021 by sector.

Hiring Intentions by State

When breaking down the Hiring Intentions and Workforce Report by state, ACT dominates growth projections, making up 28 per cent of all new hires in 2021.That's being driven by the Federal Government's ICT systems upgrade, previously mentioned.

Further south, Victoria will see an increase from 10 per cent to 16 per cent of total new hires, underpinned by naval and land systems acquisition and sustainment projects.

Inversely, NSW is expected to see hiring drop from 24 per cent of all hires in 2020, to nine per cent this year. That's largely down to recruitment activity in naval and aerospace sustainment work tapering off over the last two years.

Figure 2: Distribution of expected hiring by state

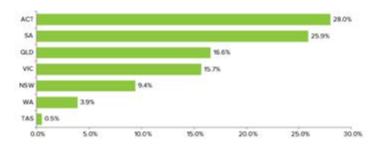


Figure 2 represents the distribution of expected defence industry hiring for new positions in 2021 by state as a percentage of total hiring.

Hiring Intentions by Skill Set

The defence industry must embrace innovative approaches if it's to meet the required workforce growth. That includes the efficient utilisation of existing defence industry workers, but also attracting and integrating workers with relevant skills and experience from adjacent industries.

To provide greater insight into the challenge ahead, Kinexus utilised LinkedIn data to map the number of workers within the defence sector and adjacent industries; with five of the most sought after defence sector skill sets. Our experience tells us that around 60% of the workers with these skill sets have profiles on LinkedIn.

The most sought after defence sector skill sets nationally are; cyber, ILS, project and program management, systems engineering and software engineering.

The Hiring Intentions and Workforce Report shows project and program management professionals are by far the most populous skill set, with close to 60,000 professionals across the nation.

This contrasts to systems engineers at the other end of the spectrum, who number 5,600 nationally.

At state level, NSW and Victoria account for approximately 60 per cent of the total surveyed workforce across these five skill sets. Meanwhile, Western Australia holds a higher than average number of ILS professionals, although most are engaged in the state's sizable mining and utilities industries.

Figure 3: Distribution of professionals with ILS skills by state



Figure 3 shows the distribution of ILS skill profiles on LinkedIn

Other industries including aerospace, telecoms and government administration employ significant numbers of the software engineers skill set.

While IT & services and software industries are ranked highly in the employment of software engineers, the defence industry takes third spot in the Northern Territory and South Australia.

Meanwhile, systems engineers, which number just 5,600 nationally, are employed across a wide range of industries.

The defence industry is a major employer, and in the top spot in the ACT, Northern Territory, South Australia and Victoria.

Industries competing for systems engineer workers include industrial automation, utilities, aerospace and telecoms.

Figure 4: Distribution of systems engineering skills by state



Figure 4 shows the distribution of systems engineer professional profiles on LinkedIn

It's clear the competition for hiring and retaining top talent is set to intensify for companies across the defence industry as the government continues to ramp up the nation's military capabilities amid shifting geo-political dynamics.

For more insight into hiring intentions and workforce trends <u>download the full report</u>, or contact us to talk through the implications on your company's recruitment and workforce planning needs.

KNEXUS MERVAS MERVAS

Emily builds a strong welding future



Emily Giezen is making a big blast at Rheinmetall Defence Australia for her work as an armoured steel welder. The TAFE Queensland-trained welder and former engineering apprentice was one of only four applicants to secure a highly sought after position at the global defence company against 150 applicants.

In her first year at Rheinmetall, Emily enrolled in TAFE Queensland's ISO9606 Course in Fusion Welding. This course enables professional welders to upskill to the international welding standard required and accepted for precision welding of materials undertaken in industries such as Defence, Maritime and Aerospace.

This helped Emily perfect her skills using the latest augmented reality welding simulators to supplement live arc welding bay practices. Emily said using augmented reality welders was initially a challenge after years of welding a specific way throughout her career.

"Even if you think you are the world's best welder, it's definitely a tool that you can use to critique and improve your skills," Emily said.

"It's valuable whether you are starting out as a welder or even if you are at the end of your career; it's all about precision."

After completing the course, Emily was among four Rheinmetall employees sent to the company's German operations to learn welding processes around the construction of Mission Modules for the BOXER 8x8 Combat Reconnaissance Vehicle. Since returning from her time in Germany, Emily's welding expertise has come to the fore at Rheinmetall Australia's DIN 2303 weld test and welding blast/firing test qualifying which involved rigorous blast testing on armoured plate materials.

Emily was tasked with welding the openended blast boxes, which were then sent to Germany and blown up with 500 grams of dynamite.

"They are literally replicating a land mine going off underneath a combat reconnaissance vehicle, hence why they are called a blast test. The blast box had to stay in one piece to be considered a pass," Emily said.

The successful pass of DIN 2303 weld test and welding blast/firing test qualifying means that Rheinmetall MILVEHCOE factory based in Brisbane can now manufacture armoured vehicles for Rheinmetall on a global scale.

For more information about trade training, visit tafeqld.edu.au or call 1300 308 233 today.



Rheinmetall's armoured steel welder and former TAFE Queensland engineering apprentice, Emily Giezen demonstrating her welding skills at MILVEHCOE.

Barrett Communications

As with many small to medium sized businesses within Australia's Defence Industry, Barrett Communications has maintained a continuous and substantial export business to governments and defence forces globally, for over 45 years. Barrett Communications success is in part driven by its reputation for proven and intuitive ease of use high frequency (HF) and very high frequency (VHF) radio communications systems.

While HF radio is considered an older technology by some, it is still as relevant today and in recent years has experienced somewhat of a resurgence. As Andrew Burt, CEO at Barrett Communications, explains, "recent history has demonstrated a lack of resilience exists in our typical and physical communications infrastructure when impacted by natural disasters, such as earth-guakes and hurricanes. In the aftermath of such events, HF radio has proven itself to be not only rapidly deployable, but highly reliable in providing first responders immediate communications coverage for short, medium and long-range communications paths"

"In Australia we have been designing and manufacturing radio communications products from our facility in Bibra Lake, Western Australia for over 45 years" said Mr Burt. "For the past 20 years we have been supplying systems to the Australian Defence Force (ADF) for assistance programmes in Vanuatu and the Pacific islands, and ADF peacekeeping forces in East Timor and other regional conflict zones. Barrett Communications products are in use in every continent, and in over 150 countries globally, with products designed to operate in some of the most austere environments on the planet and have been field proven time and time again."

Many of Barrett's international customers have similar challenges to those faced by Australian government and industry, for which Barrett have proven solutions for military and government infrastructure contingency programs. These programmes



provide the resilience to recover from unforeseen events, which impact the ability to communicate through traditional communications channels. HF has established itself as the emergency communications medium because it's not dependent on the fixed infrastructure that mobile and other communications technology requires such as communications towers and the internet."

Mr. Burt says this move towards contingency planning is particularly noticeable in the US. "The US is very focused on building resilience into its critical infrastructure, from power stations to hospitals, and connecting small county airports using HF radio. The US has recognised that in areas prone to natural disasters or at risk of a manmade intervention, such as a cyber-attack, the first priority is to deliver emergency services and support recovery. All of which depend on the re-establishment of lost communications. HF radio is a key tool for the first responders, delivering rapidly deployed communications within minutes. Over the last two years we have seen increased sales in the US critical infrastructure space and believe America offers significant future market opportunities for HF communications."

In late 2020, Barrett Communications joined the C4 EDGE program and together with other Australian SME's will deliver a proof of concept demonstrator that displays the capability of Australia's Defence Industry to the Army in November 2021.

"As part of Australia's defence industry, we know we have solutions and products in production and a project road map that can deliver solutions to the Australian government for defence, infrastructure resilience and emergency response. The C4 EDGE program is an opportunity for us to demonstrate our capability" explained Mr Burt. "We see increased opportunities in Australia for our sovereign designed and manufactured products, using our Australian IP from our Australian owned company, providing jobs and opportunities for Australian's."



Skyfall-An Australian Ballistic Target Solution



PFI Aerospace is proud to unveil an Australian development program for low cost, high speed ballistic targets designed to provide enhanced local, area and theatre air defence training for the Australian Defence Force and allied nations.

The "Skyfall" program aims to provide a family of incoming missile surrogates which can be used by air defence systems to rehearse detection, tracking and engagement of ballistic weapons in flight.

Skyfall program lead Nick Green says "this development activity is directly aligned with the Australian Defence Force's capability roadmap for enhanced air defence capability. Skyfall stems from discussions with Defence primes on the anticipated training and qualification requirements for the Air 6500 integrated air defence program and the Royal Australian Navy's evolving long range maritime air defence system capabilities.

"Skyfall will provide the ADF and its allies with a mobile, flexible target surrogate which can be readily deployed and reliably launched from remote locations with minimal personnel requirements. The system will enable Defence to deploy and affordably train against ballistic weapons threats using Australian military ranges on an ongoing basis."

The Skyfall roadmap emphasises the ability to present air defence systems with multiple, simultaneous target presentations. The roadmap includes plans for a high speed, manoeuvring terminal stage target vehicle which can replicate the increasingly complex missile threats proliferating across the Indo-Pacific.

The first generation "Skyfall" target is based on a single stage, 70mm hydrogen fuelled rocket. Ballistic targets based on this engine will seek to replicate tactical ballistic weapons for training and qualification of local and area air defence systems.

A 200mm engine is in development and will commence live testing in Quarter four of 2021. This engine is intended to power ballistic targets up to the edge of space for use in training and qualification of theatre-scale air defence systems against strategic level threats. The Skyfall engine has a single moving part, meaning enhanced reliability and significantly reduced production costs.

The Skyfall technology roadmap emphasises rapid system development, leveraging advanced manufacturing techniques, to facilitate continuous capability responsiveness to changing threat parameters.

"Skyfall has been conceived from the outset as an evolutionary capability" says Green. "Ballistic weapons technology is in a phase

of exceptionally rapid change and traditional targets of opportunity, such as converted sounding rockets, no longer provide appropriate surrogate solutions. The few purpose manufactured ballistic targets that are available are high cost and have significant availability restrictions."

PFI Aerospace identifies the Skyfall program as having significant potential to contribute to the emergence of the Australian sovereign guided weapons manufacturing enterprise. "Skyfall provides a pathway for applied design and development which can cross-pollinate with operational rocket and missile systems" says Green. "Skyfall can provide the ADF with a means of exploring and prototyping lowering the costs of guided weapon manufacture, whilst expanding the potential opportunities for Australian industry."

Skyfall represents a low cost, high volume, customisable real world threat simulator. The product is scalable to meet client requirements with a shelf life counted in decades. It operates with a nonhazardous fuel and oxidiser and is not classified as explosive under the explosive regulations act, making it cheap and easy to transport.

PFI Aerospace has self-funded the Skyfall development program. An operationally ready Skyfall target system is planned to be available from 2023.

Products for Industry (PFi) has proven itself to be a successful and innovative company operating in the Australian Manufacturing Industry. With the strong basis of sound economic management, strong capabilities in project management and broadly based, skilled trade staff the company has expanded its operations into the Defence and Aerospace sectors.

Skyfall launched at Land Forces 2021 to enthusiastic reception.





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Franmarine is now using blockchain technology to facilitate the delivery of a consolidated underwater ships husbandry (cleaning, inspection, maintenance and repair) capability Nationally that has been formally recognised as a Sovereign Industrial Capability Priority.

The past 12 months has been a defining period for most if not all organisations yet despite the well-known challenges, Franmarine have met a key SICP project milestone having successfully become permanently established in Sydney, NSW to provide an increased level of underwater inservice support and sustainment to the Royal Australian Navy augmented by blockchain technology.

The technology solution benefits that relate to Franmarine's capability include realtime multi-user access to the underwater work site through agnostic integration with underwater hardware such as ROV and diver CCTV, automated reporting and immutable record keeping leading to complete transparency, and traceability all of which are now being realised using BioPass.

BioPass is the world's first blockchain based biofouling and marine biosecurity management platform that helps to reduce biofouling risk whilst simultaneously improving vessel operational efficiency and supporting marine biodiversity.

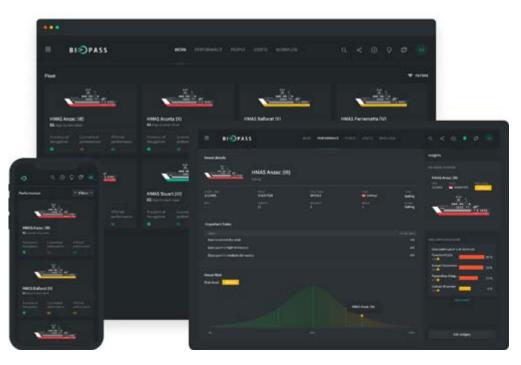
All vessel owners and operators have obligation to minimise marine biosecurity risks and environmental impacts. Relative to Defence, we see BioPass playing a significant role in enabling organic capability to collaborate with industry, contributing to biofouling management across fleet(s) together in a secure, effective, compliant, and transparent manner. Using BioPass all proof of work and records that pertain to biofouling management are permanently stored in an immutable manner for the lifetime of the asset in the blockchain. Should stakeholders wish to access this information, representing a BioPassPort, for Regulatory, Port entry and or maintenance requirements, permission to a pre-determined level of detail can be approved. BioPass enables Franmarine to manage biofouling on behalf of a customer holistically whilst also providing the customer with access to the end-to-end process.

Beyond the benefits that relate to biofouling management, we are excited to extend this technology across our broader underwater ships husbandry capability to realise improvements in efficiency and transparency that can be passed on to the end user.

Our objective at Franmarine is to lower the total cost of maritime asset ownership to our Defence and Industry partners.

Adam Falconer-West CEO Franmarine https://www.franmarine.com.au/





Is an internship your businesses missing link?

By Carl Spruce, Director of the Outsource Group (Outsource Institute (AUS) and the Australian Retail College).



Did you know that Google takes on average 1,500 interns annually? Some years they even take up to 3,000! Whilst I appreciate, we might not all be in a position to take on this volume of interns annually, the reason why more small to mid-sized businesses are now jumping on the internship bandwagon is because they recognise the talent and potential these individuals can bring to their organisations.

Personally, at Outsource Institute over the past 8 years we have hosted on average 2 interns annually. Some of the reasons why we have continued to welcome interns is because we have found that they have allowed us to:

- 1. Have a fresh set of eyes on our business systems and processes- Kira was studying a Master of Business majoring in Marketing when she undertook an internship with us. Kira redesigned our marketing plan and digital marketing strategy in such a way that it allowed us to strengthen our brand recognition and solidify our market position.
- 2. Apply the latest innovative business models fresh from the classroom to the workplace- Daniela interned with our organisation whilst studying her Master of Business, Entrepreneurship. Daniela helped us to develop a business plan which assisted us with attaining an Australian Government grant of \$500K.
- **3.** Focus on projects that would otherwise never get off the ground- Having Luke, a Bachelor of Engineering (Software Engineering) intern with us meant we were able to bring our website development project back in-house. This reduced the timeframes and costs associated with building a completely new website externally and also meant that we were able to upskill some of our existing team in the process giving us greater control over the entire system.

Interns provide a higher-than-average retention rate, which can benefit your business not only financially but also in building a more connected and inclusive culture.

I could go on with countless more examples of how taking on interns over the years has benefited our organisation, however I would rather encourage you to not just take my word for it but instead try it for yourself.

If you are open to taking on an intern, Outsource Institute has recently launched a new program, the **Advanced Trade Engineering Cadetship (ATEC)**. We have developed this program due to a high demand in particular from University students in Australia (specifically, international students) that have studied and completed either their Bachelor's and Master's in Engineering (Civil, Mechanical, Electrical) that are seeking work in their chosen engineering fields.

For more information on the ATEC interns that we currently are seeking to place, please contact Carl Spruce, on 1300 136 904.



3D printing – on-location, on-demand

Spare parts management is a critical and challenging element of maintaining Australia's capabilities in Defence. Operating in geographically remote or difficult to access locations part failure or unexpected damage can have a critical impact on land, air or naval vessels. The newly released **Mobile Smart Factory** by BIONIC Production GmbH, provides for the 3D printed metal and polymer parts on-demand and on-site, right at the location they are needed negating downtime and issues surrounding order and supply.

Extensive experience in design and 3D metal printing for aero-space, automotive and railway industries placed BIONIC Production in a key position to develop a fully automated 3D printing solution. Having researched their clients' requirements for 3D printing they discovered real issues existed with spare parts management. Dissatisfaction with spare part management was not a new issue. Identified in 2018 by PwC Strategy& the magazine predicted 3D printing was set to provide the solution. Coupling dissatisfaction with the growing uptake of 3D printing, **BIONIC Production set about developing** a simple solution requiring manageable effort and expense, yet flexible enough to be operated on-location and available ondemand for part production.

Issues with spare part management in terms of availability, costs and logistics exist in Australia. These issues apply equally to the Australian Defence Forces who have acquired vessels, aircraft and land vehicles from overseas manufacturers. Having a suitable production facility on-location stands to reduce the reliance on the need for overseas part supply. Additionally, series production or batch supply of a small number of parts on-site can be made in the Smart Factory as required. Moreover, the unit is fast, costefficient and provides an easy introduction to 3D printing technologies.

The *Mobile Smart Factory* is a complete additive manufacturing solution housed in two standard ISO 20ft shipping containers fully configured, water-proof and durable. The containers meet regulatory and technical requirements for shipping by air, sea, road or rail and are easily moved to remote geographic locations or offshore facilities. Within the two shipping containers, the entire AM process is conveniently integrated into one system. By using a high degree of automation, yet ensuring simplicity of operation, this complete package provides for part scanning, CAD design, 3D printing, and final post-processing. Current and damaged parts can be digitized, the file stored virtually, with data protection and security guaranteed. Once digitized it is possible to make changes or improvements to the original part. The completed file is transferred, or sent, to the 3D printing machine for the layer-by-layer 3D build. Postprocessing facilities are available if required. "Be it through the production of polymer and or metal parts on-site, we have designed a solution that covers the entire AM process,

from pre-processing to post-processing," says Dr. Johannes Schmidt, Senior Project Manager at BIONIC Production GmbH.

Due to its mobility the safest 3D metal printing process was carefully considered for inclusion. The challenges of powder handling, and instability of some powers such as titanium, saw wire arc technology installed as the preferred solution. Wire arc also offers a faster build speed but still uses a layer-by-layer process and can be used with virtually any weldable metal wire. In regard to polymer applications, the available process is fused deposition modelling producing a strong reliable part. Detailed specifications and documentation for each process step is provided along with a range of testing methods.

The convenience and flexibility of this system cannot be overstated. Each **Mobile Smart Factory** is tailor made to meet individual customer needs. The team at Raymax Applications in Sydney provide consultation and support to help identify the most suitable solution for each users' needs. They then advise in preparing the digitized files ready for use and providing on-site training of operators in the full use of the equipment inside the Mobile Smart Factory.

www.raymax.com.au Ph. +61 02 9979 7646



Is Your Business looking to achieve DISP accreditation?

Red Piranha's experienced cybersecurity team can help you obtain your Defence Industry Security Program (DISP) membership.

Whether you're an Australian business currently working with the Australian Defence Force or seeking to break into the Defence sector, it's fast becoming an essential requirement for all Australian Defence suppliers to hold an appropriate Defence Industry Security Program (DISP) level of membership to join the Australian Defence Organisation's supply chain. Having a DISP membership highlights your commitment to the industry and is an invaluable business development asset.

DISP exists to help businesses address the risks associated with providing services, products or capability to the Australian Defence Organisation. Managed by the Defence Industry Security Office (DISO), the intent of the DISP program is to both guide and assess businesses that may form part of a complex supply chain for Defence.

The DISP guidance and assessment encompasses processes, procedures, information technology and cybersecurity, physical security, and personnel security.

By assisting Australian businesses on their cybersecurity journey, Red Piranha can improve the overall resilience, security and reduce the associated risks of the Defence Organisation supply chain.

How does your business become DISP compliant?

The application process to successfully become a DISP Member is thorough and requires businesses to prove that their internal policies, processes, and procedures can meet the heightened Defence security requirements.

There are four key categories that DISP assesses. Meeting these core requirements requires a comprehensive security program which details your organisations:

Security Governance – outlining a positive governance and security culture by having clear accountability and responsibility plans, processes, and procedures in place, with appropriate practices highlighting sound planning, investigation and response, assurance and review processes, and proportionate reporting;

Information and Cybersecurity -

maintaining the confidentiality, integrity and availability of all official information, data, and communications

Personnel Security – ensuring your organisation's employees, contractors and suppliers are suitable to access Australian Government resources and meet an appropriate standard of integrity and honesty;



Are you DISP Cyber Compliant?

Physical security – providing a safe and secure physical environment for your employees, information, and assets.

DISP membership provides significant benefits to your business, including:

- Access to knowledge, training, advice, and analysis on security trends, threats, and mitigations to improve security planning and practices;
- Ability to engage with Defence and other industry providers to add value within security constraints;
- Access to Defence Security services that enable you to be ready to respond when responding or delivering contracts and tenders;
- At higher membership levels, the ability to sponsor and maintain Australian Government security clearances for your personnel; and
- Improved security resilience and cyber worthiness through strengthened information systems, security practices, and education.

Red Piranha's Crystal Eye XDR platform and integrated security services can help achieve these compliance areas with minimal investment of both time and money to make your business secure and compliant as quickly as possible. Thereby opening up lucrative defence contracts and tender opportunities for your business.

Why Red Piranha?

Red Piranha is Australia's leading developer and manufacturer of advanced cybersecurity technology and services. Crystal Eye XDR (Extended Detection & Response) protects, detects, and responds to threats across your whole organisation, all from a single unified platform. Securing your business and its data from the cloud to the endpoint with a range of integrated security controls. Red Piranha's comprehensive cybersecurity technology is 100% proprietary, and all IPs are internally owned. Red Piranha is 100% Australian owned and managed. This places Red Piranha in a unique position, as we are not a reseller of other third-party technology but the developer and manufacturer of our Australian-made products. We are an:

- ISO 27001 certified organisation
- Department of Defence Export certified
- Participant of the Department of Defence's D. Start Ignite Program
- ICT and Cyber supplier within the 2021 Australian Defence Sales Catalogue
- Downer Defence Systems Partner, developing an integrated, holistic information security program to support Australia's critical infrastructure
- Australian Defence Industry Awards Finalist 2020.

Australia can now join an exclusive set of nations including the United States of America, China, and Israel who can export cybersecurity technology to foreign governments via our Export — providing Australia with true sovereign level data integrity and cybersecurity.

As a sovereign, capable and committed partner to the defence industry, we understand regulatory requirements and how they impact businesses of all sizes from all sectors. Our suite of comprehensive cybersecurity solutions and services are designed to help ease the burden of compliance and capitalise on the opportunity that a DISP membership provides.

For further information on the DISP accreditation process and how our suite of cybersecurity solutions and services can assist your business, contact Red Piranha today.

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AIDN Young Achiever Award 2021 NOW OPEN!

Driven and talented young people are the key to the future of the Defence industry. In order to recognise individuals who may be future industry leaders, AIDN has created the AIDN Young Achiever Award

Nominations for the 2021 AIDN YAA are now open!

The AIDN Young Achiever Award (YAA) was created to recognise the important contribution made by young people in Australia's defence industry. The award is held at the AIDN Chapter level and the winner will compete for the national award.

AIDN invites you to demonstrate your achievements as a young professional by entering these awards in 2021.

Who can enter the award?

The Award is open to all members of Defence industry under the age of 30 (entrants must be under 30 years of age on 1 January 2021). You do not have to be a member of AIDN to enter but you must be nominated by a current financial member of an AIDN Chapter in your referees.

Why should I enter?

Winning the AIDN Young Achiever Award recognises your efforts, and demonstrates your achievements and your potential to your colleagues, clients and future employers.

How to enter

Click here for the entry form

Nominations close on **8 October 2021** at **5pm AEST**.



AIDN National

info@aidn.org.au



AIDN NSW 27th ANNIVERSARY DINNER INVITATION

Thales Australia, Precision Metal Group and the NSW Government proudly present the AIDN NSW 27th Anniversary Dinner.

When	Thursday 12th August 2021		
Where	Four Seasons Hotel, 199 George St, Sydney		
Time	6.30pm pre dinner drinks and networking 7.30pm seated for dinner		
Cost	\$180 incl. GST per member or guest \$260 incl. GST per non-member Table of 10 \$1,620 member, \$2,340 non-member		
Dress	Black tie with miniatures or dark lounge suit Ladies equivalent		
RSVP	4th August 2021		
MC	Katherine Ziesing, ADM		

Speakers

The Hon. Melissa Price MP, Minister for Defence Industry - invited The Hon. Stuart Ayres MP, Minister for Jobs, Investment, Tourism and Western Sydney Chris Jenkins, Chief Executive Officer, Thales Australia Sarah Pavillard, CEO & Founder, Adroita

Invited Distinguished Guests

Chief of the Defence Force Chief of Navy, Chief of Army, Chief of Air Force Chief Defence Scientist Deputy Secretary, Capability Acquisition and Sustainment Group Deputy Secretary, Defence Estate & Infrastructure

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